2nd INTERNATIONAL CONGRESS ON EMERGENCY MEDICINE "ICon-EM"

2. ULUSLARARASI ACİL TIP KONGRESİ

10-13 NOVEMBER 2022

Gloria Golf Resort / Antalya - Türkiye

ABSTRACT BOOK

Sevgili Meslektaşlarım

Türkiye Acil Tıp Vakfı Tarafından düzenlenecek olan 2. Uluslararası Acil Tıp Kongresi, bu yıl 10-13 Kasım 2022 tarihleri arasında Gloria Golf Resort Otel, Belek/Antalya'da gerçekleştirilecektir.

Kongremizde saygın bilim insanlarının deneyim ve çalışmalarının bu bilimsel programda yer alması için şimdiden çalıştığımızı belirtmek isteriz. Acil tıp uzmanları, acil tıp asistanları, acil servis pratisyen hekimleri ile paramedik ve eczacıların da katılabileceği sağlık camiasının en önemli yapı taşlarını bir araya getirmeyi planlıyoruz. Kongremize katılacak olan sağlık çalışanlarımızın mesleki uygulamalarına katkılar sunacak teorik ve pratik uygulamalar yanında çalışma şartları ve özlük haklarına olumlu katkılar sunacak muhatapları da bir araya getireceğimizi belirtmek isteriz. Acil Tıbbın içerisinde yer alan tüm bölümleri buluşturmaya çalışırken herkesin bilimsel olarak heybesini doldurabileceği bir kongreye hazırlanıyoruz. Amacımız ülkemiz ve birçok ülkeden seçkin konuşmacılar ve katılımcılar ile yenilikçi uluslararası kongre yapmaktır. Kongre genel bilgileri ve sponsorluk aktiviteleri bu kitapçık içinde yer almaktadır.

Şimdiye dek kongrelerimize çeşitli şekillerde destek veren firmalara, firmaların yöneticilerine ve kongremizde güler yüzleriyle, yorulmak bilmeden renk katan firma çalışanlarına çok teşekkür ederiz. Kongremize stant, aktivite ve hekim katılımıyla katkılarınızı bekliyoruz.

Bilgi ve deneyimlerimizi paylaşacağımız, dostluklarımızı pekiştireceğimiz 2. Kongremize, bundan önce olduğu gibi desteklerinizi ve katkılarınızı bekler Türkiye Acil Tıp Vakfı olarak saygılarımızı sunarız. Kongreye göstereceğiniz ilgi için şimdiden teşekkür ederiz.

Saygılarımızla,

Türkiye Acil Tıp Vakfı Yönetim Kurulu

KONGRE DÜZENLEME KURULU

Kongre Başkanı
Prof. Dr. Şahin ÇOLAK

Kongre Sekreteryası
Prof. Dr. Hakan OĞUZTÜRK
Doç. Dr. Abuzer COŞKUN
Doç. Dr. Akkan AVCI
Doç. Dr. Avni Uygar SEYHAN
Doç. Dr. Fatih SELVİ
Doç. Dr. Melih YÜKSEL
Doç. Dr. Sinan KARACABEY
Dr. Öğrt. Adnan YAMANOĞLU

Kongre Bilim Kurulu

Prof. Dr. Cemil KAVALCI
Prof. Dr. Emine EMEKTAR
Prof. Dr. Fatih Esad TOPAL
Prof. Dr. Halil KAYA
Prof. Dr. Hayriye GÖNÜLLÜ
Prof. Dr. Mehmet Akif KARAMERCAN
Prof. Dr. Mehtap BULUT
Prof. Dr. Şevki Hakan EREN
Prof. Dr. Yavuz KATIRCI
Prof. Dr. Yunsur ÇEVİK
Doç. Dr. Afşin Emre KAYIPMAZ
Doç. Dr. Aynur ŞAHİN
Doç. Dr. Erdem ÇEVİK
Doç. Dr. Halil DOĞAN
Doç. Dr. İsmail TAYFUR
Doç. Dr. Mücahit KAPÇI
Doç. Dr. Tuba CİMİLLİ ÖZTÜRK
Doç. Dr. Yavuz YİĞİT
Doç. Dr. Yücel YÜZBAŞIOĞLU
Doç. Dr. Erdal DEMİRTAŞ
Dr. Öğr. Üyesi Semih KORKUT
Dr. Öğr. Üyesi Arif Onur EDEN

Foreign Speaker

Öncü Sancak (İsveç)
Eric Revue (France)
Anna Q. Yaffee (USA)
Bulut Demi□rel (United Kingdom)
Carlos Garcia (Mexico)
Brent Morgan (USA)
Ziad Kazzi (USA)
Bruno Megarbane (France)
Alexandra Turner (United Kingdom)
Gregor Prosen (Slovenia)
Denise Battaglini (Italy)
Ramkumar Swamithane (Qatar)
Thirumoothy Suresh Samy Kumar (Qatar)
Shabbir Ahmed (Qatar)
Samed Şems Vahdati (Iran)
Yavuz Yiğit (Qatar)
Zoe Smeed (United Kingdom)
Gordon Mcnaughton (United Kingdom)
Ryan Mchenry (United Kingdom)
Kirst Ray (United Kingdom)
Christopher Macdonald (United Kingdom)
Mojtaba Chahardoli (Iran)
Olga Zyneechivcskhi (United Kingdom)
Ali□ Al Rawaf (Iraq)
Badria Alhatali (Umman)
Hamid Reza Hatamabadi (Iran
Irshad Ali Shaikh (Who Middle East)
Johannes Wittig (Austria)
Musab Al -Khateeb (BAE)

Kongre Genel Düzenleme Kurulu

Prof. Dr. Mehmet Tahir Gökdemir
Prof. Dr. Özgür Söğüt
Prof. Dr. Sadık Girişgin
Prof. Dr. Ziad Kazzı
Prof. Samed Şems Vahdati
Doç. Dr. Abdullah Algın
Doç. Dr. Asım Kalkan
Doç. Dr. Burcu Genç Yavuz
Doç. Dr. Ertuğrul Altınbilek
Doç. Dr. Ethem Acar
Doç. Dr. Fatih Doğanay
Doç. Dr. Gülşen Akçay Çığşar
Doç. Dr. Hüseyin Cahit Halhallı
Doç. Dr. Mehmet Özgür Erdoğan
Doç. Dr. Murat Yücel
Doç. Dr. Mustafa Ahmet Afacan
Doç. Dr. Nihat Müjdat Hökenek
Doç. Dr. Nurşah Başol
Doç. Dr. Orhan Delice
Doç. Dr. Ramazan Güven
Doç. Dr. Ramazan Köylü
Doç. Dr. Rohat Ak
Doç. Dr. Serhat Koyuncu
Doç. Dr. Serkan Doğan
Doç. Dr. Songül Araç
Doç. Dr. Umut Ocak
Assistant Prof. Effie Polyzogopoulou (Greece)
Assistant Prof. Jonathan David De Olano (USA)
Dr. Öğrt. Üyesi Çağrı Serdar Elgörmüş
Dr. Öğrt. Üyesi Dilay Satılmış
Dr. Öğrt. Üyesi Erdal Yılmaz
Dr. Öğrt. Üyesi Hüseyin Ergenç
Dr. Öğrt. Üyesi Mustafa Çalık
Dr. Öğrt. Üyesi Oğuzhan Bol
Dr. Öğrt. Üyesi Taner Şahin
Dr. Badria Ali Al-Hatalı (Umman)
Dr. Eric Revue (France)
Dr. Olga Zmijewska-Kaczor (United Kingdom)
Uzm. Dr. Adem Az
Uzm. Dr. Agit Akgül
Uzm. Dr. Bahadır Karaca
Uzm. Dr. Bulut Demirel
Uzm. Dr. Davut Tekyol
Uzm. Dr. Emre Şancı
Uzm. Dr. Ertuğrul Altuğ
Uzm. Dr. Gökhan Eyüpoğlu
Uzm. Dr. İbrahim Sarbay
Uzm. Dr. Mazlum Kılıç
Uzm. Dr. Mehmet Tatlı
Uzm. Dr. Sedat Özbay
Uzm. Dr. Sümeyye Çakmak
Uzm. Dr. Tarık Akdemir
Uzm. Dr. Tuba Betül Ümit
Uzm. Dr. Nedim Uzun

* Yönetim Kurulu Üyeleri ünvana ve isme göre alfabetik olarak dizilmiştir.

BİLİMSEL PROGRAM

NOVEMBER 10, 2022, THURSDAY	
ORKIDE HALL	
13:00-14:00	OPENING (ORKIDE HALL)
14:00-14:45	**PANEL 1 / GUIDELINE UPDATES** Chairs: **Burcu Genç Yavuz - Hakan Oğuztürk** Resuscitation updates pre-hospital, **Gülşah Çıkrıkçı Işık** Resuscitation updates airway - breathing, **Ali Kemal Erenler** Resuscitation updates airway - circulation, **Can Aktaş** Resuscitation updates medication-morphine, **Mehmet Özgür Erdoğan**
14:45-15:00	**COFFEE BREAK**
15:00-16:15	**PANEL 2 / BEST PRACTICE** Chairs: **Halil Doğan- Atıf Bayramoğlu** Best Practice: Rapid sequence intubation, **Emre Şancı** Best Practice: Procedural sedation, **Şükrü Koçkan** COPD/ ASTHMA treatment updates, **Münire Hande Gölgeli** Thrombolytic therapy updates, **Nurşah Başol**
16:15-18:00	**SPECIAL SESSION** Chairs: **Şahin Çolak, Hakan Oğuztürk, İsmail Tayfur** Sıhhiye-i Askeriye ve Umumiyede Tayyarelerden edilecek istifade, **Cevdet Erdöl** Use of the air ambulance at the present time, **Semih Korkut**

10 KASIM 2022, PERŞEMBE	
KARDELEN SALONU	
13:00-14:00	AÇILIŞ KONUŞMALARI (ORKİDE SALONU)
14:00-14:45	**KARDİYAK ACİL YÖNETİMİ** Oturum Başkanları**: Mehmet Tahir Gökdemir - Okhan Akdur** Bradiaritmi ne aşamada?, **Gülşen Aksay Çığsar** Taşiaritmi yönetimini en kısa nasıl anlatılır?, **Yücel Yüzbaşıoğlu** Akut Kardiyak yetmezlik yönetiminde yenilikler, **Cihan Bedel** Hangi EKG zor?, **Ahmet Demir**
14:45-15:00	**KAHVE ARASI**
15:00-16:15	**KRİTİK HASTA YÖNETİMİ** Oturum Başkanları: **Latif Duran - Abuzer Coşkun** Acilde mekanik ventilatörü kim doğru kullanıyor?, **Ramazan Köylü** Kritik hasta yönetiminde görüntülemeye gerek var mı? **Tamer Çolak** Hava ambulansında kritik hasta yönetimi, **Mehmet Ali Ceyhan** Kritik hastada kan gazı nasıl değerlendirilmeli?, **Fatih Ahmet Kahraman**

10 KASIM 2022, PERŞEMBE	
MENEKŞE SALONU	
13:00-14:00	AÇILIŞ KONUŞMALARI (ORKİDE SALONU)
14:00-14:45	**ACİL SERVİSLERDE RİSK YÖNETİMİ** Oturum Başkanları: **İsmail Tayfur, Havva Şahin Kavaklı** Özel hasta gruplarında risk değerelendirilmesi, **Emre Şengün** Hemşirenin eline iğne battı, **Özgür Şahan** Personel şişedekini su zannetmiş: MSDS Formları, **Mehmet Tatlı** Düşme riski değerlendirmesi ve önlenmesi, **Mahmut Yaman**
14:45-15:00	**KAHVE ARASI**
15:00-16:15	**AKILCI İLAÇ KULLANIMI** Oturum Başkanları: **Gülhan Kurtoğlu Çelik, Tuba Cimilli Öztürk** Bu hastaya antibiyotik kullanmalı mı?, **Erhan Altunbaş** Hocam midem ağrıyor: PPI'lar hangi hastalarda?, **Kemal Şener** Bu ilaç bir işe yaramadı: Acil Serviste ilaç etkileşimleri, **Onur Tokoçin** Hocam bu torba hep benim ilaçlar: acilde polifarmasi yönetimi, **Sümeyye Çakmak**

NOVEMBER 11, 2022, FRIDAY	
	ORKIDE HALL
08:45-10:00	**PANEL 3 / EMS** Chairs: **Hamid Reza Hatamabadi, Mehmet Ergin** EMS in Europe Turkey Pre-Hospital emergency health services, **Arif Onur Eden** EMS in Asian- Iran, **Hamid Reza Hatamabadi** EMS in USA EMS refugees and war, **Erdem Çevik** Crisis management, **Mehmet Ergin**
10:00-10:15	**COFFEE BREAK**
10:15-11:30	**PANEL 4 / ED MANAGEMENT& LEADERSHIP** Chairs: **Şahin Çolak- Halil Doğan** Leadership and emergency medicine, **Arzu Denizbaşı Altunok** Management of the emergency department in Turkey, **Oktay Eray** Management of the emergency department in Middle East, **Bedria Alhatali** Emergency medicine in Sweden, **Öncü Sancak**
11:30-12:15	**SATELLITE SYMPOSIUM (ORKIDE HALL)** Three actions one drug- with the pharmac efficacy of Cabral **İsmail Tayfur, Barkın Berk**
12:15-13:30	**LUNCH**
13:30-14:45	**PANEL 5 / COVID-19** Chairs: **Umut Ocak, Zeynep Kekeç** Pandemics are our part of future:Covid-19-Monkeypox-others, WHO**, Irshad Ali Shaikh** Hospital administration in the COVID-19 pandemic, **Eric Revue** Pandemic management in university emergency services, **Erkman Sanrı** Air ambulance transport in pandemic conditions, **Rüştü Okan Erol**
14:45-15:30	**SATELLITE SYMPOSIUM (ORKIDE HALL)** A new era with digitalization in ECG Analysis in the emergency department **Fatih Ahmet Kahraman, Nazlı Görmeli Kurt**
15:30-15:45	**COFFEE BREAK**
15:45-17:00	**PANEL 6 / GLOBAL EMERGENCY MEDICINE** Chairs: **Ramazan Güven, Oktay Eray** Global Emergency Medicine in USA, **Anna Q. Yaffee** Social Media and Leadership, **Bulut Demirel** Emergency Medicine in MEXICO, 37 years of experience, **Carlos Garcia** Updates in Research in Paediatric Emergency Medicine**, Alexandra Turner**
17:00-18:15	**PANEL 7 / TOXICOLOGY** Chairs: **Aynur Şahin, Arzu Denizbaşı** Medical toxicology fellowship training in USA, **Brent Morgan** Emergency Medicine Implications of a Dirty Bomb in Ukraine, **Ziad Kazzi** Extracorporeal treatment updates in toxicologic emergencies, **Badria Alhatali** New antidotes in clinical practice, **Bruno Megarbane**

11 KASIM 2022, CUMA	
KARDELEN SALONU	
09:00-10:15	**NÖROLOJİK ACİLLER** Oturum Başkanları: **Cahfer Güloğlu, Cemil Kavalcı** İnme hastasının acil yönetimi, **Gülhan Kurtoğlu Çelik** Diffüzyon beyin MR normal, ne yapmalı?, **Fatih Doğanay** Tromboza ne yapmalı? Mekanik mi? Medikal mi?**, Ali Sağlık** Hangi baş dönmesi acildir? dönen ne?, **Derya Öztürk**
10:15-10:30	**KAHVE ARASI**
10:30-11:45	**ACİL SERVİSTE İNVAZİV GİRİŞİMLER** Oturum Başkanları: **Recep Demirhan, Şevki Hakan Eren** Acil Serviste Kardiyovasküler İşlemler, **Orhan Gökalp** Acilde torakotomi ve krikotirotomi yapabilir miyiz?, **Suna Eraybar Atmaca** Santral venöz kateter ve diyaliz Kateteri nereden yapalım?, **Oğuzhan Bol** Tanısal girişimler (LP, Parasentez, Periton Lavaj) Yapalım mı?, **Metin Yadigaroğlu** Özofageal, Rektal, Göz, Burun ve Kulaktan yabancı cisim çıkaralım mı?, **Ahmet Melih Savaş**
11:45-12:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Üç etki tek ilaç - Cabral'in farmakolojik etkililiği **İsmail Tayfur, Barkın Berk**
12:30-13:30	**ÖĞLE YEMEĞİ**
13:30-14:45	**KILAVUZ GÜNCELLEMELERİ** Oturum Başkanları: **Yusuf Yürümez, Hayriye Gönüllü** Hipertansif acil yönetiminde ne değişti?, **Songül Araç** Pulmoner emboli kılavuzu ne aşamada?, **Mehmet Oğuzhan Ay** GIS Kanamalarında sınıflama mı kılavuz mu?, **Hüseyin Şahin** SVO kılavuzu ne diyor?, **Sedat Özbay**
14:45-15:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Acil Serviste EKG Analizinde Dijitalleşme ile Yeni Dönem **Fatih Ahmet Kahraman, Nazlı Görmeli Kurt**
15:30-15:45	**KAHVE ARASI**
15:45-17:00	**PULMONER ACİLLER** Oturum Başkanları: **Halil Kaya, Emine Emektar, Mehmet Okumuş** Akut Dispneye Nasıl Yaklaşmalı?, **Birdal Yıldırım** HFNO/BPAP/Non-İnvaziv MV, **Murat Yücel** Acilde Pulmoner Hipertansiyon, **Pırıl Koçak** KOAH-ASTIM Yeni Tedavi Stratejileri, **Gökhan Eyüpoğlu**
17:00-18:15	**GÜNCEL BİYOBELİRTEÇLER** Oturum Başkanları: **Yunsur Çevik, Mücahit Kapçı** Toksikolojide yeni Biyobelirteçler var mı?, **Fatih Selvi** Enfeksiyonel Biyobelirteçlerinden Hangileri Değişti?, **Erhan Arıkan** Kardiyak ve pulmoner Biyobelirteçler hala güncel mi?, **Abdurrahman Yılmaz** Resusitatif Biyobelirteçlere gerek kaldı mı?, **Müge Arslan**

11 KASIM 2022, CUMA	
	MENEKŞE SALONU
09:00-10:15	**ACİLDE SEDOANALJEZİ** Oturum Başkanları: **Fatih Doğanay, Cihan Bedel** Acilde Sedoanaljezi'de güncel kılavuzlar, **Ahmet Kayalı** Akut ağrı yönetimi, **Ahmet Özbek** Kronik ağrı yönetimi, **Rohat Ak** Girişimsel işlemlerde Sedoanaljezi, **Yeşim İşler**
10:15-10:30	**KAHVE ARASI**
10:30-11:45	**ACİL BİLİMSEL DERGİ VE MAKALELER** Oturum Başkanları: **Mehmet Ali Ceyhan, Serkan Doğan** Dünyada acil tıp dergileri, **Taner Şahin** Ülkemizde acil tıp dergileri, **Serkan Günay** Acil tıp makalelerinin literatürdeki Yeri, **Enes Güler** En çok atıf alan acil tıp makaleleri, **Hakan Özerol**
11:45-12:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Üç etki tek ilaç - Cabral'in farmakolojik etkililiği **İsmail Tayfur, Barkın Berk**
12:30-13:30	**ÖĞLE YEMEĞİ**
13:30-14:45	**AFET VE SAVAŞTA TAKTİK TIPTAN YOĞUN BAKIMA SÜREÇ YÖNETİMİ** Konuşmacılar: **Bedia Gülen, Bahadır Karaca** Afet Türleri Taktik Tıp, **Murat Tepe** Hasar Kontrol Yaklaşımı ve Stereotip Dirençlerin Aşılması, **Burak Çelik** Sivil ve Askeri Yaralanmalarda Farklılıklar: Suriyenin Kuzeyinden Örnekler**, Mehmet El İdris** Travma Hastalarında Dahili Sorunlar; **Mustafa Çetin** Küresel Gözlerin Takibinde Egzejare Sansasyonel Durumların Yönetimi, **Bahadır Karaca**
14:45-15:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Acil Serviste EKG Analizinde Dijitalleşme ile Yeni Dönem **Fatih Ahmet Kahraman, Nazlı Görmeli Kurt**
15:30-15:45	**KAHVE ARASI**
15:45-17:00	**HAVAYOLU YÖNETİMİ** Oturum Başkanları: **Suna Eraybar Atmaca, Ertuğrul Altunbilek, Ahmet Afacan** Riskli Erişkin Hastada Havayolu Yönetimi, **Kaan Yusufoğlu** Pediatrik Hastada Havayolu Yönetimi, **Mazlum Kılıç** RSI'de Püf Noktalar, **Omay Sorgun** Zor Entübasyon Senaryoları, **Bilge Kağan Sektiroğlu**
17:00-18:15	**RENAL ACİLLER** Oturum Başkanları: **Songül Araç, Mehmet Oğuzhan Ay, Serhat Koyuncu** Akut böbrek yetmezliğinde neye dikkat edelim?, **Meral Yıldırım** Eyvah diyalizde hasta fenalaştı!, **Hande Akbal Kahraman** Rabdomyoliz, **Onur İncealtın** Her renal kolik gerçekten renal kolik mi?, **Büşra Bektaş**
18:15-19:00	**10 DAKİKADA BENİ İKNA ET** Oturum Başkanları: **Avni Uygar Seyhan, Semih Korkut** Kritik hastalarda dengeli Solüsyonlar mı?, **Muhammed Furkan Özden** Travmatik omurga yaralanmasında MR rutin olmalı mı?, **Müslüm Mönür** Uyanma inmesinde trombolitik verelim mi?, **Rabia Birsen Tapkan** Kardiyopulmoner resüsitasyonda yerli otomatik CPR Cihazı, **Sinan Apaydın**

NOVEMBER 12, 2022 STURDAY	
	ORKIDE HALL
09:00-10:15	**PANEL 8 / CARDIOVASCULAR UPDATES** Chairs: **Nihat Müjdat Hökenek - Ahmet Demircan** ST segment elevation myocardial Infarction, **Gregor Prosen** More than ACS: potentially lethal causes of chest pain-(Using ECHO), **Ali Rawaf** Artificial Intelligence in cardiovascular emergencies, **Göksu Bozdereli Berikol** Non-ST segment elevation myocardial infarction, **Mustafa Altay**
10:15-10:30	**COFFEE BREAK**
10:30-11:45	**PANEL 9 / CRITICAL CARE** Chairs: **Bülent Erdur - Mücahit Kapçı** Stroke, **Onur Karakayalı** Sepsis, **Banu Arslan** New insights in MV and personalized therapies for ARDS, **Denise Battaglini** Evidence and Perspectives on the Use of Hemoperfusion, **Hilmi Erdem Sümbül**
11:45-12:30	**SATELLITE SYMPOSIUM (ORKIDE HALL)** **Bleeding management in patients using anticoagulants** Moderator: **Ramazan Güven** Speaker: **Özgür Söğüt**
12:30-13:30	**LUNCH**
13:30-14:45	**PANEL 10 / EDUCATION** Chairs: **Polat Durukan, Sinan Karacabey** Simulation in emergency medicine education, **Musab Al- Khateeb** Emergency medicine education in the world, **Ramkumar Swamithane** Emergency medicine education in the pandemic, **Thirumoothy Suresh Samy Kumar** Impact of appraisal on performance management, **Shabbir Ahmed**
14:45-15:30	**SATELLITE SYMPOSIUM (ORKIDE HALL)** Moderator: **Doç. Dr. Burcu Genç Yavuz** Hypertension management in the emergency department
15:30-15:45	**COFFEE BREAK**
15:45-17:00	**PANEL 11 / TRAUMA** Chairs: **Yavuz Katırcı, Samad Shams Vahdati** Management of trauma patients : are there differences between countries in the world?, **Sinan Karacabey** Intra-arrest ventilatio, **Johannes Wittig** Mortality-reducing management in pelvic fractures, **Samad Shams Vahdati** Emergency medicine in Qatar, **Yavuz Yiğit**
17:00-18:15	**PANEL 12 / EMERGENCY SCENARIOS AND DİSASTER** Chairpersons: **Figen Coşkun, Mehtap Bulut** Pre-Hospital Emergency Health Services, **Zoe Smeed** Unusual Traumas in the ED, **Gordon McNaughton** How poverty affects the Emergency Department admissions?, **Ryan McHenry** Simulation in Medical School Students; An Emergency Medicine View, **Kirst Ray** The Importance of Hot and Cold Debriefing, **Christopher Macdonald**
18:15-19:00	**SATELLITE SYMPOSIUM (ORKIDE HALL)** The importance of using Hemostatic Agents in Traumatic Incisions **Melih Yüksel, Mustafa Çalık**

12 KASIM 2022, CUMARTESİ	
KARDELEN SALONU	
09:00-10:15	**TRAVMA VE ATLS ACİLLERİ** Oturum Başkanları: **Ali Kocataş, Latif Duran, Süleyman Çetinkunar** Hastane öncesi travma hastasının yönetimi-Kılavuz(lar) ne diyor?**, İshak Şan** Ajite travma hastasının yönetimi, **Ertan Cömertpay** Ne kadar sıvı ne kadar kan?, **İbrahim Altundağ** Total sirkülatuvar arrest, **Tuba Betül Ümit**
10:15-10:30	**KAHVE ARASI**
10:30-11:45	**GERİATRİK HASTA YÖNETİMİ** Oturum Başkanları: **Ahmet Baydın, Turgut Deniz** Yaşlı hastada sıvı yönetimi-dolu mu boş mu?, **Adem Kaya** Yakını kim! yaşlı ihmali ve istismarı, **Fatih Tanrıverdi** Yaşlı hastanın bilinç değerlendirmesi-Hastanız Hep Böyle miydi?, **Dilay Satılmış** Geriatrik hastanın acil bakım kalitesi, **Orhan Delice**
11:45-12:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Antikoagülan kullanan hastalarda kanama yönetimi Moderatör: **Ramazan Güven** Konuşmacı: **Özgür Söğüt**
12:30-13:30	**ÖĞLE YEMEĞİ**
13:30-14:45	**CPR YÖNETİMİ** Oturum Başkanları: **Sadık Girişgin, Ayhan Aköz** Erişkin temel yaşamı nasıl İleri yaşama aktarmalı?, **Önder Tomruk** Pediatrik yaşam desteği hala büyümedi mi?, **Hacı Mehmet Çalışkan** Yenidoğan resusitasyonu hala özel mi?, **Tarık Acar** Göğüs kompresyonu konvansiyonel mi kişiye göre mi olmalı?, **Gözde Karabay**
14:45-15:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Moderatör: **Doç. Dr. Burcu Genç Yavuz** Acil Serviste Hipertansiyon Yönetimi
15:30-15:45	**KAHVE ARASI**
15:45-17:00	**CPR'DA ÖZEL DURUMLAR** Oturum Başkanları: **Zerrin Defne Dündar, Akkan Avci** Acil Tıpta REBOA'nın Yeri: son güncellemeler, **Mücahit Avcil** Çığ ve donmalarda yeni gelişmeler, **Miray Tümer** Gebelerde CPR değişti mi?, **Tuba Cimilli Öztürk** Hayvan ısırıklarında ve sokmalarında CPR Özel mi?, **Alp Giray Aydın**
18:15-19:00	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Travmatik Kesilerde Hemostatik Ajan Kullanımının Önemi **Melih Yüksel, Mustafa Çalık**

12 KASIM 2022, CUMARTESİ	
MENEKŞE SALONU	
09:00-10:15	**ACİLDE YAPAY ZEKA VE KALİTE** Oturum Başkanları: **Gülşen Aksay Çığşar, Melih Yüksel** Dünden yarına simülasyon, **Özge Kibici** Acil tıpta yapay zeka kullanımı, **Sevilay Vural** Tele tıp; gerekli mi?, **Ahmet Çolakoğlu** Acil tıpta sosyal medya, **İbrahim Sarbay**
10:15-10:30	**KAHVE ARASI**
10:30-11:45	**ADLİ OLGU BİLDİRİMLERİ VE AYDINLATILMIŞ ONAM SÜREÇLERİ (ETİK VE HUKUKİ BALIŞ)** Oturum Başkanları: **Fatih Selvi, Abdurrahman Yılmaz** Acil tıp uygulamalarında aydınlatılmış onam, **Arif Hüdai Köken** Hekim hakları, **Adem Az** Şiddet ve acil, **Hakan Aydın** Hasta hakları ve etik yaklaşım, **Dijan Tav Şimşek**
11:45-12:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Antikoagülan kullanan hastalarda kanama yönetimi Moderatör: **Ramazan Güven** Konuşmacı: **Özgür Söğüt**
12:30-13:30	**ÖĞLE YEMEĞİ**
13:30-14:45	**TOKSİKOLOJİK ACİLLER** Oturum Başkanları: **Ahmet Sebe, Mehmet Bankir** Toksik ateş, **Önder Yeşiloğlu** Toksin ilişkili şok, **Yunus Emre Özlüer** Pulmoner toksisite, **Halil İbrahim Akdoğan** Hangi hastada aferez?, **Merter Gümüşel**
14:45-15:30	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Moderatör: **Doç. Dr. Burcu Genç Yavuz** Acil Serviste Hipertansiyon Yönetimi
15:30-15:45	**KAHVE ARASI**
15:45-17:00	**GEBELİKTE ACİL** Oturum Başkanları: **Hakan Oğuztürk, Ethem Acar** Kus kus nereye kadar? hiperemezis gravidarum?, **Serkan Bilgin** Pereklampsi-eklampsi yönetimi?, **Hüseyin Aygün** Yetiş doktor bebek geliyor! acil doğum, **Betül İşcan** Gebelikte travma yönetimi, **Nurdan Şahin Yılmaz**
17:00-18:15	**UZMAN ATIŞMASI** Oturum Başkanları: **Kenan Ahmet Türkdoğan, Hakan Hakkoymaz** CPR da rutin ultrason gerekli mi, yoksa gereksiz mi?, **Özge Koçak - Necmettin Sutaşır** Ağrı yönetiminde Ketamin puşe mi, hızlı infüzyon mu?, **Ertuğrul Altuğ - Osman Sönmez** OHCA'de Hipotermi mi, Normotermi mi?, **Murat Bozkurt - Ayşe Dilara Öztermeli** Kardiyak Arrestte Supraglottik Havayolu tercih edilmeli / edilmemeli, **Burcu Bayramoğlu - İzzet Ustaalioğlu**
18:15-19:00	**UYDU SEMPOZYUMU (ORKİDE SALONU)** Travmatik Kesilerde Hemostatik Ajan Kullanımının Önemi **Melih Yüksel, Mustafa Çalık**

NOVEMBER 13, 2022 SUNDAY	
	ORKIDE HALL
08:30-09:45	**PANEL 13 / PANELEMERGENCY IMAGING** Chairs: **Mehmet Özgür Erdoğan - Nihat Müjdat Hökenek** Innovations in ultrasound guided interventional procedures, **Mojtaba Chahardoli** Ultrasonography in resuscitation, **Olga Zyneechivcskhi** Angiography, Bronchoscopy, Endoscopy in the Emergency Department: who and when?, **Kaan Yusufoğlu** Emergency and critical care ultrasound, **Zeki Ateşli**
09:45-10:00	**COFFEE BREAK**
10:00-11:15	**PANEL 14 / RESEARCH** Chairs: **Oktay Eray, Mehmet Akif Karamercan** How can i write a good article?, **Oktay Eray** Editorial: the article that editor liked, **Nihat Müjdat Hökenek** How to be a good reviewer, **Ahmet Taner Sümbül** Predatory and legitimate publishing, **Özgür Söğüt**

13 KASIM 2022, PAZAR	
	KARDELEN SALONU
08:30-09:45	**ENDOKRİN ACİLLER** Oturum Başkanları: **Tayyibe Saler, Özgür Söğüt** Hiperglisemik durumlar, **Hüseyin Ergenç** Adrenal aciller, **İlhami Demirel** Tiroid acilleri, **Onur Kaplan** Hipoglisemi, **Emine Ayşe Şahin**
09:45-10:00	**KAHVE ARASI**
10:00-11:15	**PEDİATRİK ACİLLER** Oturum Başkanları: **Asım Kalkan, Mustafa Çalık** Tek semptom: kusma! şaştım kaldım!, **Özgür Deniz Sadioğlu** Çocuk hastada şok senaryoları, **Hüseyin Gürbüz** Çocuk hastada solunum yetmezliği, **Cihat Yel** Ensefalopatili çocuk hastaya yaklaşım, **Halil Alışkan**

13 KASIM 2022, PAZAR	
	MENEKŞE SALONU
08:30-09:45	**ACİL PSİKİYATRİK HASTA YÖNETİMİ** Oturum Başkanları: **Murat Yücel, Kaan Çelik** Acilde akut ajitasyon yönetimi, **Cüneyt Arıkan** Küresel ruh sağlığı bozuklukları: Ortak dil oluşturmalı mıyız?, **Mehmet Göktuğ Efgan** Bu çocuğa bir haller oldu: pediatrik psikiyatrik hastalar, **Nalan Gökçe Çelebi Yamanoğlu** Yaşlı hastada kabus: geriatrik delirium ve psikoz, **Adem Çakır**
09:45-10:00	**KAHVE ARASI**
10:00-11:15	**GASTROİNTESTİNAL ACİLLER** Oturum Başkanları: **Adnan Yamanoğlu, Begüm Şeyda Avci** Akut mezenter iskemiye güncel yaklaşım, **Adem Melekoğlu** Üst GİS kanamalarına güncel yaklaşım, **Nahide Gizem Okay** Akut pankreatitte güncel yaklaşım, **Mustafa Ercan** Hepatik ensefalopatiye güncel yaklaşım, **Necati Akyılmaz**

11 Kasım 2022, Cuma		
1. Kurs Salonu	WORKSHOP: MEKANİK VENTİLASYON VE KAN GAZI YORUMLAMA Kurs Koordinatörü: Ramazan Köylü	
Eğitmenler: Ramazan Köylü, Burak Polat, Öznür Köylü		
09:00-09:30	Tanışma ve mekanik ventilasyona giriş	**Ramazan Köylü**
09:30-10:20	İnvaziv mekanik ventilasyon	**Ramazan Köylü**
10:20-10:30	**Kahve Arası**	
10:30-11:00	Non-invaziv mekanik ventilasyon	**Burak Polat**
11:00-11:30	Ventilatörden ayırma (weaning)	**Burak Polat**
11:45-12:30	**UYDU SEMPOZYUMU (A SALONU)**	
12:30-13:30	**Öğle Yemeği**	
13:30-14:10	Asit-baz dengesinde oksijen transport mekanizması	**Öznur Köylü**
14:10-14:40	Kan gazı analizi	**Ramazan Köylü**
14:40-15:10	Kan gazı pratik yorumlama	**Ramazan Köylü**
15:10-16:40	Mekanik ventilasyon pratik uygulama	**Ramazan Köylü, Burak Polat**

11 Kasım 2022, Cuma			
2. Kurs Salonu	İLERİ HAVA YOLU KURSU Kurs Koordinatörleri: Kemal Tolga Saraçoğlu, Ayten Saraçoğlu, Semih Korkut, Avni Uygar Seyhan, Ramazan Güven, Akkan Avci, Nihat Müjdat Hökenek		
Eğitmenler: Mehmet Kemal Emem, Mazlum Kılıç, Özge Kibici, Nurdan Yılmaz Şahin, Nahide Gizem Okay, Gürkan Akman			
09:00-09:10	Kurs Açılış-Bilgilendirme		**Kemal Tolga Saraçoğlu - Semih Korkut**
09:10-09:40	Zor Hava yolu yönetimi		**Ayten Saraçoğlu - Mehmet Kemal Emem**
09:40-09:50	Ara		
09:50-10:20	Üst Havayolunun Değerlendirilmesi ve Zor Havayolu Belirteçleri		**Ramazan Güven - Mazlum Kılıç**
10:20-10:30	**Kahve Arası**		
10:30-11:00	Apneik Oksijenasyon Yöntemleri		**Akkan Avcı - Gürkan Akman**
11:00-11:10	Ara		
11:10-11:45	Zor Havayolu Kılavuzları ve Olgularla Zor Havayolu Yönetimi		**Nihat Müjdat Hökenek - Özge Kibici**
11:45-12:30	**UYDU SEMPOZYUMU (A SALONU)**		
12:30-13:30	**Öğle Yemeği**		
PRATİK UYGULAMALAR			
13:30-17:00	İSTASYON 1	Zor Havayolu Smilasyonu ve Videolaringoskopi	**Semih Korkut - Gürkan Akman**
	İSTASYON 2	Buji, Değişim Kataterleri ve SALAD (Suction Asisted Airyaw Decontamination)	**Akkan Avcı - Mehmet Kemal Emem**
	İSTASYON 3	FOB (Fiberoptik Bronkoskopi) ve Supraglottik Havayolu Aracili Entübasyon	**Mazlum Kılıç - Nurdan Yılmaz Şahin**
	İSTASYON 4	Havayolu Ultrasonografisi ve Acil Ön Boyun Girişimler	**Nihat Müjdat Hökenek - Nahide Gizem Okay**
Kursun değerlendirimlesi ve Sertifika takdimi			

11 Kasım 2022, Cuma		
3. Kurs Salonu	TEMEL İSTATİSTİK ve İSTATİSTİK OKURYAZARLIĞI Kurs Koordinatörü: Ramazan Güven	
Eğitmenler: Ramazan Güven, Hüseyin Üvet, Deniz Özel		
1. OTURUM		
08:50-09:00	Kurs Açılış Programı Bilgilendirme	Ramazan Güven
09:00-09:45	Tanışma-Temel İstatistiksel Kavramlar	Deniz Özel
09:45-10:00	ARA	
10:00-10:45	Hangi istatistiksel yöntem ne zaman uygulanır?	Deniz Özel
10:45-11:00	ARA	
11:00-11:45	Güç Analizi ve Örneklem Sayısı Belirleme (GPower uygulamalı)	Deniz Özel
11:45-12:30	UYDU SEMPOZYUMU (A SALONU)	
12:30-13:30	Öğle Yemeği	
2. OTURUM		
13:30-14:15	Uygulama-Veri tabanı hazırlama ve veri girişi	Deniz Özel
14:15-15:00	ARA	
15:00-15:45	Uygulama-Veri kalitesi kontrolü ve veri hijyeni sağlama	Deniz Özel
15:45-16:00	ARA	
16:00-16:45	Uygulama-Veriyi analize hazırlama, veri dönüşümü ve tanımlayıcı istatistikleri hesaplama	Deniz Özel, Ramazan Güven
16:45-17:00	Program sonu ve değerlendirme	

	11 Kasım 2022, Cuma	
4. Kurs Salonu	EKOKARDİYOGRAFİ KURSU Kurs Koordinatörü: Adnan Yamanoğlu, Özlem Yıldırımtürk	
Eğitmenler: Adnan Yamanoğlu, Özlem Yıldırımtürk, Fahriye Vatansever Ağca, Burcu Genç Yavuz		
09:00-09:20	Ultrason fiziği, prob oryantasyonu ve artefaktlar	Adnan Yamanoğlu
09:20-09:25	Ara	
09:25-09:45	Ekokardiyografik pencereler ve akslar	Burcu Genç Yavuz
09:45-09:50	Ara	
09:50-10:10	Akut aortik sendromların görüntülenmesi	Burcu Genç Yavuz
10:10-10:30	Kahve Arası	
10:30-10:50	Sol ve sağ ventrikül sistolik fonksiyonların değerlendirilmesinde yöntemler (eyeballing, Simpson)	Özlem Yıldırımtürk
10:50-10:55	Ara	
10:55-11:15	Sol ventrikül diyastolik fonksiyonlarının değerlendirilmesi	Fahriye Vatansever Ağca
11:15-11:20	Ara	
11:20-11:40	Sol ventrikül duvar hareketlerinin değerlendirilmesi	Burcu Genç Yavuz
11:45-12:30	UYDU SEMPOZYUMU (A SALONU)	
12:30-13:30	Öğle Yemeği	
13:30-13:50	Akut Koroner Sendromlar ve Komplikasyonları	Adnan Yamanoğlu
13:50-13:55	Ara	
13:55-14:15	Akut pulmoner embolide TTE bulguları	Adnan Yamanoğlu
14:15-14:20	Ara	
14:20-17:20	USG Cihazı 1	Kardiyak Pencereler, EF Ölçme (eyeballing, Simpson), Aorta, IVC, Kalp boşluklarının ölçülmesi
	USG Cihazı 2	Kardiyak Pencereler, EF Ölçme (eyeballing, Simpson), Aorta, IVC, Kalp boşluklarının ölçülmesi
	USG Cihazı 3	Kardiyak Pencereler, EF Ölçme (eyeballing, Simpson), Aorta, IVC, Kalp boşluklarının ölçülmesi
	USG Cihazı 4	Kardiyak Pencereler, EF Ölçme (eyeballing, Simpson), Aorta, IVC, Kalp boşluklarının ölçülmesi

	12 Kasım 2022, Cumartesi	
1. Kurs Salonu	**TEMEL ULTRASON KURSU** **Kurs Koordinatörü: Adnan Yamanoğlu**	
Eğitmenler: Adnan Yamanoğlu, Serkan Doğan, Serkan Bilgin, Burcu Genç Yavuz, Halil Doğan		
09:00-09:20	Acil ve Kritik Hastada Ultrason Kullanımı ve Ultrson Fiziği	**Serkan Doğan**
09:20-09:25	**Ara**	
09:25-09:45	Travma Hastasında Ultrason- E-FAST	**Halil Doğan**
09:45-09:50	**Ara**	
09:50-10:10	Aorta ve İnferior Vena Kava Ultrasonografisi	**Adnan Yamanoğlu**
10:10-10:30	**Kahve Arası**	
10:30-10:50	Hepatobiliyer Sistem Ultrasonografisi	**Serkan Doğan**
10:50-10:55	**Ara**	
10:55-11:15	Girişimsel Ultrasonografi	**Serkan Bilgin**
11:15-11:20	**Ara**	
11:20-11:40	Üriner Sistem Ultrasonografisi	**Burcu Genç Yavuz**
11:45-12:30	**UYDU SEMPOZYUMU (A SALONU)**	
12:30-13:30	**Öğle Yemeği**	
13:30-13:50	Alt Ekstremite DVT Ultrasonografisi	**Adnan Yamanoğlu**
14:00-17:00	**USG Cihazı 1**	Travma Hastasında Serbest Sıvı Toplanma Alanları (Morison, Splenorenal Alan, Pelvik Alan, Plevral Alanlar, Perikardiyal Alan)
	USG Cihazı 2	Aorta ve vena cava ölçüm yöntemleri
	USG Cihazı 3	Hepatik Doku ve vasküler yapıları (Hepatik ven, Vena porta,Hepatik arter, Safra Kesesi) değerlendirme
	USG Cihazı 4	Girişimsel-Katater Yerleştirme ve periferik vasküler yol, Yabancı cisim- yapay maket eşliğinde
	USG Cihazı 5	Genitoüriner sistem organlarının belirlenmesi ve temel ölçümler
	USG Cihazı 6	Derin venlerin sonografik anatomisinin sonografik değerlendirilmesi

	12 Kasım 2022, Cumartesi	
2. Kurs Salonu	**İNVAZİV İŞLEMLER KURSU** **Kurs Koordinatörleri: Ahmet Sebe, Akkan Avci**	
Eğitmenler: Ahmet Sebe, Akkan Avci, Önder Yeşiloğlu, Gökhan Eyüpoğlu, Mazlum Kılıç, İbrahim Halil Toksul, Mehmet Tatlı		
09:00-09:10	Kurs Açılış-Bilgilendirme	
09:10-09:40	Hava yolu yönetimi	**Ahmet Sebe**
09:40-09:50	**Ara**	
09:50-10:20	Krikotiroidotomi-Trakeostomi Uygulamaları	**Gökhan Eyüpoğlu,** **Halil İbrahim Toksul**
10:20-10:30	**Kahve Arası**	
10:30-11:00	Tüp Torakostomi	**Önder Yeşiloğlu, Akkan Avci**
11:00-11:10	**Ara**	
11:10-11:40	Lomber Ponksiyon	**Mazlum Kılıç, Mehmet Tatlı**
11:45-12:30	**UYDU SEMPOZYUMU (A SALONU)**	
12:30-13:30	**Öğle Yemeği**	
Pratik Uygulamalar		
13:30-17:00	**İSTASYON 1**	Havayolu İstasyonu
	İSTASYON 2	Krikotiroidotomi-Trakeostomi İstasyonu
	İSTASYON 3	Tüp Torakostomi İstasyonu
	İSTASYON 4	Lomber Ponksiyon İstasyonu
17:00	Kursun değerlendirilmesi ve sertifika takdimi	

	12 Kasım 2022, Cumartesi	
3. Kurs Salonu	EKG VE RİTİM ANALİZ KURSU Kurs Koordinatörü: Oğuzhan Bol	
Eğitmenler: Serhat Koyuncu, Oğuzhan Bol, Taner Şahin, Mehmet Biçer, İbrahim Akdoğan		
09:00-09:45	Kardiyak Anatomi ve Temel Elektrofizyoloji	Oğuzhan Bol
09:45-10:20	Temel EKG'nin Değerlendirilmesi	İbrahim Akdoğan
10:20-10:30	Kahve Arası	
10:30-11:45	PRATİK	
11:45-12:30	UYDU SEMPOZYUMU (A SALONU)	
12:30-13:30	Öğle Yemeği	
13:30-14:15	Aritmiler	Taner Şahin
14:15-14:55	PRATİK	
14:55-15:40	Atriyoventriküler ve İntraventriküler Bloklar	Mehmet Biçer
15:40-16:20	PRATİK	
16:20-17:05	Akut Koroner Sendromda EKG	Serhat Koyuncu
17:05-17:45	PRATİK	
17:45-18:30	EKG'de Zor Tanılar	İbrahim Akdoğan
18:30-19:00	PRATİK	

	12 Kasım 2022, Cumartesi	
4. Kurs Salonu	PROJE YAZMA (TÜBİTAK TEYDEP & ARDEP) Kurs Koordinatörü: Ramazan Güven	
Eğitmenler: Ramazan Güven, Hüseyin Üvet, Deniz Özel		
1. OTURUM		
08:50-10:00	TÜBİTAK 1001-1002-1003-1005 finansman fırsatlarının ve programlarının örnekleriyle sunumu ve hazırlık aşamasında seçilen programlara odaklanma	Hüseyin Üvet
10:00-10:15	ARA	
10:15-11:15	TÜBİTAK proje tasarımı: sorunların ve hedeflerin geliştirilmesi	Hüseyin Üvet
11:15-11:30	ARA	
11:45-12:30	UYDU SEMPOZYUMU (A SALONU)	
12:30-13:30	Öğle Yemeği	
2. OTURUM		
13:30-14:30	Uygulamalı Çalışma: Proje Amaç-Hedef Yazımı	Hüseyin Üvet
14:30-14:45	ARA	
14:45:15:45	Uygulamalı Çalışma: TÜBİTAK projelerinde proje özgünlüğünün geliştirilmesi	Hüseyin Üvet
15:45-16:00	ARA	
16:00-17:00	Uygulamalı Çalışma: Projenin başarı ölçütlerinin incelenmesi ve belirlenmesi.	Hüseyin Üvet
17:00-17:15	ARA	
17:15-18:15	Uygulamalı Çalışma: Proje risklerinin planlanması	Hüseyin Üvet
Program Sonu ve Açık Tartışma		

10 KASIM 2022, PERŞEMBE	
	1. KURS SALONU
14:00-14:45	**SÖZLÜ BİLDİRİ OTURUMU-1** **Oturum Başkanları: Abuzer Coşkun, Mustafa Çalık** S-001, 6939 / S-002, 7092 / S-003, 1536 / S-004, 5418 / S-005, 9785 / S-006, 1792, S-007, 6725 / S-008, 9351 / S-009, 3077
	2. KURS SALONU
14:00-14:45	**SÖZLÜ BİLDİRİ OTURUMU- 7** **OTURUM BAŞKANLARI: Semih Korkut- Ramazan Güven** S-093, 3097 / S-094, 3292 / S-095, 1920 / S-096, 2771 / S-097, 3504 / S-098, 4514, S-099, 7742 / S-100, 9758 / S-101, 4231 / S-102, 1957
14:45-15:00	**KAHVE ARASI**
	1. KURS SALONU
15:00-16:15	**SÖZLÜ BİLDİRİ OTURUMU- 2** **Oturum Başkanları: Ertuğrul Altınbilek - Hüseyin Ergenç** S-010, 1247 / S-011, 1149 / S-012, 5029 / S-013, 5869 / S-014, 4091 / S-015, 1548, S-016, 4468 / S-017, 9097 / S-018, 2093 / S-019, 7595 / S-020, 3805 / S-021, 9418, S-022, 4966 / S-023,4833 / S-024, 4877 / S-025, 6928
	2. KURS SALONU
15:00-16:15	**SÖZLÜ BİLDİRİ OTURUMU- 8** **OTURUM BAŞKANLARI: Mehmet Tahir Gökdemir - Adem Az** S-103, 7090 / S-104, 7679 / S-105, 6030 / S-106, 1470 / S-107, 1269 / S-108, 9325, S-109, 6402 / S-110, 9277 / S-111, 2749 / S-112, 6667 / S-113, 1558 / S-114, 9330 S-115, 3235 / S-116, 2282 / S-117, 5803 / S-118, 8967 / S-119, 1373 / S-120, 6200 , S-121, 7693
	1. KURS SALONU
16:15-17:30	**Sözlü Bildiri Oturumu- 3** **Oturum Başkanları: Sinan Karacabey- Fatih Selvi** S-026, 4204 / S-027, 8454 / S-028, 5677 / S-029, 3539 / S-030, 8322 / S-031, 2192, S-032, 1795 / S-033, 8477 / S-034, 1822 / S-035, 5995 / S-036, 1476 / S-037, 8715 S-038, 4973 / S-039, 5017 / S-040, 5508 / S-041, 8616
	2. KURS SALONU
16:15-17:30	**SÖZLÜ BİLDİRİ OTURUMU- 9** **OTURUM BAŞKANLARI: Songül Araç- Tuba Betül Ümit** S-122, 8946 / S-123, 7188 / S-124, 5455 / S-125, 1897 / S-126, 3169 / S-127, 5366, S-128, 6556 / S-129, 2131 / S-130, 7513 / S-131, 5048 / S-132, 7431 / S-133, 7208 S-134, 2932 / S-135, 7964 / S-136, 7131 / S-137, 2315

11 KASIM 2022, CUMA	
	ORKİDE HALL
18:00-19:00	**SÖZLÜ BİLDİRİ OTURUMU -4** **OTURUM BAŞKANLARI: Mehtap Bulut- Melih Yüksel** S-042, 7437 / S-043, 1479 / S-044, 1586 / S-045, 2799 / S-046, 2714 / S-047, 1305, S-048, 7024 / S-049, 5962 / S-050, 9102 / S-051, 6626 / S-052, 8117 / S-053, 5262, S-054, 7284
	KARDELEN HALL
16:30-18:00	**SÖZLÜ BİLDİRİ OTURUMU- 6** **OTURUM BAŞKANLARI: Serkan Doğan- Abdullah Algın** S-074, 8422 / S-075, 9742 / S-076, 2928 / S-077, 4389 / S-078, 1665 / S-079, 2288, S-080, 1911 / S-081, 8113 / S-082, 7902 / S-083, 8011 / S-084, 2362 / S-085, 4227 S-086, 3571 / S-087, 7750 / S-088, 6567 / S-089, 7006 / S-090, 1215 / S-091, 1940, S-092, 5828
	MENEKŞE HALL
16:30-18:00	**SÖZLÜ BİLDİRİ OTURUMU- 5** **OTURUM BAŞKANLARI: Utku Kalafat- Onur Kaplan** S-055, 8646 / S-056, 5589 / S-057, 3484 / S-058, 6106 / S-059, 5004 / S-060, 6350, S-061, 5774 / S-062, 1886 / S-063, 7066 / S-064, 9346 / S-065, 4511 / S-066, 5416 S-067, 1119 / S-068, 2979 / S-069, 1472 / S-070, 1473 / S-071, 2402 / S-072, 5253, S-073, 3173

12.11.2022, CUMARTESİ	
	1. KURS SALONU
16:50-18:20	**SÖZLÜ BİLDİRİ OTURUMU- 10** **OTURUM BAŞKANLARI: Özgür Söğüt- Sümeyye Çakmak** S-138, 1735 / S-139, 7780 / S-140, 2619 / S-141, 3537 / S-142, 9867 / S-143, 1661 , S-144, 6153 / S-145, 5535 / S-146, 1684 / S-147, 7494 / S-148, 9380 / S-149, 3732 S-150, 4139 / S-151, 7837 / S-152, 4258 / S-153, 6475 / S-154, 7681 / S-155, 7718 , S-156, 8965
	2. KURS SALONU
17:00-18:30	**SÖZLÜ BİLDİRİ OTURUMU- 11** **OTURUM BAŞKANLARI: Akkan Avcı- Abuzer Çoşkun** S-157, 7254 / S-158, 6403 / S-159, 8364 / S-160, 5343 / S-161, 1553 / S-162, 7358 , S-163, 4063 / S-164, 8071 / S-165, 1648 / S-166, 8479 / S-167, 2133 / S-168, 5848 S-169, 1643 / S-170, 9998 / S-171, 8682 / S-172, 6665 / S-173, 3126 / S-174, 6662 , S-175, 2942
	3. KURS SALONU
17:00-18:30	**SÖZLÜ BİLDİRİ OTURUMU- 12** **OTURUM BAŞKANLARI: Burcu Gençyavuz- Nihat Hökenek** S-176, 7140 / S-177, 9356 / S-178, 9289 / S-179, 7285 / S-180, 6275 / S-181, 5193 , S-182, 4208 / S-183, 6595 / S-184, 8776 / S-185, 8590 / S-186, 8650 / S-187, 8453 S-188, 3800 / S-189, 7707 / S-190, 6109 / S-191, 1292 / S-192, 8546 / S-193, 1714 , S-194, 2386
	4. KURS SALONU
17:20-18:30	**COURSE 4 HALL** **SÖZLÜ BİLDİRİ OTURUMU- 13** **OTURUM BAŞKANLARI: Özgür Söğüt- Adem Az** S-195, 2323 / S-196, 3338 / S-197, 5874 / S-198, 8665 / S-199, 8938 / S-200, 2651 , S-201, 7134 / S-202, 8653 / S-203, 3261 / S-204, 2944 / S-205, 1346 / S-206, 4306 S-207, 9229 / S-208, 6531 / S-209, 6482

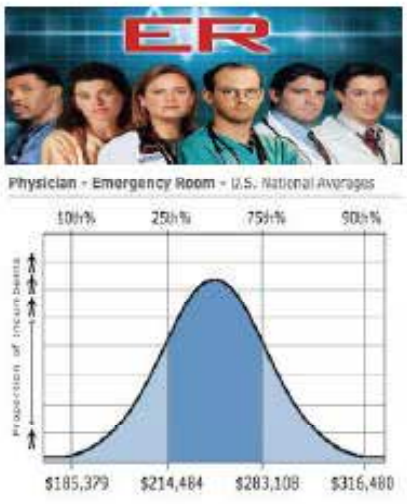
12.11.2022, CUMARTESİ	
	1. KURS SALONU
17:00-18:00	**SÖZLÜ BİLDİRİ OTURUMU- 14** **OTURUM BAŞKANLARI: Ahmet Mustafa Afacan - İsmail Tayfur** S-210, 8601/ S-211, 8915 / S-212, 8932 / S-213, 1612 / S-214, 2478 / S-215, 5952 , S-216, 6420 / S-217, 2268 / S-218, 1105 / S-219, 1860 / S-220, 3029 / S-221, 2001

KONUŞMA ÖZETLERİ

EM PHYSICIAN'S PERFORMANCE

Dr Shabbir Ahmad MBBS BA MRCSEd FRCEM MBAIHM

Senior Consultant EM Hamad Medical Corporation Qatar
Assistant Professor EM Qatar University Medical School



Evidence-based education

PRIVATE SECTOR HEALTHCARE

- $@Basic PayScale
- $@Number of patients encounte
- $@Number of procedures
- $@Number of medical reports completed
- $@Advisory, committee work
- $@differential rate for acuity of patients
- $@differential rate for sub-specialty work

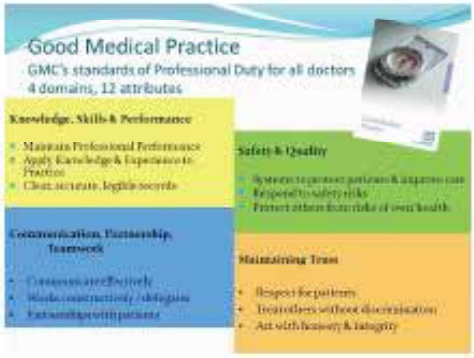
- ED LOS
- Investigations
- Procedures
- Admission rate
- Number of hours worked in ED
- Subgrouping: Clinical, Operations, Academics

PUBLIC SECTOR & NOT FOR PROFIT NGO HOSPITALS

- Flat rate of pay
- Public funded
- Hybrid jobs: Clinician+
- EHR are not customized for tariffs and transactions
- There is usually no differential/additional pay for committee , academic or sub-specialty work
- Patient streams follows patients demands

- cost-effectiveness
- Efficiency
- LOS
- Admission rate
- Multi-tasking
-Number of hours worked

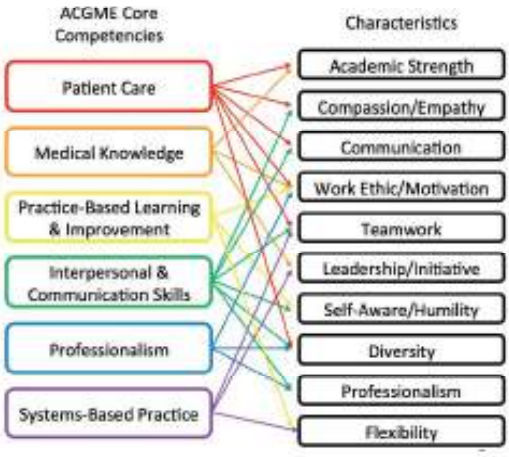
REGULATORS



WHAT DOES THAT MEAN

- Annual appraisal by employer and report submission to regulator
- Evidence for satisfactory performance in all four domains
- CPD and performance reports
- QIP/Audit/Service improvement project
- Patient feedback
- Colleagues feedback
- Complaints
- Probity and health statement

REGULATORS



WHAT DOES THIS MEAN

License to Practice

- CPD
- Recommendation from employer
- Health status
- Disclosure

Employer's Annual appraisal (Structured Form)

- CPD
- Clinical and behavioural domains
- OPPE

Section 1	1. Details of appraisee and appraiser 2. Performance rating key
Section 2	Mandatory requirement 1. Completed job plan 2. Evidence of 40 CPD points in appraisal year 3. Completion of mandatory courses 4. Licensed to practice
Section 3	Code of Leadership Behaviour competence. Appraisee's narrative with examples in each area. 1. Patient first 2. Taking responsibility 3. Advance and inspire 4. Integrate and shape
Section 4	Compliments and issues 1. Compliments from patients 2. Compliments from colleagues 3. Adverse incidence reports 4. Compliments from patients 5. Compliments from colleagues and clinical operation team
Section 5	Feedback summary 1. Self-reported 2. Based on section 2-4 and
Section 6	Ongoing Professional Performance Evaluation (OPPE) 1. Signed code of conduct (benchmark: Yes) 2. Complaints (benchmark: 0) 3. Compliments (benchmark: informal) 4. Disciplinary measures (benchmark: 0) 5. Annual number of CPD (benchmark: 40) 6. Regular attendance at mortality and morbidity/Grand round (benchmark: 80%) 7. Number of prescription errors that resulted in adverse incident report, (Benchmark: 0) 8. Number of Ct scans ordered by the physician in a year – No benchmark 9. Number of patients seen by clinician during the year, (Benchmark: 6%) 10. Total number of patients discharged during the year, (Benchmark: 5%) 11. Total number of patients returned within 48 hours during the year (no benchmark)
Section 7	Personal Developmental Plan (PDP)
Section 8	Overall assessment score 1: Does not meet expectation 2: Close to meeting expectation 3: Meets expectation 4: Exceeds expectation 5: Excellent

CENSUS

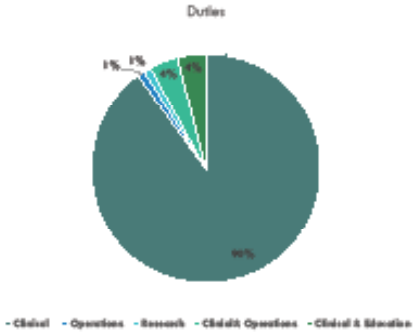
- Number of patients seen
- LOS
- Number of CT scan ordered
- Unscheduled returns
- Complaints
- Mortality
- Morbidity
- Missed diagnosis
- Clinical incidents
- Documentation review
- Logbook

- Opportunities
- Roster
- Robustness of reporting system and complaints process
- Culture of maintaining logbook by senior clinicians

? Department capture this information

- Feedback culture

ALL EPS ARE NOT THE SAME



- Appraisal for operational work
- Appraisal for Research work
- Appraisal for medical education work

- Clinical KPIs: Yes
- Academics KPIs: Not usually used in healthcare
- Operations/management KPIs: Not commonly used in healthcare

UK APPRAISAL

What do doctors really think about the relevance and impact of GP appraisal 3 years on?
A survey of Scottish GPs

47% : Appraisal had altered their educational activity

33% : Undertaking further education or training

13%: Appraisal had influenced their career development.

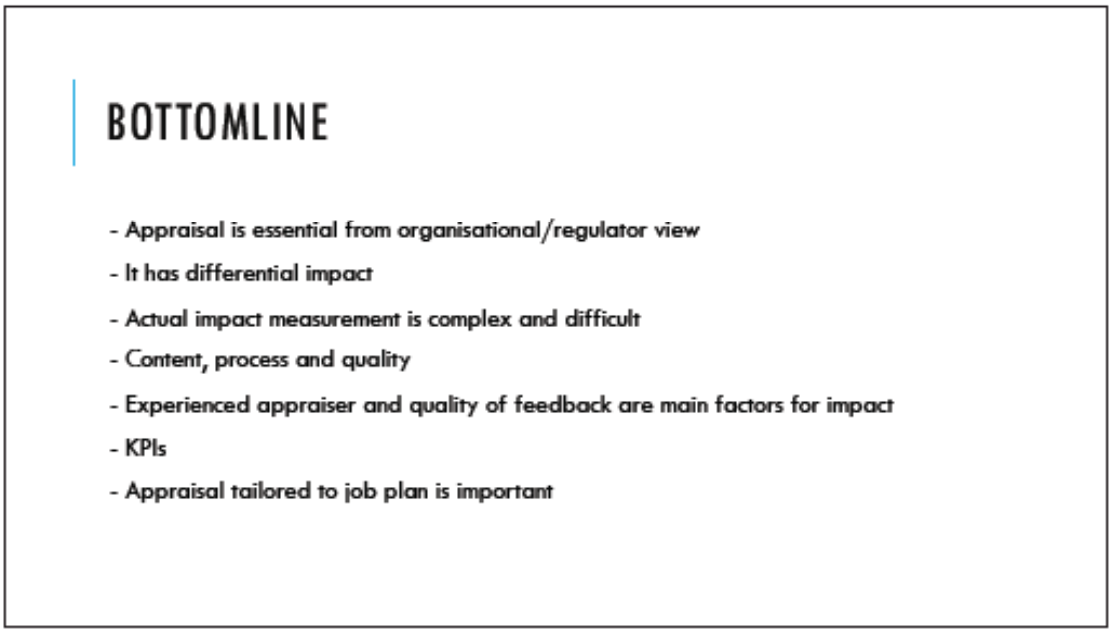
Opinion was evenly split on the overall value of appraisal.

RESEARCH ARTICLE

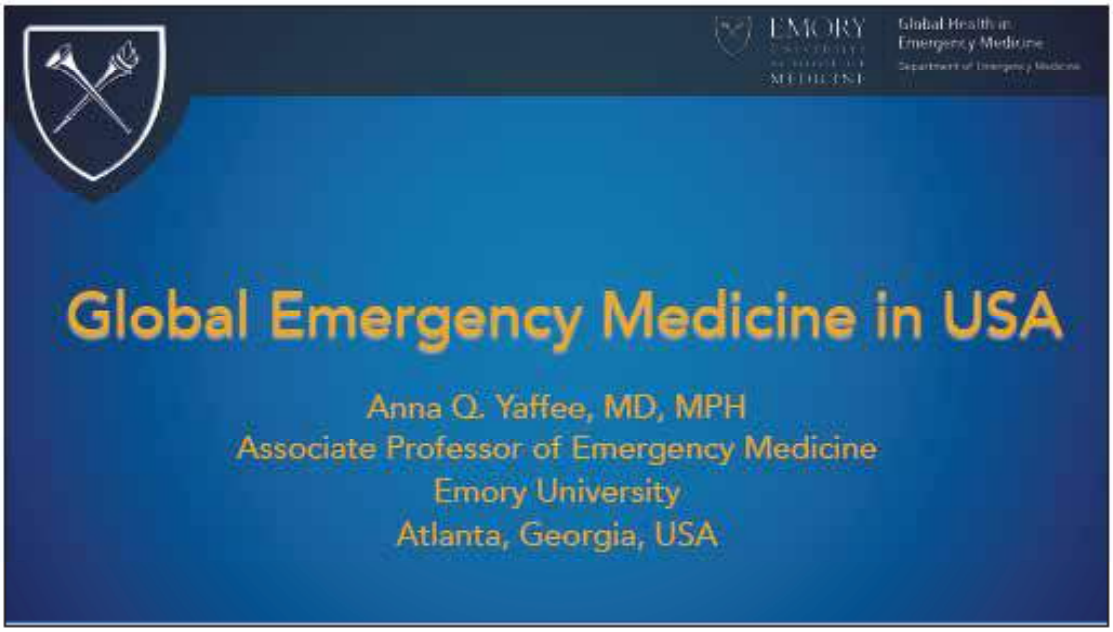
The implementation of medical revalidation: an assessment using normalisation process theory

- The acceptability of appraisal improved with time
- Appraiser and managers perceived appraisal to be more impactful
- Variable experience by appraisees
- Quality of feedback and experienced appraiser is key

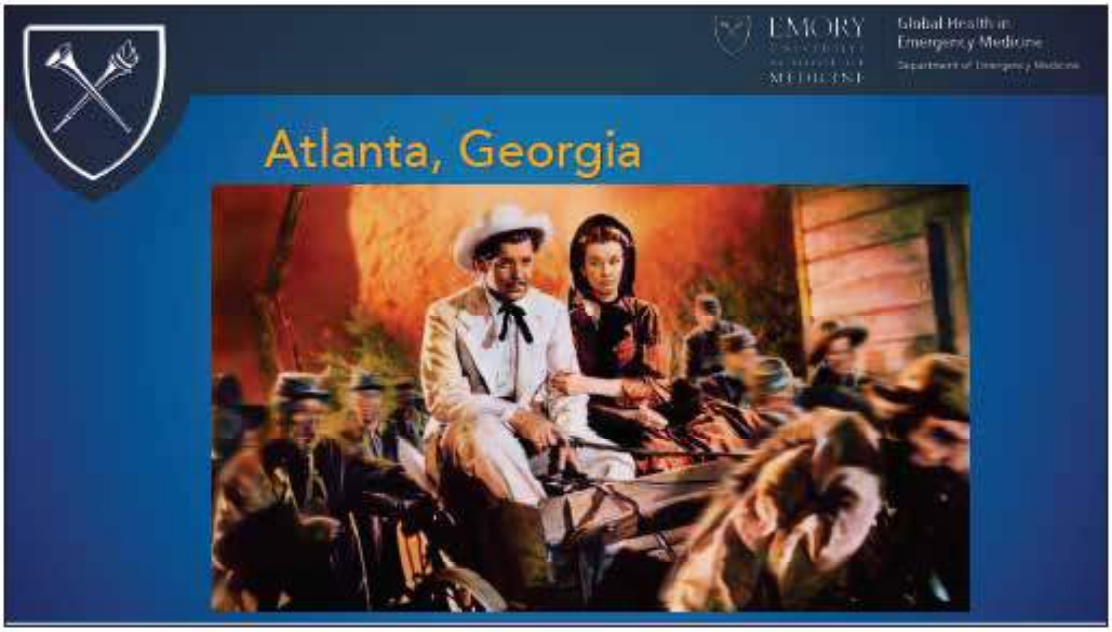
APPRAISAL AND REVALIDATION FOR UK DOCTORS
We don't need bad doctors, but we don't need bad appraisals and revalidations either
Terry Kemple retired general practitioner
SYSTEMATIC REVIEW
Clinical Performance Feedback Intervention Theory (CP-FIT): a new theory for designing, implementing, and evaluating feedback in health care based on a systematic review and meta-synthesis of qualitative research
Towards an understanding of how appraisal of doctors produces its effects: a realist review
Brennan, N
The Effect of Employees' Perception of Performance Appraisal on Their Work Outcomes
- Improves performance
- Increased turnover intention
- Appraisal process is superficial
- Depends on the skill of appraiser
- Positive impact when appraiser is participative, positive and supportive and focused on future
- Badly conducted appraisal depress performance.


BOTTOMLINE
- Appraisal is essential from organisational/regulator view
- It has differential impact
- Actual impact measurement is complex and difficult
- Content, process and quality
- Experienced appraiser and quality of feedback are main factors for impact
- KPIs
- Appraisal tailored to job plan is important

Thank
You


EMORY
MEDICINE
Global Health in Emergency Medicine
Department of Emergency Medicine
Global Emergency Medicine in USA
Anna Q. Yaffee, MD, MPH
Associate Professor of Emergency Medicine
Emory University
Atlanta, Georgia, USA

WASHINGTON
OREGON
CALIFORNIA
IDAHO
NEVADA
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
SOUTH CAROLINA
NORTH CAROLINA
VIRGINIA
WEST VIRGINIA
PENNSYLVANIA
NEW YORK
MAINE
VT
NH
MASS
CONN
RI
NEW JERSEY
DELAWARE
MARYLAND
ALASKA
HAWAII
CONN: CONNECTICUT
MASS: MASSACHUSETTS
NH: NEW HAMPSHIRE
RI: RHODE ISLAND
VT: VERMONT


EMORY
MEDICINE
Global Health in Emergency Medicine
Department of Emergency Medicine
Atlanta, Georgia

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION
Coca-Cola
Atlanta 1996

EMORY
MEDICINE
Global Health in Emergency Medicine
What is Global EM in USA?
• Liaising with colleagues all over the world to impact
• Emergency Medicine Systems/Specialty Development
• Provision of acute care (local/global)
• Provision of service in disaster/humanitarian response
• Research capacity building
• Why?
• Importance of bilateral partnership, fellowship, shared experience

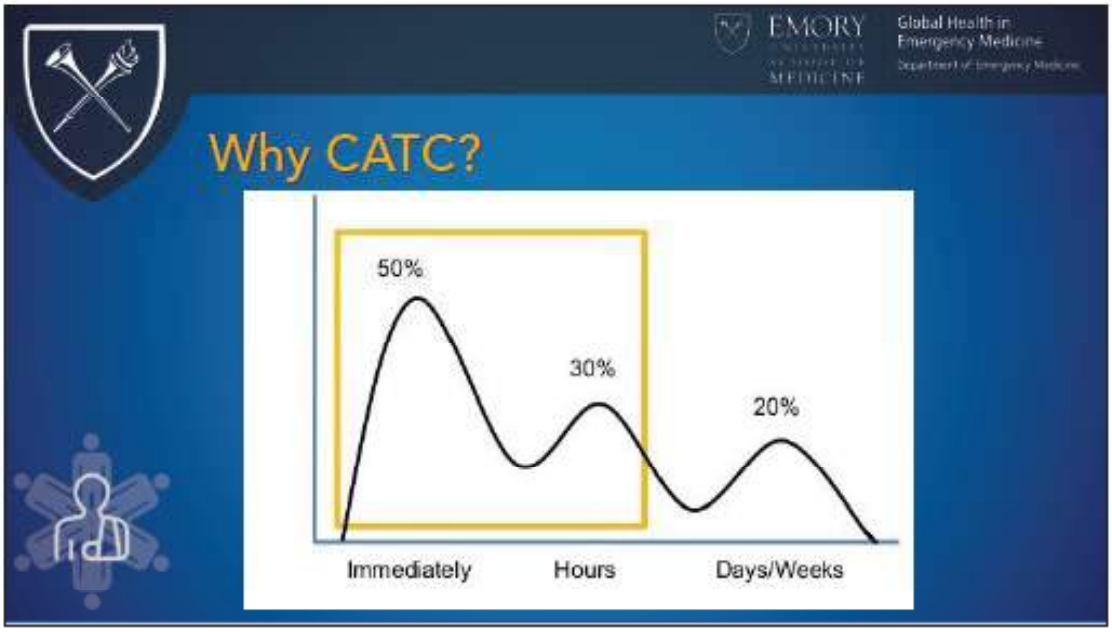
EMORY
MEDICINE
Global Health in Emergency Medicine
Department of Emergency Medicine
Global Health in EM at Emory
• Our Mission is to build emergency medicine capacity and preparedness around the world through the development of sustainable, bilateral educational partnerships that provide and promote the training of health care providers in emergency medicine.
• Expertise in Public Health Preparedness, Prehospital & Disaster Medicine, Observation Medicine including Telemedicine, Toxicology, and Ultrasound

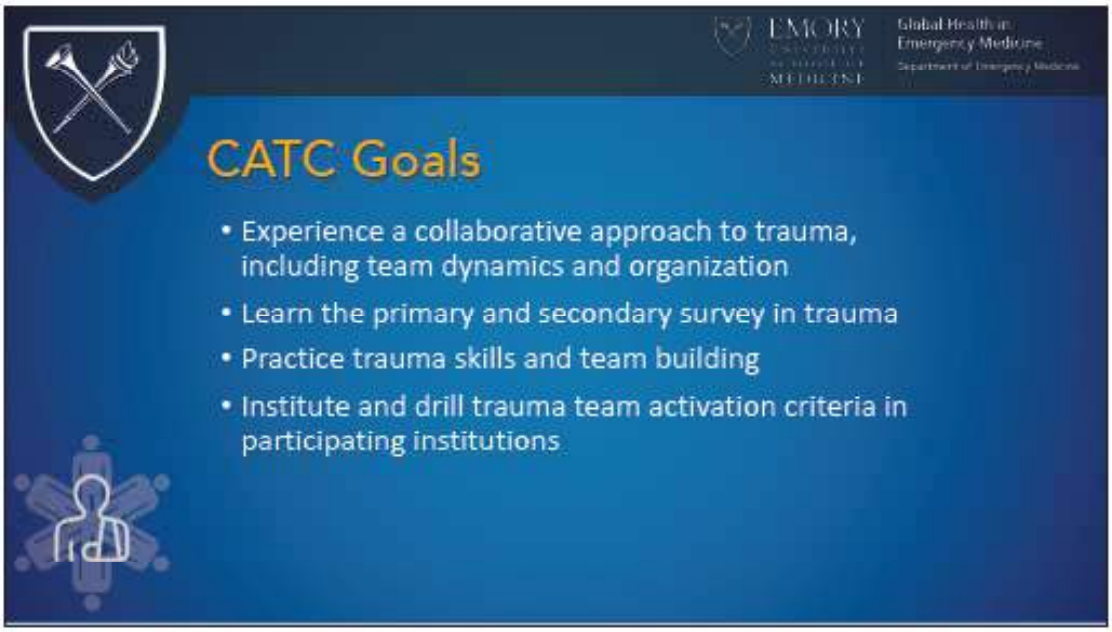
EMORY
MEDICINE
Global Health in Emergency Medicine
Emory EM's International Partners
• Addis Ababa University, Addis Ababa, Ethiopia
• American University of Beirut Department of Emergency Medicine
• Indus Health Network, Karachi, Pakistan
• MENATOX
• PLeDGE Health, Mozambique
• Medecins Sans Frontieres Japan (MSF)

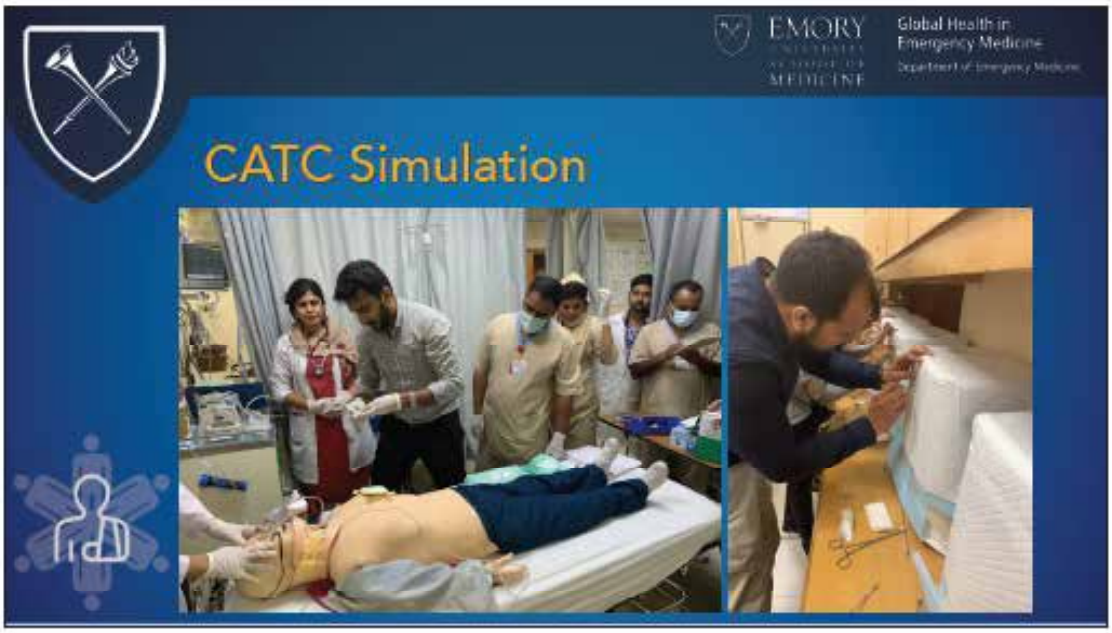
EMORY
MEDICINE
Global Health in Emergency Medicine
Department of Emergency Medicine
Global Initiatives at Emory
• Prehospital Care Development in Vietnam and Singapore
• World Health Organization Basic Emergency Care Trainers
• Specialty Capacity Building in Liberia, Eswatini, Republic of Georgia
• Long-standing residency education relationship and professional development mentorship/support with Addis Ababa University, Ethiopia
• Emergency Ultrasound longitudinal training in Mozambique
• Emergency Medicine residency development in Mozambique
• Development of international administrative observership at Emory
• Collaborative Advanced Trauma Care (CATC)

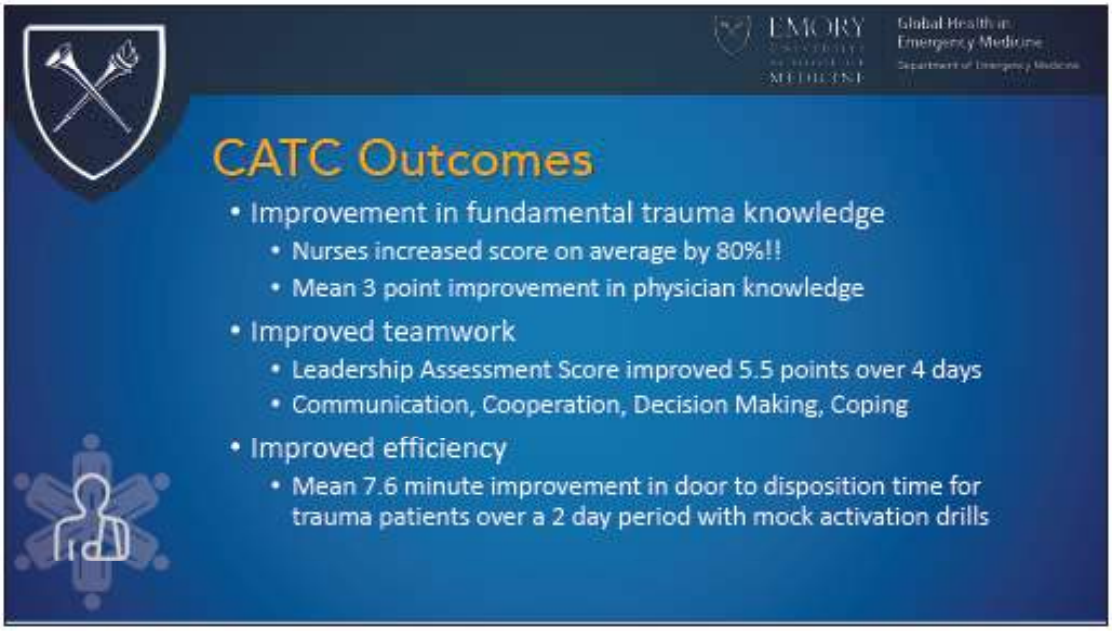
EMORY
MEDICINE
Global Health in Emergency Medicine
Department of Emergency Medicine
Addis Ababa University Partnership
• Emory EM and TASH/AAU have been collaborating since 2013
• Toxicology, Ultrasound, Trauma, Nursing
• Hybrid virtual/in person didactics maintains longitudinal relationship
• Shared grant applications
• Mentorship, research, and professional development support
• Bilateral (+)

EMORY
MEDICINE
Global Health in Emergency Medicine
Collaborative Advanced Trauma Care (CATC)
• Collaborative, multidisciplinary trauma training program
• Emergency Department Nurses
• Emergency Department Physicians
• General/trauma surgeons
• Anesthesia
• Orthopedics
• Didactic trainings taught by experts in the fields
• Hands on simulation as teams
• Implementation in participating institution
• Evaluation on teamwork, leadership, and knowledge

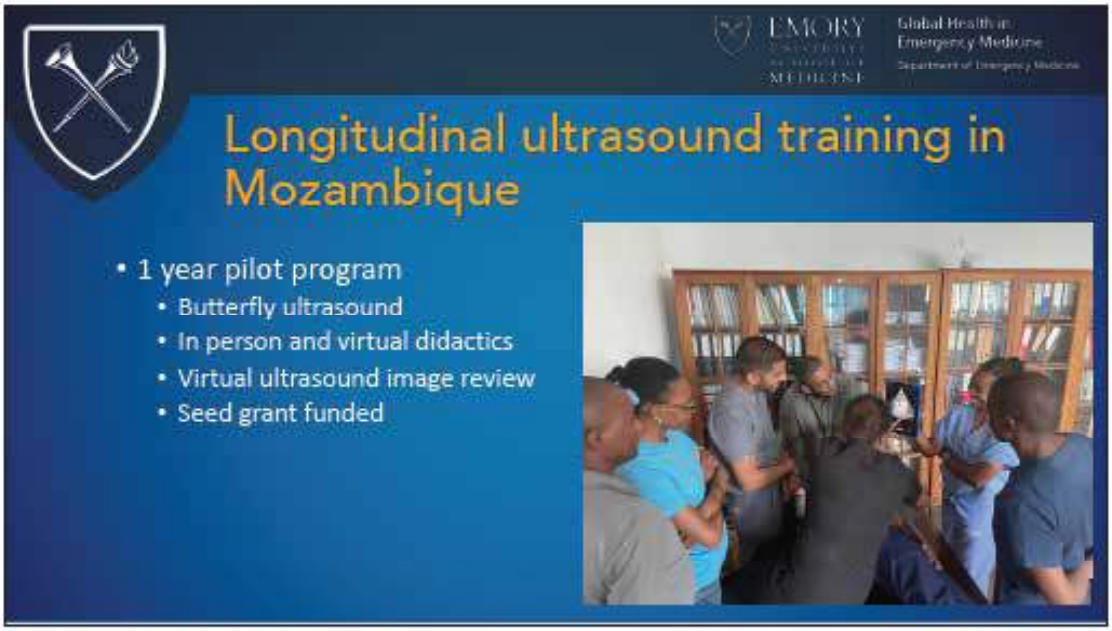

EMORY
MEDICINE
Global Health in Emergency Medicine
Why CATC?
50%
30%
20%
Immediately
Hours
Days/Weeks


EMORY
MEDICINE
Global Health in Emergency Medicine
CATC Goals
• Experience a collaborative approach to trauma, including team dynamics and organization
• Learn the primary and secondary survey in trauma
• Practice trauma skills and team building
• Institute and drill trauma team activation criteria in participating institutions


EMORY
MEDICINE
Global Health in Emergency Medicine
CATC Simulation

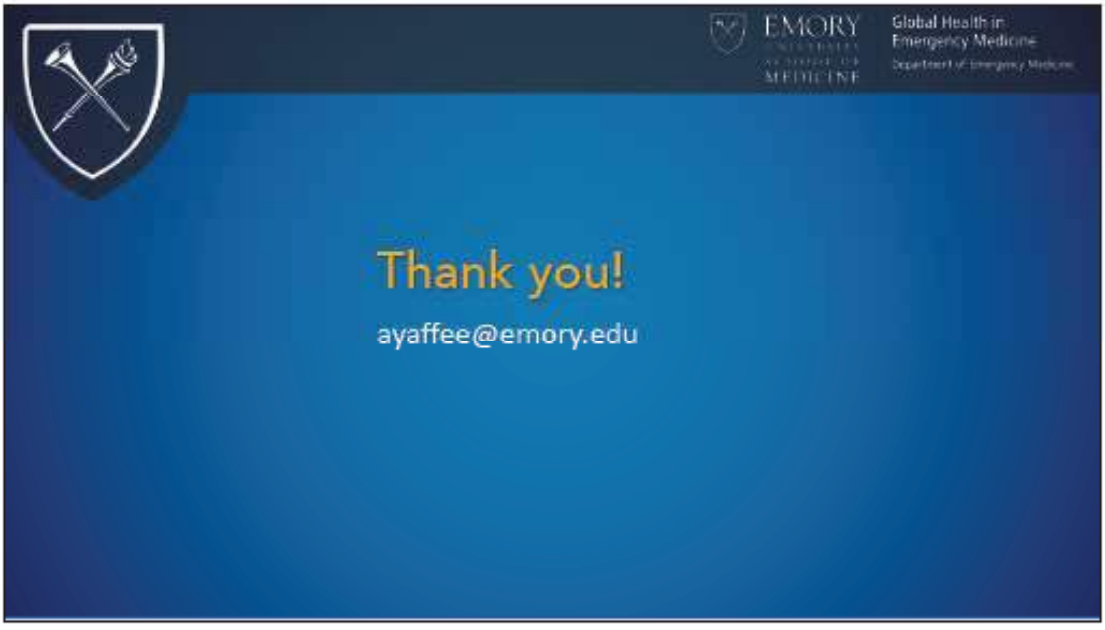

EMORY
MEDICINE
Global Health in Emergency Medicine
CATC Outcomes
• Improvement in fundamental trauma knowledge
• Nurses increased score on average by 80%!!
• Mean 3 point improvement in physician knowledge
• Improved teamwork
• Leadership Assessment Score improved 5.5 points over 4 days
• Communication, Cooperation, Decision Making, Coping
• Improved efficiency
• Mean 7.6 minute improvement in door to disposition time for trauma patients over a 2 day period with mock activation drills

EMORY
MEDICINE
Global Health in Emergency Medicine
CATC Next Steps
• Now expanded to 5 sites in Pakistan, 1 in Ethiopia, and 2 in Vietnam
• Over 270 participants trained
• Expansion further in all sites in coming 2 years
• Train the trainer model
• Hybrid virtual/in person course
• Longitudinal outcomes assessment

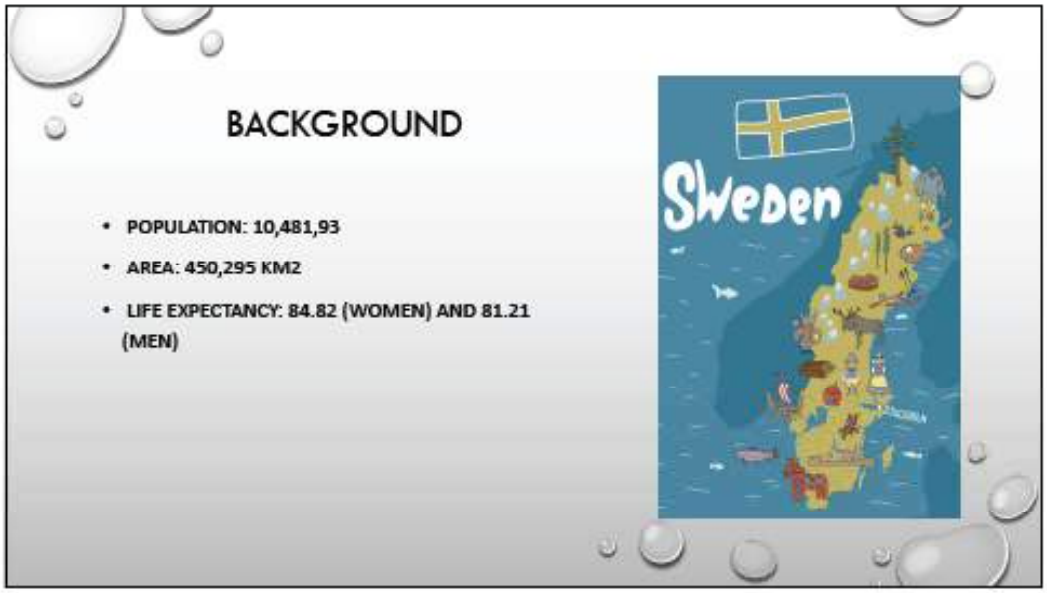

EMORY
MEDICINE
Global Health in Emergency Medicine
Longitudinal ultrasound training in Mozambique
• 1 year pilot program
• Butterfly ultrasound
• In person and virtual didactics
• Virtual ultrasound image review
• Seed grant funded

EMORY
MEDICINE
Global Health in Emergency Medicine
Overarching Challenges and Solutions in Global EM
• Honing focus
• Select a champion/committee
• Cost of resources and education
• Many resources are inexpensive, grants and donation are possible
• Free educational resources
• Collaborate on educational ventures
• Obtaining Institutional, Regional, and/or National buy in
• Work with institutional leadership to champion
• Establish or work with EM/Surgical professional society to champion at Ministry of Health/national level
• Collaborate with international colleagues

EMORY
MEDICINE
Global Health in Emergency Medicine
Bilateral (+) Partnership is Imperative
• Relationship building through shared experience, equity, communication
• Exchange of faculty at Addis Ababa University
• Collaborative Advanced Trauma Care Training of Trainers – international faculty
• Medical Toxicology graduates as leaders around the world
• Authorship and research


EMORY
MEDICINE
Global Health in Emergency Medicine
Thank you!
ayaffee@emory.edu

EMERGENCY MEDICINE IN SWEDEN
DR. ÖNCÜ SANCAK
HELSINGBORG HOSPITAL
EMERGENCY DEPARTMENT


BACKGROUND
• POPULATION: 10,481,93
• AREA: 450,295 KM2
• LIFE EXPECTANCY: 84.82 (WOMEN) AND 81.21 (MEN)
Sweden

HEALTH SYSTEM

- 90 PUBLIC HOSPITALS AND 950 REGIONAL PRIMARY CARE CLINICS
- EMERGENCY CARE
- URGENT AND PRIMARY CARE
- NATIONAL INSURANCE PROGRAM
- ONE DOCTOR FOR EVERY 300 CITIZENS
- 63 DİFFERENT MEDİCAL SPECİALTİES
- LOW LEVEL OF HOSPITAL BEDS SINCE 1990

EMERGENCY MEDICAL SERVICES

- 2.6 MILLION VISITS ANNUALLY
- AMBULANCE SYSTEM SINCE 1983
- 112
- 1177

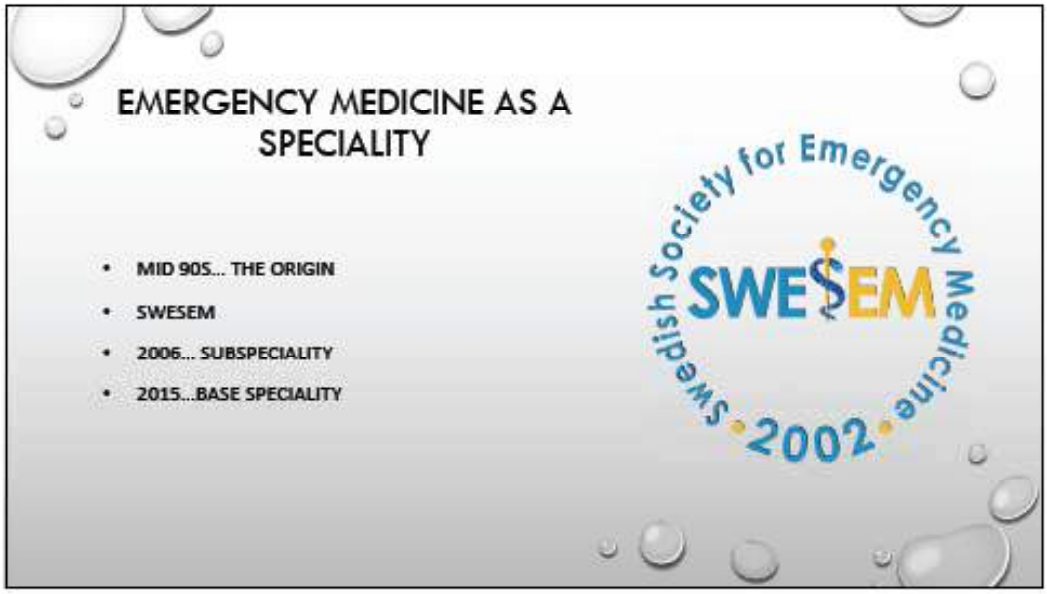
EMERGENCY DEPARTMENT FEATURES

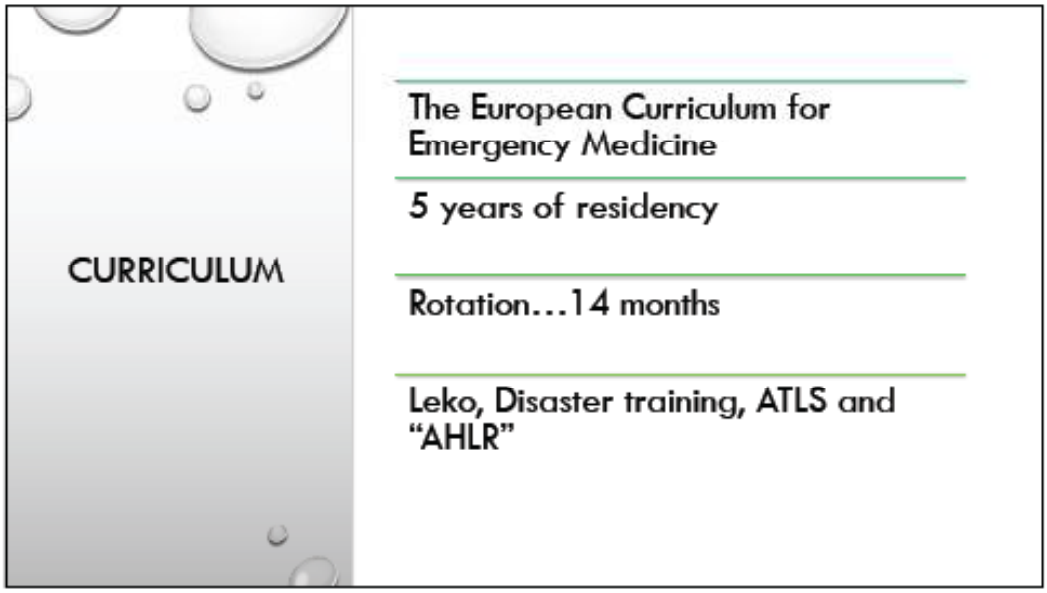
Organization:

- Triage according to both the nature of their complaint and the acuity of their illness
- RETTS (prioritize between red to blue or 1 to 5)
- Urgent complaints are triaged to the Urgent Care area

Staffing

- Interns, residents and specialists
- For trauma or critical "alarm" cases...alert system
- ED shifts vary from eight(day and evening) to eleven hours(night)
- Not more than 40 hours per week


EMERGENCY MEDICINE AS A SPECIALITY
MID 90S... THE ORIGIN
SWESEM
2006... SUBSPECIALITY
2015...BASE SPECIALITY
Swedish Society for Emergency Medicine
SWESEM
2002


CURRICULUM
The European Curriculum for Emergency Medicine
5 years of residency
Rotation...14 months
Leko, Disaster training, ATLS and "AHLR"

ON THE FIELD

- LOCAL GUIDELINES
- TIME FOR ADMINISTRATION AND SELF STUDIES
- FIKA!!
- OVERLAP BETWEEN SHIFTS
- PATIENT REGISTIRATION BY PHYSICIANS

COVID IN SWEDEN

- PANDEMIC PLAN, ORIGINALLY DEVELOPED FOR INFLUENZA
- TO ACHIEVE SOCIAL DISTANCING THROUGH PUBLIC HEALTH RECOMMENDATIONS
- TO WORK FROM HOME AND LIMIT TRAVEL WITHIN THE COUNTRY
- PEOPLE AGED 70 OR OLDER WERE ASKED TO LIMIT SOCIAL CONTACT
- PEOPLE WITH COVID SYMPTOMS WERE ASKED TO SELF-ISOLATE
- PUBLIC EVENTS WERE LIMITED
- VISITS TO NURSING HOMES WERE BANNED
- UPPER SECONDARY SCHOOLS CLOSED BUT PRIMARY SCHOOLS WERE OPEN
- AS OF APRIL 16, 2021, MORE THAN 13 700 PEOPLE HAVE DIED

ED DURING COVID-19

- THE NUMBER OF VISITS IN 2021 WAS STILL FEWER THAN BEFORE COVID, BUT NOW THE SAME LEVELS BEFORE THE PANDEMIC
- THE MEDIAN WAITING TIME IN 2021: AROUND 1 HOUR
- 1/3 VISIT TO THE ED RESULTS IN HOSPITALIZATION
- TOTAL LENGTH OF STAY INCREASED IN 2021…HALF OF THE VISITS LONGER THAN 4 HOURS

Prophylaxis and Preventive Approach in Trauma

Mustafa Cetin, MD

Hitit University Erol Olcok Training and Research Hospital, Internal Medicine Department, Corum

Trauma remains the leading cause of death and is one of the top five causes of death for those over 45 years of age in the United States. Patients usually require multidisciplinary evaluation, resuscitation, and stabilization in the emergency department. In the ongoing process, patients are at risk for various complications. (1) Special attention should be paid to preventing common complications associated with traumatic injuries. At this point, the prophylactic and preventive approach can be listed under certain headings as follows:

Antibiotics

There is no need for routine antibiotic administration in trauma patients. In particular, there is no need for antibiotic treatment in the absence of a penetrating injury (eg, gunshot wound, stab wound) and in the absence of local signs of infection.

It is appropriate to administer a single dose of prophylactic antibiotics within 1 hour after the incision in patients who require an abdominal exploration. (2,3) Antibiotic prophylaxis can be given in patients requiring surgical intervention and in patients with penetrating chest injuries requiring chest tube placement.

Thromboprophylaxis

Venous thromboembolism (deep vein thrombosis [DVT], pulmonary embolism [PE]) is one of the leading causes of preventable mortality in hospitalized trauma patients. Major risk factors in trauma patients:

Vertebral injury, head trauma, lower extremity-pelvis fracture, need for surgical intervention, femoral venous catheter placement, prolonged immobilization, prolonged hospital stay, advanced age

Various strategies have been used to prevent thromboembolic complications, such as anti-embolic stockings, compression devices, antithrombotic therapy, and prophylactic inferior vena cava filter placement. (4) A meta-analysis in the literature on trauma patients reported that the risk of DVT was significantly reduced in patients who received prophylaxis compared to those who did not receive prophylaxis, but there was no significant difference in the risk of PE or death between the groups. Other findings of the meta-analysis were as follows:

Mechanical prophylaxis reduced the risk of DVT compared to no prophylaxis. Pharmacological prophylaxis was more effective than mechanical methods in reducing the risk of DVT. Low molecular weight heparin reduces the risk of DVT compared to unfractionated heparin. The greatest reduction in DVT risk was seen in patients receiving mechanical and pharmacological prophylaxis.

The optimal approach for trauma patients has not been fully defined. The choice of which method to use depends on the severity of the injuries and the presence of conditions that may contraindicate the use of prophylaxis methods. If possible, at least one method of prophylaxis should be applied to all hospitalized patients with traumatic injuries. Depending on the current risks of the patient, a combination of pneumatic compression devices and low molecular weight heparin is generally used. At-risk patients without contraindications to antithrombotic therapy should receive pharmacological prophylaxis, regardless of their mobility.

Stress ulcer prophylaxis

Severely injured patients (intubated, coagulopathic) and patients with a prior history of ulcers are at increased risk for stress ulcerations. Stress ulcerations are mucosal erosions, usually involving the fundus and body of the stomach. Prophylaxis against stress ulcers is recommended in high-risk patients requiring intensive care

unit admission. There is a strong association between the use of PPIs and Clostridium difficile colitis, this risk is further increased by the combined use of PPIs and antibiotics. The use of histamine-2 (H2) receptor blockers may be a better alternative to provide prophylaxis against gastritis/stress ulcers without increasing the risk of C. difficile colitis. (5)

Glucocorticoids

Patients taking glucocorticoids before trauma may require additional therapy to compensate for the stress response caused by the trauma. In the literature, it has been shown that corticosteroids reduce the dose of vasopressor medication needed in trauma patients, and reduce the incidence of hospital-acquired pneumonia and mechanical ventilation days. (6) Glucocorticoids shorten the time to return of shock in patients with septic shock, but their role in the management of severe trauma patients is still not fully defined and therefore their use is not standard.

Pressure ulcer prevention

Trauma patients kept on bed rest, such as patients requiring long-term respiratory support, are at risk for the development of pressure ulcers.

Major Risk factors:

Age; Deterioration of skin perfusion and skin turgor, loss of tissue elasticity with aging

Moisture; Softening of the epidermis layer, which is exposed to moisture for a long time, then deterioration of tissue integrity develops.

Other; Nutrition, Smoking, Elevated blood glucose level, Severity of the disease, Dry skin, Elevated body temperature, Increased blood viscosity, Decreased blood pressure

Things to do to prevent pressure ulcers are:

Change positions frequently, and check humidity.

Regulate nutrition: Protein and calorie amounts should be increased, and vitamins A, C, and E support.

Control friction and tearing: To prevent friction and tearing, the patient's bedside should not be raised more than 30º, and should not be pulled upwards by holding the armpits by two people.

Hypothermia

Hypothermia following injury is due to the administration of unheated intravenous fluids in the emergency room or exposure to cold at the time of injury and may indicate shock that is due to bleeding. Hypothermic patients often have worse outcomes; however, hypothermia alone is a weak independent predictor of mortality. Specific measures to correct hypothermia include controlling physical exposure, administering heated fluids, and passive rewarming with blankets and air devices. Central rewarming may be required in the case of moderate or severe hypothermia and coagulopathy. (Delivery of heated fluids, rewarming of blood with HD device or rewarming via Airway…)

Fluid Management

At the time of admission, the patient's intake and output flued records should be taken during resuscitation and anesthesia, and the net fluid balance should be determined. Drainage should be measured from chest tubes and wound sites such as open abdominal and fasciotomy wounds. Hemodynamically stable euvolemic patients should receive maintenance and replacement fluids and electrolytes, depending on dietary status. In addition to hypotensive or oliguric patients, crystalloid boluses are administered. In case of ongoing bleeding, blood product transfusion is required to maintain adequate oxygen-carrying capacity and reverse coagulopathy.

Crystalloids; Normal saline (0.9% sodium chloride; Na = 154 mEq/L), Lactated Ringer's solution (Na = 130 mEq/L), and Plasma-Lyte (Na = 140 mEq/L). They are widely used because their sodium content maintains serum osmolarity, which helps retain water in the vascular space and facilitates volume expansion.

Estimated Fluid Deficiency

	Stage 1	Stage 2	Stage 3	Stage 4
Blood loss (%)	<15	15–30	30–40	>40
Blood loss (cm^3)	<750	750–1500	1500–2000	>2000
Pulse rate	<100	>100	>120	>140
Respiratory rate	14–20	20–30	30–40	>35
Blood pressure	Normal	Decreased	Decreased	Decreased
Mental state	Normal/slightly anxious	Mild anxiety	Confusion and Lethargy	Confusion

Emerg Med J 2012;**0**:1–8. doi:10.1136/emermed-2012-201883

In patients with normal organ function, fluid deficiency is typically replaced in a 1:1 ratio, i.e. 1 L fluid loss is replaced by 1 L fluid replacement. In those with a severe stress response to surgery, larger amounts may be required in ratios as high as 3:1. Lower amounts (e.g. 0.5 mL:1 mL) are used in people who are not expected to tolerate excess fluid volume and are expected to require large volumes of other fluids, such as medication or blood products. Treatment should be guided by urine output in patients with normal renal function.

A positive fluid balance is likely in severely injured patients, particularly in patients who have received extensive transfusions (eg acute traumatic coagulopathy). In this population, the administration of crystalloid fluid should be minimized.

The risk of contrast nephropathy is increased, especially in patients who need radiographic examinations with intravenous contrast with a GFR <60 ml/min. Continuing hydration with 1-1.5 ml/kg/h crystalloid 6 hours before and 24 hours after the administration of the contrast agent reduces the incidence of nephrotoxicity. (7) Addition of sodium bicarbonate or acetylcysteine may be beneficial.

Nutritional Support

Nutritional support aims to maintain lean body mass to prevent the negative consequences of protein malnutrition that can lead to multisystem organ dysfunction. Traumatized patients are susceptible to hypermetabolism leading to the breakdown of skeletal protein and inhibition of protein synthesis. In addition, it causes significant protein loss, which can be estimated at 2 g nitrogen per liter of abdominal fluid lost from an open abdomen.

This loss should be taken into account when calculating the daily enteral/total parenteral nutrition (EN/TPN) requirements. The target energy requirement of 20-25 kcal/kg/day is a reasonable starting range to be used to meet the needs of a critically ill patient at normal body weight. (8) Many studies show EN's superiority over TPN. Infectious complications are lower in patients given adequate enteral nutrition. EN enriched with supplementation with glutamine and antioxidants may have additional benefits, but this is controversial. The timing of initiation of EN should be tailored to the patient based on ongoing injuries and interventions. Patients with a significant abdominal injury and operative intervention may not tolerate EN and may require TPN. All patients who are not expected to switch to normal nutrition within 3 days, who are contraindicated within 24-48 hours, or who cannot tolerate EN should be fed with TPN.

TPN indications; ileus, intestinal mechanical obstruction, massive intestinal resection resistant to enteral nutrition, malabsorption, splanchnic hypoperfusion that puts the patient at high risk for mesenteric ischemia and intestinal necrosis, high-output enteral fistula, enteral nutrition intolerance, and enteral nutrition not meeting calorie requirements.

Common Complications in the traumatized patient

- Deep vein thrombosis and pulmonary embolism
- Acute respiratory distress syndrome
- Transfusion-related complications
- Ventilator-associated pneumonia
- Acute kidney injury
- Catheter-associated infection

Transfusion-related acute lung injury (TRALI)

Its rate in whole blood transfusion is 0.02% (1/5000). It is characterized by sudden dyspnea, fever, cyanosis, hypotension, and tachycardia within 6 hours of transfusion. It is caused by antibodies to HLA or granulocyte-specific antigens found in the donor's plasma. *(Leukoagglutinins) Acute Lung Injury* **(ALI)** develops due to the sequestration of agglutinated leukocytes in the pulmonary circulation and subsequent activation of the complement system. Radiologically, infiltration mimicking pulmonary edema (or ARDS) draws attention.

Diagnosis:

- Acute onset (within 6 hours after transfusion)
- Hypoxemia, **PaO2/FIO2≤ 300 mm Hg** or O2 saturation at room air<90%
- Other clinical signs:

  - **Bilateral lung infiltrates on chest X-ray**

  - **No signs of circulation overload**

Treatment-Prognosis

- Respiratory support-oxygen
- Close monitoring of blood gases
- Mechanical ventilation in severe cases (needed in 70% of cases)
- Improvement within 48-96 hours
- Mortality rate averaged 6-9%

References:

1. Raja A, Zane D.R. Initial manangement of taruma in adults.UpToDate.Feb 28,2022.
2. Goldberg SR, Anand RJ, Como JJ, et al. Prophylactic antibiotic use in penetrating abdominal trauma: an Eastern Association for the Surgery of Trauma practice management guideline. J Trauma Acute Care Surg 2012; 73:S321.

3. Smith BP, Fox N, Fakhro A, et al. "SCIP"ping antibiotic prophylaxis guidelines in trauma: The consequences of noncompliance. J Trauma Acute Care Surg 2012; 73:452.
4. Barrera LM, Perel P, Ker K, et al. Thromboprophylaxis for trauma patients. Cochrane Database Syst Rev 2013; :CD008303.
5. Kwok CS, Arthur r AK, Anibueze CI, et al. Risk of Clostridium difficile infection with acid suppressing drugs and antibiotics: a meta-analysis. Am J Gastroenterol 2012; 107:1011.
6. Roquilly A, Mahe PJ, Seguin P, et al. Hydrocortisone therapy for patients with multiple trauma: the randomized controlled HYPOLYTE study. JAMA 2011; 305:1201.
7. Merten GJ, Burgess WP, Gray LV, et al. Prevention of contrast-induced nephropathy with sodium bicarbonate: a randomized controlled trial. JAMA 2004; 291:2328.
8. Burlew CC, Moore EE, Cuschieri J, et al. Who should we feed? Western Trauma Association multi-institutional study of enteral nutrition in the open abdomen after injury. J Trauma Acute Care Surg 2012; 73:1380.

Acil serviste mekenik ventilasyonu kim doğru kullanıyor?

Ramazan Köylü

"Acil serviste mekenik ventilasyonu kim doğru kullanıyor?" sorusunun yanıtı aslında hastasına hastasına kim zarar vermiyor olmalı . Çünkü en başta bilinmesi gereken; mekanik ventilasyonun (Yapay solunum) hastanın hava-yoluna akım ve basınç uygulanarak akciğer hacminin değiştirilmesi işlemi olduğudur. Normal solunumdan farklı olarak gaz akımını sağlayacak basınç farkı havayollarına uygulanan pozitif basınç ile sağlanır. Halbuki normal solunumda gaz akımı, inspiryum sırasında oluşan negatif intratorasik basınç ile sağlandığından pasif bir işlemdir.

Mekanik ventilasyonda ,adeta bir balonu şişirir gibi dışarıdan akciğerlere belirli bir hacimde ve basınçta hava verildiğinden dolayı intratorasik basınç artışının yaratabileceği komplikasyonlardan kaçınmak temel hedefimiz olmalıdır. Bu sebeple ventilasyon stratejimizi akciğerleri koruma üzerine kurmalıyız.

Akciğer koruyucu strateji, barotravma ve volutravma gibi ventilatör ilişkili akciğer yaralanmalarını azaltmaya yönelik düşük tidal volümlü ventilasyonu içermelidir. Akut akciğer hasarı bulguları olsun ya da olmasın acil serviste entübe edilen tüm hastalar için en uygun yaklaşım budur. Akciğer koruyucu stratejinin benimsenmediği tek hasta grubu astım ve KOAH'lı hasta grubudur. Bu hastalarda, akciğer koruyucu stratejinin yüksek solunum hızları ile tam olarak ekshalasyon gerçekleşemeyecek ve bu nedenle hava tuzağı ve barotravma oluşacaktır. Obstrüktif hastalarda ventilatör tedavisinin primer hedefi hastaya ekshale edebilecekleri bir süre oluşturmaktır. Hatta obstrüktif hastada en iyi ventilasyon stratejisi hastayı entübe etmekten kaçınmaktır da denebilir.

Aslında mekanik ventilasyon iki temel noktaya dayanır. Bu iki temel nokta genellikle gözden kaçmaktadır. Hastanızı hangi modda ventile ederseniz edin, en başta karar vermeniz gereken konu vereceğiniz havanın basıncını mı yoksa volümünü mü kontrol etmeniz gerektiğidir. Bu durum ventilasyon modundan tamamen farklı olarak solunum tipi olarak adlandırılır. Cihazı ilk açtığınızda sizden volümü mü yoksa basıncı mı kontrol etmek istediğinizi sorar.

- VCV (Volum Controlled Ventilation)
- PCV (Pressure Controlled Ventilation)

Volüm kontrollü ventilasyonda(VCV), hastaya verilen havanın hacimi kontrol edilir. Yani tidal hacim ve akım sabit ancak basınç değişkendir.Basınç kontrollü ventilasyonda(PCV) ise hastaya verilen havanın basıncı kontrol edilir. Yani basınç sabittir. Akım ve tidal hacim değişkendir.

Bu seçimde önemli ve belirleyici olan, yüksek basıncın istenmediği ve mutlak olarak kaçınılması gereken hasta grubunda izin verdiğimiz basınç limitlerinin üzerine çıkılmasına engel olmak için PCV'nun seçilmesi gerektiğidir. Örneğin yenidoğan ya da küçük çocuklar, minimal pnömotoraksı olup tüp torakostomi ve su altı drenajına bağlanmamış hastalar, büllöz akciğeri olan hastalar gibi yüksek basınca maruz kaldığında istenmeyen komplikasyonların ortaya çıkabileceği hasta gruplarında mutlaka basınç kontrollü solunum tipi tercih edilmelidier. Nitekim yenidoğan ventilatörlerinin hepsi basınç kontrollü ventilasyon uygulayabileceğimiz şekilde dizayn edilmişlerdir. Bu ventilatörler, volüm kontrollü ventilasyon tipi yazılımı üretim aşamasında yüklenmeden pazarlanmaktadır.

İkinci dikkat edeceğimiz konu tetikleme hassasiyetidir. Bir ventilatörde ekspirasyonun son bulduğu anda inspirasyonu başlatan mekanizmaya tetkleme denilir. Ventilatörler; basınç, akım ya da zaman ilişkili olarak 3 şekilde tetiklenebilir.

Basınç tetiklemesinde devredeki kaçaklar "auto-trigger"a sebep olabilir. Kaçaklardan dolayı PEEP kaybı olabilir. Akım tetiklemesinde PEEP kaybı olmaz. Akım tetiklemesi daha az solunum iş yükü ve daha hızlı ventilatöre cevap demektir. Zaman tetiklemesinde ise solunum hızı belirlenir. Solunum hızı 12 soluk/dk ise respiratuar siklus

her 5 saniyede bir oluşturulacaktır. Hastada bir solunum çabası olmaz ise zaman tetiklemesi devreye girer. Ve ayarlanan aralıkta hastayı solutur. Yani hastayı nefessiz bırakmayacağından dolayı adeta bir emniyet sübabı rolü üstlenir.

Fraksiyonel İnspire Edilen Oksijen Konsantrasyonu (FiO_2).

İspire edilen havadaki oksijen oranıdır. Amaç: PaO_2 >60mmHg, O_2 sat > %90 üzerinde tutmaktır. Başlangıçta % 100 olacak şekilde ayarlanır. Ancak entübasyon öncesi verilen FiO_2 ile O_2 sat >%90 ise başlangıç ayarı düşük tutulabilir(<%60). 24 saatten daha uzun süre %100 O_2 Oksijen vermek çok toksiktir. Oksijen toksisitesi riski FiO_2<%40'ın altına çekilmediği sürece daima olacaktır.

Tidal volüm (V_T)

İstirahat halinde iken tek soluk alış esnasında akciğerle giren ya da tek soluk veriş esnasında akciğerlerden çıkan hava miktarı; soluk hacmi; tidal volüm olarak adlandırılır.

6-10ml/kg (ideal ağırlık)

ARDS(akut solunum sıkıntısı sendromu) 4-6ml/kg

KOAH <8ml/kg

Hastanın kan gazı değerleri ve konforuna göre artırılabilir. (Tidal volüm, kişiden kişiye değişmekle beraber yetişkin normal bir kimsede ortalama 500 mililitredir)

PEEP-AYAR

2 cmH_2O ile başlanır

1-3 cmH_2O azaltmak veya artırmak

Her ayardan sonra oksijenasyon ve hemodinamik inceleme gerekir.Optimal PEEP en düşük FiO_2 ile PaO_2>60 mmHg ve $satO_2$>%90 üzerinde tutacak değerdir. Alveolleri stabilize etmede ve oksijenasyonu düzeltmede etkilidir. Ancak yan etki olarak gaz alış-verişini bozabilir, kardiak outputu azaltır ve barotravma neden olabilir.

Solunum sayısı (f)

Fizyolojik ölçülerde ayarlanmalıdır

Başlangıç ayarı 12-16/dk

Yüksek frekansta: T_E

Oto PEEP

Barotravma

Uyum problemi

Hipervent-Hipokapni

I:E Oranı

Bir inspirasyon süresidir

Başlangıç ayarı olarak Ti 1 sn (0.8-1.2 sn) iyi bir başlangıç

Genellikle I:E oranı 1:2 1:3 ayarlanır

V_T, RR, Flow, T_i ile değişir

Kısa inspirasyon ölü boşluk solunumuna neden olur

Uzun inspirasyon MAP'ı(Paw) artırır

1:3, 1:4, 1:5 veya daha uzun (KOAH veya hava hapsi)

Atelektazi eğilimi olduğunda ise bu oran 1/1, hatta tersine olabilir (IRV modu)

Acil Serviste Noninvaziv Mekanik Ventilasyon

Acil serviste solunum sıkıntılı hastaları bir maske ile pozitif basınçla solutarak kısa sürede rahatlatabilen, entübasyon ve yoğun bakıma yatış gereksinimini azaltan bir yöntemdir.NİMV; sürekli pozitif hava yolu basıncı (CPAP) ve bilevel pozitif hava yolu basıncı (BPAP) olarak iki modda uygulanabilir.

NİMV'nin fizyolojik etkileri: Pozitif basınçlı ventilasyonun; kapalı alveollerin açılması, açık alveollerin daha da genişletilmesi ve genişleyen alveollerin etkisiyle interstisyum sıvısının yanlara itilmesi ile gaz değişim alanını artırır. Böylece oksijenasyonda daha belirgin olmak üzere gaz değişimini iyileştirir. Daha iyi ventilasyon ile CO_2 atılımı sağlanır. Solunum kaslarının daha verimli çalışması sağlanır ve solunum kaslarının iş yükü kısmen ya da tamamen ventilatör tarafından karşılanır, solunum iş yükü azalır.

CPAP

- CPAP tüm solunum siklusu boyunca sabit bir pozitif basınç desteği sağlayarak solunum işini azaltmayı hedef alır. Bunun analoğu olan PEEP invaziv mekanik ventilasyon sırasında ayarlanır ve bu terimler birbirinin yerine kullanılabilmektedir.
- CPAP primer hipoksemik solunum yetmezliği olan hastalarda en kullanışlı moddur.

BPAP

- BPAP'ın temel kullanım endikasyonu hiperkarbik (Tip 2) solunum yetmezliğidir. Ancak hipoksik solunum yetmezliğinde de kullanılabilir.
- Ayrıca BPAP modunda cihazın kaçak toleransı CPAP'a göre daha iyidir ve özellikle kooperasyonu kötü hastalarda daha iyi sonuç verir ve daha uzun süre kullanılabilir.
- Kooperasyonu kötü ve uzun süre NİMV gerekecek hastalarda seçilmesi gereken moddur.

Yüksek akımlı nazal kanül oksijen (HFNC)Yüz maskesi yerine nazal kanülle yüksek akımlı oksijen uygulanmasını sağlayan bir yöntemdir.Bu cihaz yüksek konsantrasyonda ve yüksek akışlı nemlendirilmiş oksijen sağlar. Özellikle hipoksemik solunum yetmezliği olan hastalarda kullanımına dair çalışma sonuçları umut vericidir.

Sonuç olarak, bu temel cihaz ayarlarını ve ventilasyon stratejisi hakkında bilgi sahibi olmak, "Önce zarar verme" prensibinin ışığında mekanik ventilasyonu en uygun şekilde uygulayabilmemiz için gereklidir. Ayrıca genellikle dikkat edilmeyen ve sıklıkla hata yapılan konulardan birisi de mekanik ventilatöre bağlanan ancak matabolik yönden asit-baz dengesi ve kompansasyon mekanizmalarına dikkat edilmeyen hastalardır. Derin metabolik asidozdaki hastalarda solunumsal kompansatuar mekanizmalar devreye girer ve organizma solunum sayısı arttırır. Burada amaç bikarbonattaki düşüşü kompanse etmek için karbondioksiti düşürmek ve hastanın kollapsa ilerlemesine engel olmak ve pH değerini yukarıya çekmektir. Asidotik solunum olarak adlandırdığımız ve solunum sayısının 25-30'ların üzerine çıktığı bu takipneik durum kollapsı engellemeye yetmez de hastada mekanik ventilasyon endikasyonu da doğarsa frekansı düzenlerken normal solunum hızlarında(12-16/dk) yapılacak bir ayarlamada hastanın mevcut solunumsal kompansasyon mekanizmasını tam tersine çevirecek ve metabolik asidozu daha da ağırlaştıracak ve hastanın kaybedilmesine sebep olacaktır. Bu durumda en uygun ventilasyon stratejisi hastanın başlangıçta yüksek frekansta solutularak(25-30 gibi ya da mekanik ventilasyon öncesi hastanın soluk sayısına eşdeğer hızda), hızla metabolik asidozunu düzeltmek ve ondan sonra frekans ayarlarını normal solunum hızlarına çekmek şeklinde olmalıdır.

Current Guidelines in Emergency Sedoanalgesia

Ahmet Kayalı

The history of sedation or procedural sedation started with anesthesia with Nitrous Protoxide (N2O), like all anesthesia history (1). 1800: Nitrogen Protoxide (N2O) anesthetic effects are discovered. 1844: Horace Wells, first surgical (tooth extraction) procedure under anesthesia. 1900s: Other drugs began to be used in anesthesia. 1980: Sedoanalgesia was accepted as a discipline in anesthesia (1).

Definitions:

SEDATION

It is a medically controlled depressive state of consciousness in which protective reflexes are preserved, the patient's ability to maintain an independent and clear airway is not lost, and allows the patient to respond appropriately to physical stimulation or verbal command (2).

ANALGESIA

In its simplest form, it is described as the absence of pain sensation without loss of consciousness. The feeling of pain may disappear spontaneously or with the effect of the drug taken. Analgesic drugs can be given in many ways such as oral, intramuscular, intravenous. However, it should be preferred more for reasons such as adjusting the amount of drug given in intravenous use, faster onset of the effect and faster return of the effect (2).

ANESTHESIA

Anesthesia is a drug-induced unconsciousness in which patients cannot be awakened even by painful stimuli. It consists of general anesthesia and spinal or major regional anesthesia, it does not include local anesthesia. The ability to independently maintain respiratory function is often impaired. Patients generally need assistance in maintaining an open airway and positive pressure ventilation may be required due to depression of neuromuscular function (3).

SEDATION ANALGESIA

It is the combination of sedation analgesia to provide patients with maximum safety and comfort, to facilitate anxiety sleep, and to provide adequate pain control (4). Analgesia and sedation are generally used for two main purposes in patients.

1. Reducing or eliminating pain

2. To increase patient safety and comfort during invasive procedures (5).

Another use is to increase the patient's compliance with the ventilator and thus reduce the need for oxygen (6).

PROCEDURAL SEDATION ANALGESIA

It is defined as the technique of administering sedatives or dissociative substances with or without analgesics to induce a condition that allows the patient to tolerate certain medical procedures while maintaining circulatory and respiratory function. Procedural sedation analgesia (PSA) creates depression at different levels of consciousness in a controlled manner that allows the patient to maintain oxygenation and airway control independently (7).

With these developments in the field of anesthesia, their use is beginning to increase in line with the needs in clinics such as dentistry and gastroenterology, especially in the anesthesia clinic. Today, due to the increasing use

of emergency services in emergency services, the need to develop usage algorithms and guides has emerged. Because different clinics use sedoanalgesia, common guidelines created by a single clinic or by more than one clinic have been developed. The situation in the emergency room is similar.

International

ICAPS: International Committee for the Advancement of Procedural Sedation

ICAPS includes members from nine countries on five continents, with representation from anesthesia, critical care, dentistry, emergency medicine, gastroenterology, hospital medicine, and pediatrics (8).

Publications

Procedural sedation: Providing the missing definition. Anaesthesia 2021; 76:598-601.

An international multidisciplinary consensus statement on fasting before procedural sedation in adults and children. Anaesthesia 2020; 75: 374-385.

Tracking and reporting outcomes of procedural sedation (TROOPS): Standardized quality improvement and research tools from the International Committee for the Advancement of Procedural Sedation. British Journal of Anaesthesia 2018; 120:164-172.

Policy statements

Definition for the Practice of Procedural Sedation, adopted June 1, 2020

Minimum, Required Skill Sets for Procedural Sedation, adopted March 4, 2019

Multidisciplinary Leadership in Sedation, adopted 2016, updated and reaffirmed February 18, 2021

Defining Sedation Competencies Using Skill Sets, adopted 2016, updated and reaffirmed June 1, 2021

Preference for "Sedation Practitioner" Over "Non-Anesthesiologists" In Sedation Guidelines and Documents, adopted 2016, updated and reaffirmed January 29, 2022

The mission of ICAPS is to provide an independent, international, multidisciplinary forum to facilitate open dialogue and consensus generation between experts in the area of sedation, and to promote optimal, evidence-based, safe and effective practices for worldwide procedural sedation and analgesia in patients of all ages (8).

Definition for the Practice of Procedural Sedation

The practice of Procedural Sedation is the administration of one or more pharmacological agents to facilitate a diagnostic or therapeutic procedure while targeting a state during which airway patency, spontaneous respiration, protective airway reflexes,1 and hemodynamic stability are preserved,2 while alleviating anxiety and pain (9).

Notes: 1. For procedures such as bronchoscopy, procedural sedation may occur with concurrent blunting of airway reflexes with local anaesthesia.

2. Sedation states within the purview of the above definition include minimal sedation, moderate sedation, dissociative sedation, and deep sedation. The practice of procedural sedation differs from the practice of general anaesthesia, which targets an unarousable state in which airway intervention is often required and spontaneous ventilation is frequently inadequate; see: https://www.asahq.org/standards-and-guidelines/continuumof-depth-of-sedation-definition-of-general-anesthesia-and-levels-of sedationanalgesia

The primary modality for ICAPS consensus generation was a series of internet-based questionnaires constructed and implemented using the principles of the anonymized nominal group technique and the Delphi method. After a general survey of committee members regarding optimal reporting format and content, a committee task force

drafted, and then circulated, a preliminary tool structure and definitions. We then initiated a sequential consensus generation process using an iterative series of internet surveys. After each round, the responses from all members were displayed to all in an anonymous fashion.

Amerika:

American College of Emergency Physicians (ACEP):

Clinical Policy: Procedural Sedation and Analgesia in the Emergency Department (2014)

Policy statement on procedural sedation in the emergency department (2017)

Policy statement on unscheduled procedural sedation – A multidisciplinary consensus practice guideline (2018):

Various specialty societies, including the American College of Emergency Physicians (ACEP), have crafted practice guidelines to outline core procedural sedation principles and to address specialty-specific needs, challenges, and patient populations. However, a limitation of existing guidelines has been their primary emphasis on issues and practices germane to scheduled, elective sedation encounters. Many patients in various clinical settings regularly require unscheduled procedural sedation on short notice to facilitate urgent or emergent procedures, for which many aspects of patient management must differ from elective procedural sedation.1-30 To better address the needs of time-sensitive, unscheduled procedural sedation, ACEP has organized a multidisciplinary effort to create a clinical practice guideline specific to unscheduled procedural sedation regardless of location or patient age (10).

Literature Search

This guideline is based on critical analysis of the existing literature. Our medical librarian performed searches of the MEDLINE and Scopus databases. We limited all searches to human studies from English-language sources published between January 1, 2000 and August 10, 2018.

Scope of Guideline

This document provides guidance for practitioners of unscheduled, time-sensitive procedural sedation, as defined above. We did not seek to address scheduled elective procedural sedation, the administration of analgesics to achieve analgesia or sedatives to achieve anxiolysis or sedation in the absence of a concurrent procedure, and minimal sedation given its negligible patient risk.

Europe:

In Europe anaesthesilogy clinic has guideline of procedural sedation and analgesia for all clinics. Not specialized for emergency clinics.

European Society of Anaesthesiology (ESA) and European Board of Anaesthesiology(EBA): Guidelines for procedural sedation and analgesia in adults (2018)

Only United Kingdom have Emergency PSA guidelines.

First guideline was published in 2001 in United Kingdom:

Academy of Medical Royal Colleges (AOMRC): Implementing and ensuring safe sedation practice for healthcare procedures in adults. AoMRC, London 2001:1–21. First update was in 2013: Safe sedation practice for healthcare procedures: standards and guidance. Second update came in 2021: Guideline on safe sedation practice for healthcare procedures, update (2021).

This guidelines contains: This document makes recommendations to support formal competency-based training for healthcare professionals wishing to use conscious sedation techniques for diagnostic and therapeutic procedures. This document supercedes the previous Academy publication, Implementing and ensuring safe se-

dation practice for healthcare procedures in adults.1 This report should be regarded as a baseline for all forms of sedation in all areas of practice, including the sedation of children. The Francis Report² defines an integrated hierarchy of standards. Fundamental Standards need to be applied by all those who work and serve in the healthcare system. No provider should provide any service that does not comply with these Fundamental Standards, in relation to which there should be zero tolerance of breaches (11).

Royal College of Emergency Medicine (RCEM):

Best practice guideline on pharmacological agents for procedural sedation and analgesia in the emergency department (revised 2020)

Position statement on emergency medicine advanced clinical practitioners (EM-ACPs) providing safe sedation in the adult emergency department (2020)

Procedural Sedation In Emergency Department (August 2022):

Reason for development

This guidance seeks to amalgamate a number of existing Best Practice Guidance documents on the subject of procedural sedation.

Procedural sedation (PS) is a core skill for emergency department clinicians. The ED setting provides unique challenges, regarding the need for emergency and urgent (unscheduled) procedures in patients who may have co-existing injuries, illnesses, anxiety and pain who may have ingested fluid or food recently. PS may avoid the need for admission for general anaesthesia both in adults and children, but this must not be to the detriment of patient safety or quality of care.

Anecdotally, PS practice varies widely. This document provides guidance on governance structures as well as staffing, equipment and pharmacological agents and doses (12).

Also EUSEM (Europan Society For Emergency Medicine) have guideline for acut pain management. Guidelines for the management of acute pain in emergency situations (March 2020)

Kaynaklar

1. Green SM, Krauss B. Procedural sedation terminology: moving beyond "conscious sedation." Ann Emerg Med. 2002;39:433-5. doi: 10.1067/mem.2002.122770.

2. Cravero jP, Blike GT. Review of pediatric sedation. Anesth Analg. 2004;99(5):1355-64. doi: 10.1213/01.ANE.0000134810.60270.E8.

3. Sedation and Anesthesia - Understanding the Assessment Requirements Ambulatory | Provision of Care Treatment and Services PC | The joint Commission 2022. Erişim tarihi: 10 Şubat 2022. Erişim linki: https://www.jointcommission.org/standards/standard-faqs/ambulatory/provision-of-care-treatment-and-services-pc/000001645/

4. Celis-Rodríguez E, Birchenall C, de la Cal mÁ, Castorena Arellano G, Hernández A, Ceraso D, et al; Federación Panamericana e Ibérica de Sociedades de medicina Crítica y Terapia Intensiva. Clinical practice guidelines for evidence-based management of sedoanalgesia in critically ill adult patients. med Intensiva. 2013;37(8):519-74. English, Spanish. doi: 10.1016/j.medin.2013.04.001.

5. Barnes S, Yaster m, Kudchadkar SR. Pediatric Sedation management. Pediatr Rev. 2016;37(5):203-12. doi: 10.1542/pir.2014-0116.

6. Keogh Sj, long DA, Horn DV. Practice guidelines for sedation and analgesia management of critically ill chil-

dren: a pilot study evaluating guideline impact and feasibility in the PICU. Bmj open. 2015;5(3):e006428. doi: 10.1136/bmjopen-2014-006428.

7. Sheta SA. Procedural sedation analgesia. Saudi j Anaesth. 2010;4(1):11-6. doi:10.4103/1658-354X.62608

8. Roback MG, Green SM, Andolfatto G, Leroy PL, Mason KP. Tracking and Reporting Outcomes Of Procedural Sedation (TROOPS): Standardized Quality Improvement and Research Tools from the International Committee for the Advancement of Procedural Sedation. Br J Anaesth. 2018 Jan;120(1):164-172. doi: 10.1016/j.bja.2017.08.004. Epub 2017 Nov 23. PMID: 29397125.

9. Green SM, Irwin MG, Mason KP; International Committee for the Advancement of Procedural Sedation. Procedural sedation: providing the missing definition. Anaesthesia. 2021 May;76(5):598-601. doi: 10.1111/anae.15213. Epub 2020 Jul 23. PMID: 32701166.

10. Green SM, Roback MG, Krauss BS, Miner JR, Schneider S, Kivela PD, Nelson LS, Chumpitazi CE, Fisher JD, Gesek D, Jackson B, Kamat P, Kowalenko T, Lewis B, Papo M, Phillips D, Ruff S, Runde D, Tobin T, Vafaie N, Vargo J 2nd, Walser E, Yealy DM, O'Connor RE. Unscheduled Procedural Sedation: A Multidisciplinary Consensus Practice Guideline. Ann Emerg Med. 2019 May;73(5):e51-e65. doi: 10.1016/j.annemergmed.2019.02.022. PMID: 31029297.

11. Academy of Medical Royal Colleges. (2013) Safe sedation practice for healthcare procedures: standards and guidance. https://www.aomrc.org.uk/wp content/uploads/2016/05/Safe_Sedation_ Practice_1213.pdf

12. James France, Sian Thomas, Gavin Lloyd. Procedural Sedation in the Emergency Department. The Royal College of Emergency Medicine Best Practice Guideline. RCEM_BPC_Procedural_Sedation_Final_Aug_22.pdf.

TYPES OF DISASTERS AND TACTICAL MEDICINE

Murat Tepe

Kilis State Hospital, Department of Emergency Medicine

Disaster Definition

It is defined as an event caused by nature, technology or human beings, which causes physical, economic and social losses for all or certain segments of the society, stops or interrupts normal life and human activities, and where the coping capacity of the affected society is not sufficient (1). According to ACEP, disaster; It is an event in which the resources of a community are not sufficient and require the intervention of a large number of institutions. ACEP divides the disaster into 3 classes according to its magnitude (2).

1. Minor disaster; These are the events that require the least level of national intervention that localm governments can intervene with their own power and capacity.
2. Great disaster; These are events that exceed the capacity of local governments and require state intervention at the national level.
3. Catastrophic disaster; are defined as events requiring very serious state support, including military support.

Disaster Types

Disasters can be divided into two main groups, natural disasters and man-made disasters. Examples of natural disasters; earthquakes, tsunamis, landslides, floods, droughts, storms and hurricanes. Man-made disasters; It refers to events such as wars, terrorist attacks, air pollution, riots, displacement of people and becoming refugees, epidemics and nuclear power plant leaks (3).

Disasters in Our Country

There are various studies examining the risk situations of countries related to disasters and humanitarian crises around the world, Risk Management Index (INFORM) is one of the most important of these studies. According to INFORM index score; 0-2 is very low risk, 2-3.5 is low risk, 3.5-5 is medium risk, 5-6,5 is high risk, and 6.5-10 is very risky. My country has an INFORM index score of 5.0 and is in the high-risk group and ranks 45th among 191 countries (1). Our country is in a geographical location where natural disasters occur frequently. This geographical location exposes Turkey to various natural disasters such as earthquakes, avalanches, floods, landslides and rockfalls. Among these disasters, the type of disaster that causes the most loss of life and property is earthquakes, and it is the cause of a serious proportion of 60% of disaster-related deaths (1). Our country is located on the Mediterranean-Alpine-Himalayan line, which is one of the most active faults in the world. Information about the important earthquakes and loss of life that occurred in our country between 1990 and 2017 is shown in Table 1. (1).

Table 1. Major Earthquakes that Occurred in Our Country Between 1990-2017

Types of Disaster	Area	Date	Number of died people	Number of wounded people
Earthquake	Erzincan	1992	653	3850
Earthquake	Afyon (Dinar)	1995	94	240
Earthquake	Çorum/Amasya	1996	0	6
Earthquake	Adana (Ceyhan)	1998	145	1600
Earthquake	İzmit	1999	17480	43953
Earthquake	Düzce	1999	763	4948
Earthquake	Afyon	2002	42	327
Earthquake	Bingöl	2003	177	520
Earthquake	Van (Erciş and Edremit) 2 event	2011	644	1966

Disaster Management

Disaster management; It is a multi-actor management process that ensures the measures to be taken before, during and after the disaster, the implementation, coordination and support of the works to be done, and the correct use of resources in line with the determined strategic goals (4).

Disaster Management in Our Country

In our country, we can divide the disaster management process into two groups as the pre-Disaster and Emergency Management Presidency (AFAD) and the AFAD period. In the pre-AFAD period, serious arrangements were made in disaster management after the 1998 Ceyhan earthquake and the 1999 Marmara earthquake (1).

In 2009, AFAD was established under the Prime Ministry, and the authorities and responsibilities were gathered in a single center, since it was deemed necessary to gather the management of the institutions that are required to work together in a single hand in case of disasters and emergencies. In 2018, it was connected to the Ministry of Interior by presidential decree. With the AFAD period, the understanding of 'Crisis Management' has been shifted to that of 'Risk Management' (1).

Disaster Medicine

Disaster medicine is a discipline that combines studies in emergency health services, emergency medicine, disaster management and public health (5). Regardless of the cause of the disaster and the duration of its occurrence, the activities related to disaster medicine are divided into four main stages: 1- Planning and Mitigation, 2-Preparation, 3-Response to the Incident, 4-Remediation (6).

Planning and mitigation; It is the creation of risk analyzes in which disasters that may occur in a region and their consequences are evaluated.

Don't prepare; Simulation exercises and disaster scenarios are made by taking into account the problems and needs experienced in previous disasters.

Intervention and response; It is the implementation of the prepared plans and the determination of unforeseen deficiencies and problems and producing solutions.

Improvement; The main purpose in this period is to provide pre-disaster opportunities for patients and health personnel and to eliminate their deficiencies (6).

TACTICAL MEDICINE

Tactical Medicine definition

Tactical Medicine is the field of medicine that deals with the medical care given in cases of injury and illness that occur during the operations of law enforcement and military forces (7).

Tactical Medicine History

The concept of Tactical Combat Casualty Care (TCCC) was first introduced by the United States private military units in 1996 and has survived to the present day. In 2008, it was included in the Tactical Combat Casualty Care Committee (Co-TCCC). In the future, the Tactical Emergency Casualty Care Committee (C-TECC) was established for civilian areas and the Tactical Emergency Casualty Care (TECC) guide was developed (8).

Tactical Field Definitions

It is the characteristic of the field of study that makes the tactical medicine approach special and important. This environment, where environmental safety cannot be fully ensured, can be roughly evaluated in 3 groups as hot, warm and cold areas (9).

Hot area; refers to the area under direct threat.

Warm area; It refers to the environment in which the threat is potentially present but does not directly affect it.

Cold area; It is called the safe area located at the outermost part of the tactical area, where there is no obvious danger and where the attacking person or group cannot directly influence (9).

Medical Intervention in the Tactical Field

Various guidelines have been prepared to standardize interventions in the tactical field. TCCC is specially prepared for the military tactical field, TECC is specially prepared for the civilian tactical field. These guidelines recommend intervention to the casualty according to the risk situation of the tactical area.

hot area medical intervention; Fire superiority is the primary priority for the military tactical area, and tactical superiority is the primary priority for the civilian tactical area to prevent the existing danger. The medical intervention that is particularly emphasized for this area is bleeding control (8).

Warm area medical intervention; The potential danger remains, but there is no direct threat. MARCH reminder can be used; Massive bleeding control, airway (A-airway), breathing (R-respiration), circulation (C-circulation) and head injury (H-head injury). Tourniquet, needle decompression, intubation, analgesia and preparation of the patient for evacuation are the medical interventions that can be applied (8).

Cold area medical intervention; there is no potential danger in this area and the area can be considered safe. All necessary medical interventions can be performed until definite care conditions are met (8).

Conclusion

Terrorist attacks are one of the most important man-made disasters that are increasing all over the world. Bleeding is the most important cause of death of people in these attacks. In order to reduce deaths due to terrorist attacks, health personnel who provide pre-hospital emergency health services can be given training to increase their skills on bleeding control. In addition, TCCC training will increase the success of medical intervention. Our country is located in a high-risk geography in terms of natural disasters. Therefore, medical intervention skills in the civilian tactical field are important for health personnel. Exercises and courses related to the TECC guideline will improve the field response skills of healthcare personnel.

References

1) AFAD (2018), Türkiye'de Afet Yönetimi Ve Doğa Kaynaklı Afet İstatistikleri

2) Disaster Medicine Section, https://www.acep.org/disastermedicine/resources/introductory-training-and-references/. Erişim:26.10.2022

3) Önsüz M., & Atalay B. (2015). Afet lojistiği. *Osmangazi Tıp Dergisi*, *37*(3), 1-6.

4) Varol N., & Kaya ÇM. (2018). AFET RİSK YÖNETİMİNDE TRANSDİSİPLİNER YAKLAŞIM. *Afet ve Risk Dergisi*, *1*(1), 1-8.

5) Kocak H., Kinik K., Caliskan C., & Aciksari K. (2021). The science of disaster medicine: from response to risk reduction. *Medeniyet medical journal*, *36*(4), 333.

6) ÖZÜÇELİK DN. (2019). AFET TIBBI. *Journal of ADEM*, *1*(1), 13-18.

7) Butler FK., Bennett B., & Wedmore CI. (2017). Tactical combat casualty care and wilderness medicine: advancing trauma care in austere environments. *Emergency Medicine Clinics*, *35*(2), 391-407.

8) Karaca MA. (2018). Taktiksel Tıp. *Anatolian Journal of Emergency Medicine*, *1*(1), 24-28.

9) Pennardt AM., & Schwartz RB. (2014). Hot, warm, and cold zones: applying existing national incident management system terminology to enhance tactical emergency medical support interoperability. *Journal of special operations medicine: a peer reviewed journal for SOF medical professionals*, *14*(3), 78-79.

Acute Agitation Management In The Emergency Department

Cüneyt Arıkan

Izmir Atatürk Training and Research Hospital, Department of Emergency Medicine, Izmir

Introduction

Agitation is any set of vocal, verbal and/or motor behaviors that endanger the safety of a person or his/her close environment, preventing medical care, disrupting the functionality of the person (1). The underlying goal of treatment with every acutely agitated patient is to treat agitation in order to allow performance of a thorough medical evaluation as soon as it safe to do so

Epidemiology

1.7 million episodes of acute agitation are treated annually in U.S. and 50-78% of health care providers in emergency department (ED) are victims of violence (2). Türkiye and Australia report similar rates of violence (3,4).

Etiology And Differential Diagnosis

A wide variety of factors may play a role in the pathogenesis of violent behavior, including the environment, the patient's social and medical history, genetics, neurochemistry and endocrine function, and substance abuse. Drug and alcohol intoxication or withdrawal are the most common diagnoses in ED. A history of incarceration due to known psychiatric illness (schizophrenia, personality disorders, mania and psychotic depression), violence, psychosis, delirium and dementia is also a risky group.

General Therapeutic Approach

Approach the agitated patient with safety in mind. This safety planning should start even before agitated patients arrive. Attempt verbal deescalation in all patients. If agitation persists or worsens, employ a "show of concern." Treat underlying medical problems first. Restraints should be used sparingly and only to protect the staff or patient from harm. Target medication to the most likely cause of agitation and use oral medicines when possible. Use second-generation antipsychotics as first-line agents in most situations not involving alcohol intoxication.

Violence Prevention In The Emergency Department

General prevention measures

- Large security force
- Metal detectors
- Bulletproof plexiglas in triage areas
- Keypad security entry system
- Monitoring entry into the ED
- Strong barriers to prevent cars from driving into the department
- Alarm systems
- Caretaker education

Patient Evaluation

All patients must be disarmed before an interview (Metal detectors, undressing and placing in a gown). The setting of the patient interview should be private but not isolated. Security personnel should be nearby and the door

left open to allow both intervention and escape by the clinician. The patient should not sit between the clinician and the exit, nor should the exit be blocked. Two exits should be available and doors should swing outward. The interview room should not contain heavy objects or other potential weapons. The clinician should have a mechanism for alerting others of danger, (panic button or a code word). Glasses, earrings, neckties, and necklaces should be removed.

An obviously angry patient should always be considered potentially violent. Signs of impending violence include; provocative behavior, angry demeanor, loud and aggressive speech, tense posturing (eg, gripping arm rails tightly, clenching fists), frequently changing body position, pacing, aggressive acts (eg, pounding walls, throwing objects, hitting oneself)

Management

Patients who are agitated but cooperative may be amenable to verbal deescalation techniques. Actively violent patients and uncooperative, agitated patients, particularly those who exhibit signs of impending violence, require immediate restraint. Patients who obviously do not understand what is occurring, for psychiatric or other reasons, or are unable to communicate and are perceived by medical staff to be potentially violent should be restrained.

Verbal Techniques

Nearly all patients deserve the chance to calm down in response to verbal techniques before physical restraints or sedative medications are implemented. Agitated but cooperative, nonviolent patients may be amenable to verbal deescalation techniques. If the patient remains resistant or violent or is incapable of interacting appropriately then restraint is necessary.

A consensus statement from the American Association for Emergency Psychiatry De-escalation Workgroup describes 10 key elements for verbal de-escalation (5):

1. Respect personal space
2. Do not be provocative
3. Establish verbal contact
4. Use concise, simple language
5. Identify feelings and desires
6. Listen closely to what the patient is saying
7. Agree or agree to disagree
8. Lay down the law and set clear limits
9. Offer choices and optimism
10. Debrief the patient and staff.

Physical Restraints

Physical restraints can be used when, despite a professional and proper approach to the combative patient, verbal techniques are unsuccessful. Restraints are never to be applied for convenience or punishment, and should be removed as soon as possible, usually once adequate chemical sedation is achieved. Once the patient is restrained, the clinician must investigate the cause of agitation and determine whether it is medical (ie, organic) or psychiatric (ie, functional). Patients over the age of 40 with new psychiatric symptoms are more likely to have an organic cause. Elderly patients are at higher risk for organic delirium due to medical illness or adverse reactions to medications.

Chemical Sedation

The ideal sedative medication would be rapidly acting, effective regardless of the route of administration, and possess minimal side effects.

The major types of medications used

- Benzodiazepines,
- First-generation (typical) antipsychotics,
- Second-generation (atypical) antipsychotics
- Ketamine

Patient-based approach to drug selection

For **severely violent patients** requiring immediate sedation:

- Rapidly acting first generation (typical) antipsychotic (eg, droperidol)
- Benzodiazepine (eg, midazolam)
- Combination of a first generation antipsychotic and a benzodiazepine (eg, droperidol and midazolam, or haloperidol and lorazepam).

For patients with agitation from **drug intoxication or withdrawal**:

- Benzodiazepine

For patients with **undifferentiated agitation**:

- Benzodiazepines
- First-generation antipsychotics

For agitated patients with **a known psychotic or psychiatric disorder**:

- First generation antipsychotic agents Second-generation antipsychotics

Some patients may have paradoxical reactions and become more agitated after receiving a particular medication. Move to **a different class** when the first is ineffective or excessive doses are required.

In ED prefer to use medications with proven efficacy and relative safety. First of all, prefer **oral forms** instead of parenteral forms. Psychiatrists may prefer to use different medications for chemical sedation. When appropriate medications, doses, and procedures are used for the chemical sedation in the ED, **major adverse side effects are uncommon.**

Legal considerations

Care of the combative patient is very much fraught legal considerations and potential risks. The patient should be assessed by the clinician to determine if the patient appears to have the capacity to make reasonable decisions about their health care, workup, and therapy. If a clinician decides to suspend the liberty of a patient and make decisions for them, the reasons should be clearly documented in the medical chart and any required forms completed. When a clinician restrains a patient physically or sedates them chemically they become responsible for the well-being of the patient. Attention to adequate comfort, hydration, respiration, bathroom needs, and protection are required. Such a patient must be closely monitored. Should physical restraints be placed, they should be removed as soon as possible. A patient with the capacity to make reasonable decisions and who poses no threat to himself, the medical staff, or others cannot be confined or restrained without their permission.

Disposition

In general, violent behavior unrelated to organic illness or drug intoxication or withdrawal should be followed by psychiatric consultation and evaluation. If the etiology of the patient's violent behavior is due to drug or alcohol intoxication, the patient should be observed until he or she has reached the point where a therapeutic interview

can be conducted by the psychiatrist. All discharged patients should be given specific follow-up evaluation and discharge instructions. If a violent patient escapes the ED, law enforcement authorities should be notified. If the patient threatened violence to a specific individual before escape, that individual should be notified as well.

Defense Against Assault

Unfortunately, physical assault may occur despite appropriate precautions and interventions. If assaulted, immediately summon help, preferably by use of a panic button. Maintain a sideward posture, keeping the arms ready for self-protection. If faced with a punch or a kick, deflect with an arm or a leg. If choking is attempted, tuck the chin in to protect the airway and carotid arteries. If bitten, do not pull away, but rather push toward the mouth and hold the nares shut to entice opening of the mouth. If threatened with a weapon, try to appear calm and comply with demands. If taken hostage, attempt to establish a human connection with the hostage taker, as a hostage taker will rarely murder someone if a relationship has been established. Do not bargain or make promises, and do not lie, as the consequences could be disastrous. Reassure the hostage taker that someone authorized to hear his or her complaints or demands should arrive promptly. If a weapon is put down, do not reach for it, but rather attempt to verbally resolve the crisis while awaiting security arrival. Call law enforcement authorities to provide a professional hostage negotiator if needed. Each hospital should have a plan of action in the case of extreme violence.

Special Populations

Pregnant women, elderly patients, and children represent specific subgroups in whom nonpharmacologic approaches are generally preferred over antipsychotics or benzodiazepines, even though acute short-term use of these agents has occasionally been suggested in the ED literature. Extra attempts should be made to use nonpharmacologic treatments such as verbal de escalation, which may work even in patients with dementia. If medications must be used as a final resort, second-generation agents are preferred over first generation agents. In elderly patients with delirium, the safest approach is to treat the underlying cause that is producing both the delirium and agitation. If medications are needed, second-generation agents and low-dose haloperidol (<3.0 milligrams/d) do not seem to worsen delirium. Avoid benzodiazepines and antihistamines.

References

1. Gülpek D., Kenar, N.İ A., Hocaoğlu Ç.,(2019). Ajite Hastaya Yaklaşım. Kıbrıs Türk Psikiyatri ve Psikoloji Dergisi, 1 (3): 206-11 doi:10.35365/ctjpp.19.1.27
2. Behnam M, Tillotson RD, Davis SM, Hobbs GR. Violence in the emergency department: a national survey of emergency medicine residents and attending physicians. *J Emerg Med*. 2011;40(5):565-579. doi:10.1016/j.jemermed.2009.11.007
3. Crilly J, Chaboyer W, Creedy D. Violence towards emergency department nurses by patients. *Accid Emerg Nurs*. 2004;12(2):67-73. doi:10.1016/j.aaen.2003.11.003
4. Boz B, Acar K, Ergin A, et al. Violence toward health care workers in emergency departments in Denizli, Turkey. *Adv Ther*. 2006;23(2):364-369. doi:10.1007/BF02850142
5. Richmond JS, Berlin JS, Fishkind AB, et al. Verbal De-escalation of the Agitated Patient: Consensus Statement of the American Association for Emergency Psychiatry Project BETA De-escalation Workgroup. *West J Emerg Med*. 2012;13(1):17-25. doi:10.5811/westjem. 2011.9.6864

ÇOCUK HASTADA SOLUNUM YETMEZLİĞİ

Uzm. Dr. Cihat Yel

Hatay Eğitim ve Araştırma Hastanesi

Solunum sıkıntısı nefes alıp vermede güçlük olarak tanımlanır. Pediatrik olgularda solunum sıkıntısı huzursuzluk, anksiyete ve korku ile kendini gösterir. Takipne, stridor, vizing, retraksiyonlar, burun kanadı solunumu, karın solunumunda artma ve inleme sık rastlanan bulgulardır.

Pediatrik acil olguların % 10, 2 yaş altı olguların % 20'si acil servise solunum sıkıntısı ile başvurur. Hastaneye yatırılan çocukların % 20'si ve yoğun bakıma alınan olguların % 30'u solunum sıkıntısı sebebiyle yatırılır. Yine hipoksi pediatrik arrest olgularının %80'ininin nedenidir. Tüm dünya da özellikle 5 yaş altı çocuklarda ölümün önde gelen nedenlerinden biridir. Pediatrik hastalarda solunum sıkıntısı; solunum yolları patolojileri, pulmoner nedenler ve ekstrapulmoner nedenlerle meydana gelebilir (Tablo 1).

Tablo 1. Çocuklarda solunum sıkıntısı nedenleri

Solunum yolu	Üst hava yolu	Krup, yabancı cisim aspirasyonu, trakeit, epiglotit, ağır tonsillit, apse (Peritonsiller veya Retrofaringeal), anaflaksi, anjioödem ve konjenital anomaliler (Pierre Robin Send, koanal atrezi, laringomalazi)
	Alt hava yolu	Pnömoni, bronşiolit, astım, yabancı cisim aspirasyonu
Pulmoner	Akciğer parankimi	Pnömoni, intertisyel hastalık, kistik fibroz, BPD, pulmoner emboli, travmatik kontüzyon
Ekstra pulmoner	Mekanik	Travma, spinal ve göğüs duvarı deformitesi
	Nöromüsküler	Konvülziyon, akut paralizi, anoksik ansefalopati, myopati, kafa travması, tümör, menenjit, intrakranial abse, opiat alımı
	Kardiyak	Kalp yetmezliği, şok, konjenital anomaliler
	Metabolik	Sepsis, hiperventilasyon, böbrek yetmezliği, karbonmonoksit zehirlenmesi, methemoglobinemi, Diabetik ketoasidoz, salisilat intoksikasyonu

Solunum sıkıntısı olan çocukta erken dönemde taşipne ve taşikardi saptanır. Bu hastalarda emmede azalma, iştahsızlık, solukluk , terleme, öksürük, burun kanadı solunumu vizing, stridor, retraksiyonlar, ajitasyon, anksiyete, yorgunluk ve mental durum değişikliği de görülebilir. Eğer çocukta siyanoz , bradipne, apne, bradikardi veya koma gelişmiş ise solunum sıkıntısı, solunum yetmezliğine dönümüştür.

Solunum yetmezliği Tip 1 (Hipoksemik) ve Tip 2 (Hiperkarbik); akut veya kronik olarak sınıflandırılabilir. Tip 1 (Hipoksemik) solunum sıkıntısında oksijen saturasyonu (<%90-94) ve parsiyel oksijen basıncı (pO_2) düşük iken, parsiyel karbondioksik (pCO_2) basıncı genellikle normal veya düşüktür. Eğer hasta O_2 ile düzeliyorsa: V/Q Uyumsuzluğu (Hava, yolu hastalıkları, interstisyel akciğer hastalıkları, pulmoner vasküler hastalıklar); düzelmiyorsa şant [Atelektazi, alveol içini dolduran patolojiler(transuda, eksuda, kan…), intrakardiyak şant ve akciğer içi vasküler şant) patolojileri düşünülmelidir.

Tip 2 solunum yetmezliğinde, çoğunlukla akciğer parankimini normaldir. Alveolar hipoventilasyona bağlı olarak gelişir. Alveol ve arteryel oksijen farkı artmaz, fakat alveolar CO2 ve pCO2 düzeyleri yüksektir. Solunum merkezinden çıkan uyarının azalması, nöromusküler hastalıklar, göğüs duvarı hastalıkları ve hava yolu hastalıkları düşünülmelidir.

Akut solunum sıkıntısı dakikalar ve saatler içinde gelişirken, kronik solunum sıkıntısı günler ve haftalar içinde gelişir. Tip 1 solunum yetmezliğinde, pO2 düzeyi düşük ve pCO2 düzeyi genellikle normal veya düşüktür.

Solunum yetmezliğinin belirlenmesinde noninvazif, en hızlı ve en ucuz yöntem pulse oksimetre olup, solunum sıkıntısında saturasyon 94'ten büyük, solunum yetmezliğinde 94'ten küçüktür. Bu yöntem ile hastaların %20-30'u

rahatlıkla tanınır. Solunum yetmezliği düşünülen bir çocukta ilk istenmesi gerek tetkik ise altın standart olarak kabul edilen arteryel kan gazıdır. Kan gazı klinsyene asit baz dengesi yanında oksijenizasyon ve ventilasyon ile ilgili bilgiler sağlar. Ayrıca günümüzde kullanılan kan gazı cihazlarında bir çok hematolojik ve biyokimyasal parametrede yer almaktadır. Sonraki tetkiklere etyolojiye yönelik olarak yapılmalıdır.

Solunum yetmezliğinde temel tedavi oksijen desteği üzerinedir. Maske veya nazal kanül ile başlayan oksijen desteği, yüksek akışlı oksijen desteği, Contnous Positive Airway Pressure (CPAP), Bilevel Positive Airway Pressure (BİBAP) ve mekanik ventilasyona kadar gidebilir. Verilen oksijenin fayda sağlayabilmesi için soluk yolu açıklığının olması zorunludur. Maske ve nazal kanül ile verilen oksijen desteği, lüzum halinde dışardan desteklenmelidir. Özellikle çocuk hastalarda oksijen verilirken nemlendirmeye dikkat edilmelidir. Hasta oksijen tedavisine başlandıktan sonra aralıklarla kontrol edilmelidir. Bu süreç zarfında etkene yönelik tetkik ve tedavi (yabancı cismin çıkartılması, inhaler adrenalin, antibiyoterapi, vs.) başlanmalıdır.

Hasta klinik olarak stabil, oksijen saturasyonu %90-94'ün üzerinde ve oksijen ihtiyacı azalmış ise oksijen desteği 10-15 dk süreyle kesilir. Eğer hastada klinik olarak bozulma olmuyorsa aynı şekilde izlenmeye devam edilerek 1. Saat sonunda hasta tekrar değerlendirilir. En az 24 saat bu şekilde takip edilen hastada oksijen saturasyonu %90-94'ün üzerinde kalırsa hasta taburcu edilebilir. Ancak pulse oksimetrenin pCO2 hakkında bilgi vermediği unutulmamalıdır.

Kaynaklar

1. Uysalol M, Besli GE. Solunum sıkıntısı ve yetmezliği olan hastanın tanınması ve yaklaşım. Duman M, editör. Çocukluk Çağı Solunum Acilleri. 1. Baskı. Ankara: Türkiye Klinikleri; 2021. p.1-9.
2. Cobb MJ. Just breathe: tips and highlights for managing pediatric respiratory distress and failure. Emergency Medicine Clinics. 2021;39(3):493-508.
3. Çağlar A, Duman M. Solunum sıkıntısında oksijen tedavi yöntemleri ve yüksek akım nazal oksijen tedavisi. Duman M, editör. Çocukluk Çağı Solunum Acilleri. 1. Baskı. Ankara: Türkiye Klinikleri; 2021. p.18-22.
4. Cengizlier R. Çocuklarda Solunum Yolu Hastalıkları. Klinik Tıp Pediatri Dergisi. 2016;8(6):33-42.

Clinical differences in cases with upper and lower gastrointestinal bleeding

Destan Berra Çılgınlar

Objective: In our study, we aimed to contribute to the literature by evaluating the differences between upper and lower gastrointestinal bleeding.

Material and method: Our study was carried out retrospectively with 430 patients hospitalized in Hatay Training and Research Hospital Emergency Department between 01.09.2021 and 31.08.2022 with the diagnosis of GI bleeding. Age, gender, symptoms and signs, vital parameters, drug and comorbidity history in the etiology of GI bleeding, blood values and some blood parameters, transfusion status and mortality levels of the cases with upper and lower GI bleeding were compared. In addition, the endoscopy results of the patients were examined. In our study, data analysis was done with SPSS version 22. In the representation of quantitative data, median, interquantile range (IQR) values; The number of cases (n) and percentil (%) were used in the display of qualitative data. The distribution of quantitative data was evaluated with the Kolmogrov Smirnov test. Mann Whitney U test was used in the analysis of non-parametric data. Chi-square test was used to compare qualitative data. $P<0.05$ was considered significant.

Results: In our study, 367 (85.3%) of the cases had upper GI bleeding. The median age of the patients was 69.5 (IQR:26) years, and the patients with lower GI bleeding were older ($p<0.05$). 60.9% of the cases were male and no difference was found between the groups in terms of gender ($p>0.05$). While the most common symptoms were melana and hematemesis in cases with upper GI bleeding, hematochezia was found in lower GI bleeding cases ($p<0.05$). There was no difference in vital parameters of the groups ($p>0.05$). While the history of previous bleeding and the use of nonsteroidal anti-inflammatory drugs were significantly higher in patients with upper GI bleeding, the frequency of anticoagulant bleeding was significantly higher in patients with lower GI bleeding ($p<0.05$). There was no difference between the groups in blood urea nitrogen, creatinine, white blood cell, hemoglobin, hematocrit, platelet and INR values ($p>0.05$). While there was no difference between the number of patients given erythrocyte suspension (ES) in both groups ($p>0.05$), the amount of ES given to patients with lower GI bleeding was found to be higher ($p<0.05$). There was no difference between the groups in terms of length of hospital stay and mortality ($p>0.05$). While 98% pathology was detected in the endoscopy in cases with upper GI bleeding, this rate was 81.6 in cases with lower GI bleeding.

Conclusion: Although some differences were found in upper and lower GI bleedings in our study, the important thing is to diagnose the patient and start treatment as soon as possible. Therefore, we believe that there is no significant clinical or laboratory difference between these two groups.

Keywords: Emergency medicine, gastrointestinal bleeding

Introduction

Gastrointestinal system bleeding (GIBC) is bleeding from any part of the digestive system; Bleeding up to the ligament of Treitz is called upper GI bleeding, and then lower GI bleeding.

The frequency of upper GI bleeding is approximately four times higher than that of lower GI bleeding. Most of the upper GICH bleedings (80-85%) stop spontaneously only with supportive treatment, however, 15-20% of them require interventional intervention(1). Determination of the bleeding focus in acute GI bleeding is important both in determining the treatment protocol and in terms of the interventional procedure. This is not always possible with anamnesis and examination.Some symptoms and signs are seen in both the upper and lower GIS.For ex-

ample, hematamesis is only seen in upper GI bleeding; melana and hematochezia can be seen in both upper and lower GI bleedings.This prevents the endoscopic intervention for the focus, and the patient is scanned with both upper and lower GI endoscopy (source).

In our study, we aimed to contribute to the literature by evaluating the differences between upper and lower gastrointestinal bleeding.

Material and Method

Our study was carried out retrospectively with 430 patients hospitalized in Hatay Training and Research Hospital Emergency Department between 01.09.2021 and 31.08.2022 with the diagnosis of GI bleeding.

Age, gender, symptoms and signs, vital parameters, drug and comorbidity history in the etiology of GI bleeding, blood values and some blood parameters, transfusion status and mortality levels of the cases with upper and lower GI bleeding were compared. In addition, the endoscopy results of the patients were examined.

For the patient group under 18 years old, Patients whose GI bleeding was excluded as a result of endoscopy, whose data cannot be accessed from the patient cards/automation system, cardiopulmonary resuscitation was done, Cases of arrest of unknown cause and patients with pathologies with other metabolic diseases leading to lactic acidosis were excluded.

In our study, data analysis was done with SPSS version 22. In the representation of quantitative data, median, interquantile range (IQR) values; The number of cases (n) and percentil (%) were used in the display of qualitative data. The distribution of quantitative data was evaluated with the Kolmogrov Smirnov test. Mann Whitney U test was used in the analysis of non-parametric data. Chi-square test was used to compare qualitative data. $P<0.05$ was considered significant.

Results

In or study, 367 (85.3%) of the cases had upper GI bleeding. The median age of the patients was 69.5 (IQR:26) years, and the patients with lower GI bleeding were older ($p<0.05$). 60.9% of the cases were male and no difference was found between the groups in terms of gender ($p>0.05$). While the most common symptoms were melana and hematemesis in cases with upper GI bleeding, hematochezia was found in lower GI bleeding cases ($p<0.05$). The most common comorbidities are hypertension (HT) and diabetes mellitus (DM); GI bleeding history was significantly higher in cases with upper GI bleeding ($p<0,05$). There was no difference in vital parameters of the groups ($p>0.05$). While the history of previous bleeding and the use of nonsteroidal anti-inflammatory drugs were significantly higher in patients with upper GI bleeding, the frequency of anticoagulant bleeding was significantly higher in patients with lower GI bleeding ($p<0.05$). There was no difference between the groups in blood urea nitrogen, creatinine, white blood cell (WBC), hemoglobin (HB), hematocrit (HTC), platelet (PLT) and INR values ($p>0.05$). While there was no difference between the number of patients given erythrocyte suspension (ES) in both groups ($p>0.05$), the amount of ES given to patients with lower GI bleeding was found to be higher ($p<0.05$). There was no difference between the groups in terms of length of hospital stay and mortality ($p>0.05$) (Tablo 1).

Table 1. *Relationship between mortality frequency and demographic and clinical characteristics*

		Gİ Blending			p
		Total (n:430)	Up (n:367)	Lower (n:63) n (%)	
Age, Median (IQR)		69,5 (26)	68 (26)	72 (18)	0.004
Gender	Male, n(%)	168 (%39.1)	138 (%37.6)	30 (%47.6)	0.132
	Female, n(%)	262 (%60.9)	229 (%62.4)	33 (%52.4)	
Symptom,	Melana, n(%)	210 (%48.8)	208 (%56.7)	2 (%3.2)	<0.001
	Hematemesis, n(%)	202 (%47)	202 (%55)	0 (%0)	<0.001
	Hematochezia, n(%)	84 (%19.5)	25 (%6.8)	59 (%93.7)	<0.001
	Syncope, n(%)	52 (%12.1)	47 (%12.8)	5 (%7.9)	0.273
	Dizziness, n(%)	48 (%11.2)	47 (%12.8)	1 (%1.6)	0.009
	Chest Pain, n(%)	2 (%0.5)	2 (%0.5)	0 (%0)	0.557
	Nefes darlığı, n(%)	14 (%3.3)	13 (%3.5)	1 (%1.6)	0.419
Vital parameter	SBP (mmHg), Median (IQR)	112 (30)	112 (30)	120(40)	0.051
	DBP (mmHg), Median (IQR)	68 (25)	66 (25)	70 (22)	0.204
	Pulse (rate//min) Median (IQR)	90 (25)	90 (23)	88 (25)	0.068
Comorbitiy	Hypertension, n(%)	187 (43.5)	154 (42)	33 (52.4)	0.123
	Diabetes mellitus, n(%)	129 (30)	111 (30.2)	18 (28.6)	0.789
	Heart Diases, n(%)	126 (%29.3)	101 (%27.5)	25 (%39.7)	0.050
	History of Gİ Blending, n(%)	115 (%26.7)	105 (%28.6)	10 (%15.9)	0.035
	COPD, n(%)	92 (21.4)	82 (22.3)	10 (5.9)	0.247
	Malignancy, n(%)	79 (%18.4)	66 (%18)	13 (%20.6)	0.616
	Liver Diases, n(%)	65 (%15.1)	59 (%16.1)	6 (%9.5)	0.180
	Other, n(%)	117 (27.2)	102 (27.8)	15 (23.8)	0.512
History of Drug use	Anti-aggregate, n(%)	101 (%23.5)	86 (%23.4)	15 (%23.8)	0.948
	Anti- *coagulant*, n(%)	45 (%10.5)	33 (%9)	12 (%19)	0.016
	NSAİD, n(%)	93 (%21.6)	89 (%24.3)	4 (%6.3)	0.001
RT	Normal stool, n(%)	90 (%20.9)	90 (%24.5)	0 (%0)	<0.001
	Melena, n(%)	237 (%55.1)	235 (%64)	2 (%3.2)	
	Hematochezia, n(%)	87 (%20.2)	29 (%7.9)	58 (%92.1)	
	Empety ampulla, n(%)	16 (%3.7)	13 (%3.5)	3 (%4.8)	
Blood parameter	*Creatinine (mg/dl)*, Median (IQR)	0.93 (0.6)	0.93 (0.6)	0.99 (0.7)	0.068
	Urea *(mg/dl)*, Median (IQR)	72.8 (59.9)	77 (60.8)	55.6 (43.9)	0.522
	WBC (x10³/mm³), Median (IQR)	10.6 (5.9)	10.7 (5.9)	9.7 (5.1)	0.865
	Hb (g/dl), Median (IQR)	8.4 (3.4)	8.3 (3.4)	8.8 (3.5)	0.124
	Hct (%), Median (IQR)	25.2 (9.6)	24.9 (9.8)	26.1 (9.8)	0.112
	Platelet (x10³/mm³), Median (IQR)	236 (134)	229 (132)	254 (158)	0.094
	INR, Median (IQR)	1.2 (0.3)	1.2 (0.3)	1.2 (0.4)	0.730
Es transfusion, n(%)		330 (%76.7)	285 (%77.7)	45 (%71.4)	0.280
Es quatity, Median (IQR)		4 (5)	4 (5)	5 (5)	0.042
Length of stay, Median (IQR)		5 (6)	5 (6)	6 (9)	0.423
Mortality	Exitus, n(%)	20 (%4.7)	15 (%4.1)	5 (%7.9)	0.180
	Survival, n(%)	410 (%95.3)	352 (%95.9)	58 (%92.1)	

SBP: Systolic blood pressure DBP: Diastolic blood pressure COPD: Chronic obstructive pulmonary disease, NSA-İD: Nonsteroidal antiinflammatory drugs, ES: Erythrocyte suspension

While 98% pathology was detected in the endoscopy in cases with upper GI bleeding, this rate was 81.6 in cases with lower GI bleeding. The most common lesion detected in upper GI endoscopy was gastritis, while diverticulum was found in the lower GI blending (Table 2).

Table 2. *Endoscopic findings*

	Up GI Blendig (n:389) n(%)	Lower Gİ Blending (n:71) n(%)
Ulcer in endoscopy	201 (%50,6)	
gastritis in endoscopy	235 (%59,2)	
Varicose veins in endoscopy	56 (%14,1)	
Mallory Weiss in endoscopy	9 (%2,3)	
Mass in endoscopy	47 (%11,8)	
Erosion in Endoscopy	62 (%15,6)	
Esophagitis in Endoscopy	48 (%12,1)	
Mass in colonoscopy		14 (%16,1)
Diverticulum in colonoscopy		19 (%21,8)
Polyp in colonoscopy		16 (%18,4)
Ulcer in colonoscopy		16 (%18,4)
Angiodysplasia in colonoscopy		3 (%3,4)

Discussion

Many studies have shown that patients with GI bleeding are more common in the elderly and male population(1-4) In our study, consistent with the literature, it was found that GI bleeding was common in men and in the elderly. In addition, the median age was found to be significantly higher in patients with lower GI bleeding. We are of the opinion that GI bleeding is more common in older ages due to the increase in the catabolic process with increasing age, the increase in comorbid diseases and the frequency of drugs used, and the deterioration of gastric mucosa and vascular structures. We are of the opinion that the male population has more frequent GI bleeding due to the fact that the male population leads a more irregular life. The frequency of lower GI bleeding may be increased due to the increased incidence of malignancy and angiodysplasia in advanced ages.

Melena and hematemesis are the most common symptoms in patients with upper GI bleeding; In cases with lower GI bleeding, hematochezia has been reported. (1, 2, 5). In our study, in accordance with the literature, the most common findings in cases with upper GI bleeding were melana, hematemesis, and dizziness; lower GI bleeding and hematochezia in the cases

Hematemesis is not seen in lower GI bleeding and bleeding is seen as hematochezia because the bleeding is distal, We believe that dizziness develops more frequently because melana is seen even in mild bleeding from the upper GIS and because upper GI bleedings generally have a more acute course. As a matter of fact, the fact that systolic blood pressure is lower in patients presenting with upper GI bleeding, albeit statistically insignificant, supports our thesis.

In cases with GI bleeding, blood pressure and pulse rate are two important parameters that show the hemodynamic status of the patient.(5). In our study, no significant difference was found between the vitals of upper and lower bleeding. We believe that this situation is related to the amount of bleeding rather than the bleeding focus of vital parameters.

In many studies, it has been stated that some comorbid diseases and drugs increase the frequency of GI bleeding. In these studies, it was stated that the most common comorbid disease was hypertension and the most commonly used drugs [anticoagulant, antiaggregant and nonsteroidal anti-inflammatory (NSAI)] (6-8). In a study,

upper and lower GI bleedings were compared and cirrhosis was observed in cases with upper GI bleeding, The incidence of malignancy was found to be high in cases with lower GI bleeding (9). In our study, in accordance with the literature, the most common comorbidity was hypertension and the most commonly used drug was NSAID. Patients with a previous history of GI bleeding, the frequency of upper GI bleeding in patients using NSAIDs, and the frequency of lower GI bleeding in patients using anticoagulants were found to be high. Due to the elderly population of our patient population, HT is common in the community And again, we believe that NSAIDs are commonly used to relieve muscle and joint pain, which is common in these patients. We believe that patients who applied with upper GI bleeding did not change their lifestyle (smoking, alcohol, eating-drinking, etc.) so they applied again with upper GI bleeding. NSAID group drugs inhibit prostaglandin E2 synthesis and decrease blood flow and mucus secretion, increase bile acids, We believe that it often causes upper GI bleeding due to the epithelial tight junctions and the effect of bacterial components on the submucosal space. We think that in cases using anticoagulants, it causes bleeding in any part of the intestinal wall and lower GI bleeding is more common because the lower GIS segment is long.

Tomizawa et al. in their study, in cases with upper GI bleeding, It was determined that HB decreased, BUN was higher and wbc, plt and creatinine values did not change compared to lower GI bleeding. (10). Ziabari et al. HB and thrombocyte in patients with upper GI bleeding in their study; BUN and creatinine were found to be lower in patients with lower GI bleeding.

In our study, no difference was found between the groups in terms of BUN, creatinine, WBC, HB, HTC, PLT and INRConsistent with the literature, although HB, HTC and PLT values were low and BUN values were high in cases with upper GI bleeding, no significant difference was found between the values depending on the possible number of patients. In a study, it was stated that the most common lesion was gastric ulcer in cases with upper GI bleeding, and malignancies took the first place in lower GI cases(10). Erkus et al. stated in his study that the most common diagnosis seen in cases with upper GI bleeding was ulcer. Celebi et al. evaluated the results of lower GIS endoscopy in their study and found that the most common pathology was a mass. In our study, in accordance with the literature, the most common upper GI pathology was gastritis and ulcer; lower GIS pathology was diverticulum and mass.

The rate of blood donation to patients in cases with GI bleeding was expressed as 69-82%. Although the average amount of blood donation is expressed as 2 units, it may vary according to the patient's clinic and blood values. (12, 13). In our study, 76.7% of the patients were given ES and although the number of people given ES was similar between the groups, the amount given was found to be significantly higher in cases with lower GI bleeding. Large bowel surface in the lower GI tract during endoscopic intervention in cases with lower GI bleeding and In some cases, even if the focus is seen, bleeding may continue for longer because it cannot be intervened endoscopically. This may have increased the need for ES in patients with lower GI bleeding. In the studies, it has been stated that the hospitalization period is 4-6 days and the mortality rate is 5-13% in cases with GI bleeding, and this rate may increase. (1, 5, 12-14). Mortality rate can be up to 40% in hemodynamically unstable patients. (15).

In our study, no significant difference was found between the length of hospital stay and mortality rates of the groups. Intervention of patients presenting with GI bleeding by undergoing endoscopy as soon as possible, Spontaneous cessation of bleeding in most cases, close comorbidities for both groups and Duration of hospitalization between groups in relation to the close number of patients who died due to massive bleeding and we think that there is no difference in terms of mortality.

References

1. Jaka H, Koy M, Liwa A, Kabangila R, Mirambo M, Scheppach W, et al. A fibreoptic endoscopic study of upper gastrointestinal bleeding at Bugando Medical Centre in northwestern Tanzania: a retrospective review of 240 cases. BMC research notes. 2012;5:200.

2. Shrestha MP, Borgstrom M, Trowers EA. Elevated lactate level predicts intensive care unit admissions, endoscopies and transfusions in patients with acute gastrointestinal bleeding. Clinical and experimental gastroenterology. 2018;11:185-92.

3. Lee SH, Min YW, Bae J, Lee H, Min BH, Lee JH, et al. Lactate Parameters Predict Clinical Outcomes in Patients with Nonvariceal Upper Gastrointestinal Bleeding. Journal of Korean medical science. 2017;32(11):1820-7.

4. Wada T, Hagiwara A, Uemura T, Yahagi N, Kimura A. Early lactate clearance for predicting active bleeding in critically ill patients with acute upper gastrointestinal bleeding: a retrospective study. Intern Emerg Med. 2016;11(5):737-43.

5. Konyar Z, Guneysel O, Dogan FS, Gokdag E. Modification of Glasgow-Blatchford scoring with lactate in predicting the mortality of patients with upper gastrointestinal bleeding in emergency department. Hong Kong Journal of Emergency Medicine. 2019;26(1):31-8.

6. Siddique SM, Mehta SJ, Lewis JD, Neuman MD, Werner RM. Rates of hospital readmission among Medicare beneficiaries with gastrointestinal bleeding vary based on etiology and comorbidities. Clinical Gastroenterology and Hepatology. 2019;17(1):90-7. e3.

7. Gölgeli H, Ecirli Ş, Kutlu O, Başer H, Karasoy D. Evaluation of the patients that followed up for upper gastrointestinal system bleeding. Dicle Med J. 2014;41:495-501.

8. Baradaran F, Norouzi A, Tavassoli S, Baradaran A, Roshandel G. Factors associated with outcome in patients with acute upper gastrointestinal bleeding in a tertiary referral center in Northern Iran. Middle East journal of digestive diseases. 2016;8(3):201.

9. Ziabari SMZ, Rimaz S, Shafaghi A, Shakiba M, Pourkazemi Z, Karimzadeh E, et al. Blood urea nitrogen to creatinine ratio in differentiation of upper and lower gastrointestinal bleedings; a diagnostic accuracy study. Archives of academic emergency medicine. 2019;7(1).

10. Tomizawa M, Shinozaki F, Hasegawa R, Shirai Y, Motoyoshi Y, Sugiyama T, et al. Laboratory test variables useful for distinguishing upper from lower gastrointestinal bleeding. World journal of gastroenterology: WJG. 2015;21(20):6246.

11. Erkuş E, Helvacı A, Bodur Ö, Özsoy N. Üst Gastrointestinal Sistem Kanamalı 99 Olgunun İncelenmesi. Okmeydanı Eğit Araşt Hastan Tıp Derg. 2013;29(2):76-80.

12. Karaman K, Oğuzlar FÇ, Hatip AY, Coşkun G, Armağan HH, Oskay A. Effects of Seasonal Variation on Upper Gastrointestinal System Bleeding in Emergency Department. Süleyman Demirel Üniversitesi Sağlık Bilimleri Dergisi. 2019;10(1):44-7.

13. Sağiroğlu MF, Çalapkulu M, Gülten M. Gastroenteroloji kliniğine başvuran akut üst gastrointestinal sistem kanamalı hastaların retrospektif değerlendirilmesi. Uludağ Üniversitesi Tıp Fakültesi Dergisi. 2020;46(3):343-7.

14. Cander B, Ertekin B, Hasan K, Mehmet G, Dündar D, Koçak S, et al. Acil servise gastrointestinal kanama ile başvuran hastalarda hastane yatış süresini etkileyen faktörler. Fırat Tıp Dergisi. 2011;16(2):51-4.

15. Walsh RM, Anain P, Geisinger M, Vogt D, Mayes J, Grundfest-Broniatowski S, et al. Role of angiography and embolization for massive gastroduodenal hemorrhage. Journal of Gastrointestinal Surgery. 1999;3(1):61-6.

Differences between Civilian and Military Injuries Examples from Northern Syria

Mehmet Elidris

Cobanbey Hospital Department of General Surgery/Syria

Civil war surgery civilian health institutions (Ministry of Health, missionaries or private hospitals) or by the ICRC or other humanitarian organizations. The purpose of war surgery for the ICRC; protect the injured and sick, adequate care to help them with their honorable work by enabling them to reach preserve life and limbs, minimize disability and amputate helping the injured. The ICRC is helping to restore infrastructure alongside victims of war. to assist local medical health personnel and post-war necessary support the health system by restarting human resources functions therefore, at least basic health care to the civilian population. provides care. ICRC assistance includes: construction of health centers or renovation, water and hygiene work, food support for patients and staff, equipment, spares and basic financial means (salary). Into these training programs for nurses and doctors may also be included. In addition, the ICRC It can also establish its own private hospitals supported by local staff.

Civil-military cooperation

Armed forces have a special military mission on the battlefield. The primary task of the medical division of the armed forces; to support his soldiers during this special mission. Military units may also have tasks such as aiding and restructuring like civilian organizations, but in military construction, medical criteria often rank second to the tactical and strategic requirements of the military and political needs. The ICRC is an impartial, independent and fully humanitarian organization. It is strictly committed to international humanitarian law and its purpose is to protect and support the wounded on all sides of the war.

Any kind of cooperation with armies on the battlefield helps to perceive this neutrality correctly. For the ICRC, impartiality and independence – like other organizations – make sense for these jobs when they come together. The ICRC insists on maintaining its independence, in humanitarian affairs the issue of independence should be separated from the aid and reconstruction of armies on the battlefield. Many humanitarian organizations share the same thinking and approach.

Restrictions: Security

Due to security restrictions, the ICRC has little or no control over patient evacuation. In many countries, the wounded are transported by private vehicles; without taxis, donkeys, oxen or any of these. In some places the ICRC has set up first aid posts or is assisting the national Red Crescent or Red Cross with this. To give an unusual example; It is a medical evacuation for the transfer of the war-wounded in southern Sudan by the ICRC and the United Nations Sudan Lifeline, with 16 years of experience with airplanes. With this system, more than 30,000 patients and injured have been transferred to the ICRC hospital in northern Kenya. Although the planes were usable, there was a delay in evacuation for logistical matters - 1 to 3 weeks. Armed forces to protect their health centers from the "deadly chaos of war"

While deploying the necessary forces, the ICRC uses the insignia of the Red Cross to negotiate with the offensive forces for its own physical protection. The ICRC has no weapons to defend itself and is dependent on local authorities to which local hospitals are affiliated. The ICRC relies on the boundaries set for it by international humanitarian law, the discipline of the belligerent powers, and its negotiation ability. Other humanitarian organizations face similar constraints on the battlefield.

Restrictions: Logistics

The hostile environment brings more risks than security risks. For hospitals and headquarters, logistical problems such as material supply and infrastructure maintenance may be encountered due to remote areas that can be reached by dangerous roads and bad climatic conditions. Military power often has means of transport and material supply that civilian institutes lack. While the armed forces have their own logistical limits, they also respond to varying-size requests from the ministry of health, non-governmental organizations, and even the ICRC.

Restrictions: Hospital equipment

These restrictions also affect hospital equipment. Military forces have to suspend restrictions because they also have to deliver military equipment and ammunition. For the ICRC, equipment restriction means the installation of appropriate technology, the performance of maintenance tasks, repairs, and making empty spaces available for equipment. This is particularly important when training local doctors when working in remote areas in poor countries. In this context, the aim is: after the war is over, the ICRC is to avoid the formation of technological dependence on local workers when they have to leave the hospital and the country. Given this latter situation, the ICRC has developed some criteria for introducing new technologies in its list of drugs and equipment for hospital programs.

The standard list contains essential, limited but indispensable medical and non-medical supplies. Each item in the standard list should be available through a central warehouse or a trusted material supplier. Standardization provides a simple business schema, including how resources should work with maximum impact.

It stimulates continuity in maintenance, helps to facilitate employee training, and facilitates the participation of new and inexperienced employees in the system. The ICRC and the International Federation of Red Cross and Red Crescent Societies have established a previously agreed Emergency Materials Catalogue6, which forms the basis of aid programmes. ICRC experience has shown that; It is possible to perform a good surgery with simple technologies such as a simple X-ray device, electronic monitor and pulse oximetry that can be used after surgery. Setting up an ICRC laboratory is very simple, it does not have bacterial culture and blood components.

Restrictions: Blood transfusion

In some countries it is often difficult to obtain blood for transfusion due to religious beliefs and restrictions. Due to the steady increase in HIV infection all over the world, the indication for transfusion is strictly restricted and testing methods should be adequate. In some parts of the world, blood transfusions should be avoided altogether. The use of blood should be limited to the vital needs of the injured with a high probability of survival, following the triage plan. As in hospitals around the world, the ICRC uses whole blood transfusions, provided it is as fresh as possible and taken from relatives.

Restrictions: Geography and Climate

Geographical structure may be important for the disease. In addition to malnutrition, the injured can also be affected by other diseases such as tuberculosis, malaria, typhoid. Postoperative fever is common in countries with chronic malaria spread. Therefore, the surgeon should try to learn the basic information about the diseases specific to that region and their treatment. Regional health workers generally have more information about their own country than the health workers who come to help. These negative situations may pose a danger to volunteer workers.

Restrictions: Culture Shock

Cultural restrictions are another issue and can add fear to medical work on the battlefield. In some communities, amputations and laparotomy can only be done with the consent of the patient's family. The final decision should be left to the patient's family after the benefits have been clearly discussed. These procedures, which include

respect for regional culture and social behavior and norms, are mandatory procedures to be followed, although they are considered as limitations and limitations by the surgical and care team. It is a particularly difficult situation for medical personnel to see a young casualty who cannot be operated and dies because of not being able to obtain permission from his family. In many societies, it is common for a relative to stay with a hospitalized patient to provide psychological support and to perform care duties such as cleaning and feeding. This tradition must be accepted.

Restrictions: Human Factor

This phrase, taken from the Swedish army's handbook of combat surgery, describes the situation of a new military surgeon, moreover, this is often the case in today's conflicts when a civilian surgeon first encounters a casualty in a gunfight situation. New surgeons from developed countries' Red Crescent societies or National Red Cross organizations face the same problems; The constantly changing battlefield with new restrictions is a surprise. One must plan for alternatives and be open-minded to new options.

If war surgery is considered as an "epidemic trauma" management step by step, this is not always the case in civilian conditions. Not like a military hospital, the ICRC hospitals' responsibility is to provide casualty care at all levels. It is often a single center acting as a first aid hospital, base hospital or reference centre. The multi-surgeon military approach to stepwise therapy provides a more traditional approach to the patient's entire surgical history than single-surgeon therapy. However, only a few surgeons take care of a single patient, due to the often short-term (average of 3 months) assignment of ICRC surgeons. Continuity of care is essential. Modern military forces must be able to advance technical capabilities by deploying surgical teams close to the battlefield. Aim; To ensure the survival of the injured, to perform damage control surgery as soon as possible after the injury, thereby reducing the number of deaths. The ICRC also deployed its surgical teams to the battlefields for different purposes in Somalia in 1992, in South Sudan in 2000, and in Darfur in 2005. Purposes; to protect civilians and the wounded who had not previously received surgical care and were not likely to fight again. The core principles of the ICRC as a neutral and impartial humanitarian actor; It is based on the performance of the medical movement and the preservation of access to surgical care. Surgeon, standard

It should be able to adapt to the surgical conditions in the battlefield, where there is a sterile environment and materials washed with soap and water, which are not on the list, and which replace the surgical instruments needed. Moreover, the living conditions on the battlefield, the camp in the bushes

It is similar to the field and everyone in the team (Four people; surgeon, anesthesiologist, and two nurses) participate in the preparation of the meal and accompany each other. The following features are required for the staff working in the ICRC hospital or the staff working in the field surgery hospital:

- Professionalism;
- Good judgment and foresight;
- Easy adaptability.

In some countries, some local and improvised materials help the surgeon do his job more effectively and cheaply; for example, papaya paste for burns and sterilized banana leaves for non-stick dressing. Volunteer staff should demonstrate their capacity to learn important useful tips and their adaptation to difficult conditions. War surgery is a problem. Medical personnel should prepare themselves physically and psychologically to witness disappointment, prolonged fatigue, inhuman treatment of human beings.

References

1. Giannou C., & Baldan M. (2009). War surgery. Geneva: International Committee of the Red Cross.
2. Franke Axel, et al. "Terrorist incidents: strategic treatment objectives, tactical diagnostic procedures and the estimated need of blood and clotting products." European journal of trauma and emergency surgery 46.4 (2020): 695-707.
3. Federal Askeri Departman Savaş Cerrahisi Komisyonu. Chirurgie de guerre (Aide-memoire 59.24 f) [War surgery (a primer)]. Bern Swiss Army, 1970 ve 1986
4. Butler F. Tactical combat casualty care: combining good medicine with good tactics. J Trauma 2003;54(Suppl.):S 2-3

Dünyada Acil Tıp Dergileri

Dr. Öğr. Üyesi Taner ŞAHİN

Sağlık Bilimleri Üniversitesi Kayseri Tıp Fakültesi Acil Tıp Anabilim Dalı

Giriş: Bilimsel makale yazmaya karar verdikten sonra EPK(TUEK), etik kurul, hasta/veri toplama, istatiksel analiz, literatür taraması, makale yazımı ve İngilizce çevirisi bitti. Peki şimdi ne yapmalıyım? Hangi dergiye çalışmayı yüklemeliyim?

Akademik çalışmanın en önemli aşaması dergi seçimidir. Acil tıp ile ilgili dünya genelinde ve ülkemizde dergiler mevcuttur. Önemli olan dergilerin ilgi alanına, derginin endeks grubuna (SCI/SCIE, eSCI, alan endeksi), etki faktörüne(impakt faktör), çeyreklik(Q) değerine, H-indeksine, I-indeksine, hibrid yada açık erişimde olup olmadığına ve ücret talep edip etmediğine dikkat etmektir.

Impact Factor(IF): Bir akademik derginin o dergide yayınlanan güncel makalelere bulunulan ortalama atıf sayısını yansıtan bir ölçütüdür. Sıklıkla bir derginin kendi alanındaki önemi açısından görece bir gösterge olarak kullanılır. Web of Science SCI'ye giren dergiler için sadece etki değeri vardır. Yani dergi SCI'de indeksleniyorsa ancak etki değerine sahip olabilir. Aksi halde etki değerinin olmasından söz edilemez.

Çeyreklik-Quartile(Q): Bir derginin Q değeri kısaca, derginin bulunduğu alandaki dergi sayısının dörde bölünmesiyle ortaya çıkan %25'lik dilimleri gösterir. İlk %25'lik dilim Q1 değerini alırken, son %25'lik dilim Q4 değerini alır. Dolayısıyla ikinci %25'lik dilim Q2, üçüncü %25'lik dilim ise Q3 değerini alır.

H indeksi: Bir bilim insanının yayınlarının hem üretkenliğini hem de alıntı etkisini ölçen uluslararası geçerliliği olan bir metriktir. Bir nevi akademisyenin kalitesini gösterir. Örneğin; H indeksi 10 olan bir akademisyenin en az 10 makalesi 10 veya üstü atıf almış demektir.

i10 indeksi: Google Scholar tarafından "geliştirilmiş" çok basit bir sıralama yöntemidir. Bir yazarın en az 10 adet atıf almış makale sayısını gösteriyor.

Clarivate Web of Science'a göre dergiler SCI, AHCI, SSCI, SCIE ve eSCI olarak sınıflandırılmaktadır.

SCI(Science Citation Index): Fen Bilimleri alanlarında yayın yapan dergilerin tarandığı indekstir (fizik, biyoloji, bilgisayar, malzeme bilimi gibi). ISI-web of science tarafından kullanılan indekslerden en önemlisi olup multidisipliner bir indekstir. Akademik yükseltmelerde öncelikli olarak yayın olması gereken indekstir.

SCIE (Science Citation Index Expanded): SCIE dergiler 1900 yılından itibaren yayımlanan 150 farklı disiplindeki 8500'ün üzerinde dikkate değer ve önemli dergiyi içermektedir. SCI ise bu kadar kapsamlı değildir. SCIE dergilerin içinde SCI dergiler yer almaktadır. Ancak SCI dergiler SCIE dergilerin tamamını kapsamaz.

SSCI (Social Sciences Citation Index): Sosyal bilimler alanlarındaki dergilerin tarandığı indekstir (siyaset, hukuk, felsefe gibi.

AHCI (Arts and Humanities Citation Index): Sanat ve insan bilimleri alanlarındaki dergilerin tarandığı indekstir (mimarlık, müzik, dans, tarih gibi).

eSCI(Emerging Sources Citation Index): Bu indeks; SCI, SCIE, SSCI ve AHCI gibi daha itibarlı indekslerin bir alt basamağı veya bir gömlek altı olarak tanımlanabilir. ESCI'ye dâhil olan dergilerin sayısı daha fazla ve dergilerin bu indekse girmesi daha kolaydır.

Scopus indeks: Bilimsel ve araştırma makalelerini görünür kılan bir bibliyografik veri tabanıdır. Küresel ölçekte ünlü ve saygın yayıncıların milyonlarca bilimsel içeriğini derler ve araştırmacılara sunar.

Index Copernicus: Uluslararası alan indeksi olarak kabul edilmektedir.

Dergi Seçimi Nasıl Yapılmalıdır?

1. PubMed, SCOPUS, EMBASE, Cochrane, Google Scholar gibi veri tabanlarında konuyu aratarak daha önce yayınlamış dergilere göndermek,
2. Platformların sunduğu «journal find» ile özet, konu başlığı ve anahtar kelimelerle aratarak sunulan dergilerden seçmek,
3. Editörünü hocalarımızın ya da bizim tanıdığımız dergilerden seçmek gibi yöntemler kullanılabilir.

Journal Finder site örnekleri:

1. Elsevier- find journal
2. Springer- journal suggester
3. Wiley-journal finder
4. Taylor&Francis-journal suggester
5. Journal Guide
6. Jane

Open access (açık erişim) ve APC (makale işletim ücreti):

Akademik makalelerin bilimsel bir dergide yayınlanmak üzere kabul edilmiş makalenin yayına hazırlanması için gerekli işlem ücretinin makalenin yazarı tarafından ödendiği bir yöntemidir.

Talep edilen bu ücrete Makale İşlem Ücreti (APC=Article processing charge/fee) denir. APC ödemesinin sonucunda makale Altın Yol (Gold Open Access) modeli ile Açık Erişim olur. Yani yayıncının web sitesinde yayınlanan makaleye abonelik gerektirmeden internet ortamında herkese açık olur. Tüm hibrit dergiler (Melez/Hybrid Model: Yani dergideki makalelerin bir kısmını açık erişimli olarak tüm dünyaya açıkken bir kısmı ise abonelikle erişilebildiği model) ve bazı açık erişim dergilerde açık erişimli makale yayınlama için APC ödemesi zorunludur.

Her Open Access dergi kötü niyetli midir?

Açık erişimli dergicilik son yıllarda giderek popüler hal almıştır. Bir açık erişimli dergiye iyi veya kötü denmesi mümkün değildir. Çünkü hem abonelik bazlı dergilerde hem de açık erişimli dergilerde uygunsuz editöryal kurul, kör olmayan değerlendirme, yan tutma gibi özelliklere rastlanması mümkündür. Bununla birlikte çoğu abonelik bazlı derginin open access opsiyonu vardır (örn. The Lancet, Ann Emerg Med, Acad Emerg Med, Am J Emerg Med gibi). Hatta büyük grupların sadece open access olarak çıkardıkları dergiler de mevcuttur (JAMA Open, BMJ Open..). Bir yazar veya yazar grubu bilimsel bulgularının engelsiz şekilde halkla veya klinisyenlerle buluşmasını isteyebilir, bu nedenle yazısını ücretini ödeyerek "açık erişimli" hale getirebilir.

Şüpheli/korsan/yağmacı/istismarcı (predatory) dergi ne demek?

Dergi seçiminde en önemli parametrelerden biri de hedeflenen derginin taklitçi, para isteyen, korsan sayılabilen dergi listesinde olup olmadığının belirlenmesidir. Bu dergilerin net bir listesi yoktur. İlk olarak 1996 yılında Bell's list adıyla yayınlanan listenin güncel haline https://beallslist.net/ sitesinden ulaşılabilir.

Yağmacı ya da korsan bir dergiden nasıl şüphelenilir?

Editörler kurulu ile ilgili doğru olmayan bilgiler yer alabilmektedir. Genellikle uydurma etki faktörü ile kabul görmemiş indekslerce tarandığı ifade edilmekle birlikte bazıları bilinen indekslere girebilmektedir. Dergi, kitap ve etkinliğin ismi birden fazla bilim alanını kapsayan jenerik bir isim olabilmekte ve/veya "International" "European", "Science" gibi tanıdık dergi izlenimi veren sözcükleri içerebilmektedir. Bir sayıda, aynı yazarın birden fazla

makalesi ve olağandan çok sayıda makale yer alabilmektedir. Dergi ve kitaplarda yayımlanan makalelerde, ciddi bir hakem denetiminden geçmediklerinin delili olabilecek, bilgi, imla ve ifade hataları yer alabilmektedir. Dergiye makale gönderilmesini sağlamak için rahatsız edici "ticari" taktikler uygulanmaktadır.

Üniversiteler Arası Kurul (ÜAK) 2022 Duyurusu:

Yağmacı/şaibeli sayılmayan dergiler:

- WEB of Science'de Q1, Q2, Q3 sınıfında yer alan dergiler (Editöryal ve/veya basım süreçlerinde ücret talep eden veya etmeyen),
- WEB of Science'de Q4 sınıfında yer alıp editöryal (editorial processing charge) ve/veya basım sürecinde (article processing charge) ücret talep etmeyen dergiler,
- WEB of Science'de Q4 sınıfında yer alıp editöryal ve/veya basım süreçlerinde ücret talep etmekle birlikte sadece ilgili bilim alanı mensuplarının üye olabildiği bir branş derneğinin, üniversitenin, enstitünün veya bilimsel bir kurumun yayın organı olan ve 2010 yılı öncesinden itibaren basılmakta/yayınlanmakta olup abone usulü olarak çalışan ulusal/uluslararası dergiler,
- Yağmacı/Şaibeli dergiler: Yukarıdaki kriterlere uymayan Q4 dergiler

Yükseköğretim Kurulu'nun 07.03.2019 tarihli Genel Kurulunda alınan karar gereği, 07.03.2019 sonrası yayımlanmış makaleler için geçerli olmak üzere; makale kabulünden sonra yayımlanması için yazardan ücret veya ek ücret talep eden dergiler (yağmacı / şaibeli dergiler), bu ilişkinin bir çıkar çatışması içermesi nedeniyle doçentlik başvurularında (beyannamede) kullanılamaz.

Bu karar Doçentlik Yönetmeliği'nin ilgili maddesi uyarınca 2022 Mart başvuru döneminden başlamak üzere uygulanacaktır.

Uluslararası Acil Tıp Dergileri çeyrekliklerine göre;

Q endeksine göre SJR-Scimago taramasında 94 acil tıp dergisi listelenmektedir. Bunların; 22 tanesi Q1, 22 tanesi Q2, 22 tanesi Q3, 28 tanesi Q4 ve Web of Science ta ESCI kategorisinde 21 adet acil dergisi listelenmektedir. Doçentlik başvurunda https://jcr.clarivate.com/JCRJournalHomeAction.action sitesindeki endeks bilgisi kullanılmalıdır.

Scimago Journal&Rank(SJR)' ye göre 2021'de Q1 Sınıfında Yer Alan Acil Tıp Dergileri(ilk 10):

1. Resuscitation
2. World Journal of Emergency Surgery
3. Academic emergency Medicine
4. Annals of Emergency Medicine
5. Critical care and resuscitation : journal of the Australasian Academy of Critical Care Medicine
6. Advances in Wound Care
7. Turkish Journal of Emergency Medicine(Open Access)
8. Internal and Emergency Medicine
9. Shock
10. Western Journal of Emergency Medicine (Open Access)

Scimago Journal&Rank(SJR)' ye göre 2021'de Q2 Sınıfında Yer Alan Acil Tıp Dergileri(ilk 10):

1. Health security
2. European Journal of Emergency Medicine
3. Burns

4. Journal of Child and Adolescent Trauma
5. Emergency Radiology
6. BMC Emergency Medicine (Open Access)
7. European Journal of Trauma and Emergency Surgery
8. AEM Education and Training
9. Prehospital and Disaster Medicine
10. Emergencias

Scimago Journal&Rank(SJR)' ye göre 2021'de Q3 Sınıfında Yer Alan Acil Tıp Dergileri(ilk 10):

1. **Ulusal Travma ve Acil Cerrahi Dergisi**
2. Australasian Journal of Paramedicine
3. Journal of Emergency Management
4. Turkish Journal of Anaesthesiology and Reanimation
5. Der Unfallchirurg
6. AACN Advanced Critical Care
7. Air Medical Journal
8. Malaysian Orthopaedic Journal (Open Access)
9. Medizinische Klinik - Intensivmedizin und Notfallmedizin
10. International Journal of Emergency Management

Scimago Journal&Rank(SJR)' ye göre 2021'de Q4 Sınıfında Yer Alan Acil Tıp Dergileri(ilk 10):

1. Hong Kong Journal of Emergency Medicine (Open Access)
2. Notfall und Rettungsmedizin
3. Clinical Pediatric Emergency Medicine
4. Annales Francaises de Medecine d'Urgence (Open Access)
5. Notarzt
6. Anasthesiologie, Intensivmedizin, Notfallmedizin, Schmerztherapie : AINS (Open Access)
7. Oxymag
8. Journal of Acute Medicine (Open Access)
9. Journal of Emergency Medicine, Trauma and Acute Care (Open Access)
10. Sklifosovsky Journal Emergency Medical Care (Open Access)

Yabancı Endekslerde Bulunan Türk Acil Dergileri:

1. Ulusal Travma ve Acil Cerrahi Dergisi
2. Turkish Journal of Emergency Medicine (Open Access)
3. Eurasian Journal of Emergency Medicine
4. Journal of Emergency Medicine Case Reports

Resuscitation dergisi(Q1):

- 5 yıllık impakt faktör---6,251
- Kabul oranı---%34
- Tüm yazılar için ilk karar---ortalama 2.3 hafta
- Hakemlik süresi---4.9 hafta

- Kabul sonrası baskı zamanı---1.6 hafta
- Yayın Sıklığı: Aylık
- Open Access ücreti: 3640$

World Journal of Emergency Surgery(Q1):

- 5-Yılık İmpact Factor--7.81
- Tüm yazılar için ilk karar---ortalama 8 gün
- Hakem değerlendirmesinden ilk karara kadar geçen süre---ortalama 24 gün
- Ayda 2-3 kez yayınlanır
- Ücreti: 2590,00 Sterlin/3390,00$/2890,00 € + vergiler

Annals of Emergency Medicine(Q1):

- 5-Year Impact Factor--6.805
- Yılda 12 sayı
- Basım hızı---Yavaş
- Kabulden sonra basım zamanı----20 hafta
- Yükleme ile kabul arası süre----6 hafta
- Kabulden online hale kadar geçen süre---8 hafta
- Ücret: 499$ + vergiler

The Global Emergency and Critical Care

Türkiye Acil Tıp Vakfı bünyesinde yayınlanmakta

Web Adres: https://www.globemcc.com/home

Yayın hayatına yeni başlayan dergi

Yılda 3 kez (Nisan, Ağustos ve Aralık) yayınlanıyor

Yayın dili İngilizce

Ücretsiz

İndeksi: J-GATE, Galenos

Sonuç olarak;

Acil tıp dergilerini seçerken; gönderilecek çalışmanın derginin ilgi alanına girip girmediği, derginin endeks durumu, derginin çeyrekliği(Q) ve etki faktörü (IF), dergini yayın sıklığı, dergini ücret alıp almadığı, korsan/şaibeli/yağmacı dergi şüphesi varlığı araştırılmalıdır. Acil tıp dergilerinin sayısının arttırılmasına ihtiyaç vardır.

Referanslar:

1. https://www.scimagojr.com/journalrank.php (Son erişim tarihi: 08.10.2022)
2. https://mjl.clarivate.com/ (Son erişim tarihi: 08.10.2022)
3. https://authorservices.taylorandfrancis.com/publishing-your-research/choosing-a-journal/journal-suggester/ (Son erişim tarihi: 08.10.2022)
4. https://journalsuggester.springer.com/ (Son erişim tarihi: 08.10.2022)
5. https://www.journalguide.com/ (Son erişim tarihi: 08.10.2022)

6. https://www.cwauthors.com/Journal-Finder (Son erişim tarihi: 08.10.2022)
7. https://journalfinder.wiley.com/search?type=match (Son erişim tarihi: 08.10.2022)
8. https://journals.indexcopernicus.com/ (Son erişim tarihi: 09.10.2022)
9. https://phys.org/news/2013-01-world-wide-web-creator-access.html (Son erişim tarihi: 09.10.2022)
10. https://tr.wikipedia.org/wiki/A%C3%A7%C4%B1k_eri%C5%9Fim (Son erişim tarihi: 10.10.2022)
11. https://library.ku.edu.tr/hizmetler/acik-erisim-akademik-iletisim/makale-islem-ucretleri-apc/#:~:text=Akademik%20makalelerin%20a%C3%A7%C4%B1k%20eri%C5%9Fim%20olarak,%C3%B6dendi%C4%9Fi%20bir%20A%C3%A7%C4%B1k%20Eri%C5%9Fim%20y%C3%B6ntemidir. (Son erişim tarihi: 10.10.2022)
12. https://road.issn.org/ (Son erişim tarihi: 11.10.2022)
13. https://beallslist.net/#update (Son erişim tarihi: 11.10.2022)
14. https://www.avesyayincilik.com/tr/haberler/yagmaci-predator-dergiler-hakkinda (Son erişim tarihi: 09.10.2022)
15. https://www.makaletercume.com/ (Son erişim tarihi: 09.10.2022)

Ağrı yönetiminde Ketamin puşe mi, hızlı infüzyon mu?

Ertuğrul Altuğ

Ağrı, ciltte nosireseptörler tarafından algılandıktan sonra afferent ağrı yolları ile iletilir. Ağrı genellikle inflamasyon kaynaklı "Subtance P, Prostaglandinler, Serotonin ve Asetilkolin" salgılanmasıyla meydana gelir. Spinal N-metil-D-aspartat (NMDA) reseptörleri ile merkezi sinir sistemine iletilir. Spinotalamik yol ile retiküler aktivite sistemi (RAS) ve talamus'a ulaşır. Son olarak somatosensörial korteks'e iletildikten sonra ağrı hissedilir.

ABD verilerine göre acil servis başvurularının en sık sebeplerinden birisi ağrıdır. ABD hastalık kontrol ve önleme merkezi verilerine göre acil servise yılda >136 milyondan hasta başvurmaktadır. Bunların %16,1'i ağrı nedenlidir. (1)

Ağrı kontrolündeki birincil hedef, hastanın optimal konforunu sağlamaktır. İkincil hedef ise ağrıya karşı olumsuz fizyolojik tepkileri (oksijen tüketimindeki artış, koagülopati, bağışıklık sistem bozukluğu vb) azaltmaktır. Son olarak ise kronik ağrıları engellemektir.

İdeal bir analjezik ilacın özellikleri; hızlı başlangıç, hızlı iyileşme, ilaç birikiminin olmaması, bağımlılık yapmaması, yan etki ve toksisite oluşturmamalıdır. Analjezik olarak opioid ilaçlar (morfin, fentanil, metadon vb.) ve nonopioid ilaçlar (parasetamol, ketamin, gabapentin vb) kullanılmaktadır.

Ketamin, 1962 yılında 'Parke-Davis' tarafından sentezlemiştir. 1965 yılında ilk defa kullanıldı. Psikimotor ajitasyon, depresyon, migren, status epileptikus ve ağrı gibi durumlarda kullanılmaktadır. NMDA reseptörlerine antagonistik etki etmesiyle analjezik etki oluşturmaktadır. Akut ağrı (travma, postop analjezi, yanık, orak hücreli anemi krizi) tedavi dozları IV olarak 0,25-0,5 mg/kg bolus (max bolus= 35 mg) kullanılmaktadır.

American Society of Regional Anesthesia (ASRA) ve The American Society of Anesthesiologists (ASA) dernekleri tarafından ortak olarak yayınlanan IV ketaminin akut ağrı tedavisi kılavuzuna göre ketaminin akut ağrıda artan kullanımı, kronik opioid kullanım riskini ve bağımlılığını azaltmak için gün geçtikçe artmaktadır. (2)

Aynı kılavuzdaki 'Ketamin tedavisinde hangi hastalar ve akut ağrı durumları dikkate alınmalıdır?' ilk sorunun cevabı postoperatif hastalarda (göğüs cerrahisi, abdominal ve ortopedik) opioid dozunu azaltmak için kullanılabilir. Randomize kontrollü çalışmada majör vertebra cerrahisi sonrası 102 opioid bağımlısı hastada opioid tüketimini azaltmıştır. (3)

Kılavuzdaki 'Hangi doz aralığı subanestezik olarak kabul edilir ve kanıtlar akut ağrı için bu aralıktaki dozlamayı destekliyor mu?' durumuna cevabı ise analjezi tedavisi için 0,3-0,5 mg/kg bolus, 0,1-0,2 mg/kg infüzyon olarak kullanılması önerilmektedir.

Kılavuz bir başka soru olan 'Akut ağrı yönetimi ortamında ketamin infüzyonlarının kontrendikasyonları nelerdir ve kronik ağrı ortamlarından farklılar mı?' ise ketamin en sık akut ağrıda kullanılmaktadır. Yapılan çalışmalarda bildirilen en sık advers etki bulantı, kusma, halüsinasyonlardır. Ama çoğu çalışmada advers etkilerin insidansı, plaseboya kıyasla yalnızca biraz yüksek veya fark yoktur. (4,5)

Ketamin ilişkili yan etkiler ise,

- Laringospazm
- Kardiyovasküler etkiler (kan basıncında artma, taşikardi, kardiyak aritmi)
- Bağımlılık (uzun süreli kullanımda)
- Halüsinasyon

- Genitoüriner etkiler (kronik kullanım sonucu dizüri, idrar kaçırma hematüri)
- Solunum depresyonu
- Karaciğer hasarı (tekrarlayan dozlarda görülür)
- Artan kafa içi basıncı (min etkiye sahip)

Sin B ve ark.'ları (6) tarafından 2016 yılında çalışma tek merkezli, prospektif , randomize , çift kör plasebo kontrollü bir çalışma sonucu, Numeric Rating Scale (NRS)'den 3 ve üzeri puan alan kişilerde IV ketamin 30 hastada püse ve plasebo 30 hastada infüzyon arasındaki farkı incelenmiştir. Ketamin alan hastalarda %3,3 bulantı varken plasebo grubunda %10 olarka tespit edilmiştir. Acil servite kalış süreleri arasında ise anlamlı bir fark görülmedi. Ama IV püse ketamin tedavisi alan hastaların akut ağrısında daha hızlı ve fazla analjezik etki görülmüştür.

Aynı çalışma da plasebonun etki başlama süresi 15 dakikalık infüzyon sonrasında ortalama 15 dk sürmektedir. Bu durumda analjezik etkinin başlaması için geçen süre yaklaşık 30 dk'dır. Ketamin ise daha hızlı olarak yaklaşık 10-15 dk'da etkileri başlamaktadır. (6)

Goltster A'nin (7) yapmış olduğu acil servise akut ağrı ile başvuran 14 hastada katamin kullanılan vaka serisidir. Çalışmada 10 dk ketamin ile serum fizyolojik (SF) infüzyonu karşılatırılmıştır. Ama bu çalışmadaki 14 hastanın %86'sı acil serviste ketamin verilmeden önce opioid almıştır. Ayrıca 14 hastanın 13'ü ketaminden sonra 1 saat içinde kurtarma analjezisine ihtiyaç duymuştur. Bu çalışmadaki 14 hastanın 9'una ketamin infüzyon olarak değil püse olarak uygulanmış olup hiçbir tehlikeli yan etki oluşmamıştır.

Aynı çalışmada travmatik ağrı ile gelen hastalarda ketamin puşe ve morfin ile sadece morfine bakılan randomize kontrollü bir çalışma olup ketamin alan grupta sadece %10 gibi (70 hastada) bir oryantasyon bozukluğu hissi olmuştur. Ciddi bir yan etki olmamıştır. (8)

Motov S ve ark'ları (9) tarafından yapılan acil servite prospektif, çift kör bir çalışmada, IV puşe ketamin ile 15 dk üzerinde infüzyon karşılaştıran 48 hastalık bir çalışmadır. Bu çalışmada yan etki olarak iki grup arasında sadece unreality arasında anlamlı fark görülmüştür. Ama bu unreality durumu yaklaşık 15 dk içinde düzelmeye başlamakta ve 30 dk da tamamen düzelmektedir. Her iki durumda da takip süresi arasında anlamlı bir fark görülmemiştir.

Eben J ve ark'ları (10) tarafından acil serviste randomize, çift kör olarak yapılan bu çalışma IV ketamin infüzyonu ile IV plasebo infüzyonu ve IV puşe ketamin ile IV puşe plaseboyu karşılatıran 62 hastalık bir çalışmadır. Bu çalışmada, 60 dk içinde gelişen yan etkiler incelenmiştir. Bu çalışmada infüzyon ile puşe ketamin arasında gelişen yan etkilarde anlamlı bir farklılık görülmedi. Bunun yanında puşe ketamin yapılan hastalarda analjezik etki daha hızlı ve daha güçlü olduğu görülmüştür.

Motov S ve ark'larının (11) retrospektif olarak yapılan çalışmada ketaminin analjezik açıdan kullanılan 362 hasta incelenmiştir. Bu hastaların 209'u ketamin infüzyon olarak verilmiştir. 49 hastada ise puşe olarak yapılmıştır. Puşe yapılan ketamin tedavisi sonrasında opioid tedavi ihtiyacı yaklaşık %10'a yakın düşme görülmüştür. Ayrıca puşe yapılan ketamin grubunda sonrasında analjezi ihtiyacı gelişme oranı en az olan grup olduğu görülmüştür. Bu çalışmada görüldüğü üzere analjezik etki oluşturmak üzere gerekli olan doz miktarında anlamlı bir fark olmamasına rağmen puşe yapılan hastalarda gerekli olan doz miktarı daha azdır.

Sonuç olarak;

1. Yan etkiler arasında anlamlı bir farklılık yoktur.
2. Dozlar arasında anlamlı bir farklılık yoktur.
3. Her iki tedavi durumunda hastane takip süresi eşittir.
4. Ketamin infüzyon tedavisi için personel ve malzeme, ekipman gereklidir.
5. Ketamin infüzyon tedavisinde analjezik etkisi daha az ve geç olmaktadır.

6. Ketamin puşe tedavisinde oluşan unreality durumunda hastalara gerekli olan ilk müdahale yapılma imkanı oluşmaktadır.

Tüm bunların neticesinde ketamin tedavisi akut ağrılı hastalarda puşe olarak kullanılmalıdır.

Referanslar

1. Centers for Disease Control and Prevention website. National Center for Health Statistics: emergency department visits. Available at: http://www.cdc.gov/nchs/fastats/emergency-department.htm. Accessed March 8, 2016
2. Schwenk ES, Viscusi ER, Buvanendran A, Hurley RW, Wasan AD, Narouze S, Bhatia A, Davis FN, Hooten WM, Cohen SP. Consensus Guidelines on the Use of Intravenous Ketamine Infusions for Acute Pain Management From the American Society of Regional Anesthesia and Pain Medicine, the American Academy of Pain Medicine, and the American Society of Anesthesiologists. Reg Anesth Pain Med. 2018 Jul;43(5):456-466. doi: 10.1097/AAP.0000000000000806. PMID: 29870457; PMCID: PMC6023582
3. Loftus RW, Yeager MP, Clark JA, et al. Intraoperative ketamine reduces perioperative opiate consumption in opiate-dependent patients with chronic back pain undergoing back surgery. Anesthesiology. 2010;113:639–646
4. Laskowski K, Stirling A, McKay WP, Lim HJ. A systematic review of intravenous ketamine for postoperative analgesia. Can J Anaesth. 2011; 58:911–923
5. Bell RF, Dahl JB, Moore RA, Kalso E. Peri-operative ketamine for acute post-operative pain: a quantitative and qualitative systematic review (Cochrane review). Acta Anaesthesiol Scand. 2005;49:1405–1428
6. Sin B, Tatunchak T, Paryavi M, Olivo M, Mian U, Ruiz J, Shah B, de Souza S. The Use of Ketamine for Acute Treatment of Pain: A Randomized, Double-Blind, Placebo-Controlled Trial. J Emerg Med. 2017 May;52(5):601-608. doi: 10.1016/j.jemermed.2016.12.039. Epub 2017 Mar 6. PMID: 28279542
7. Goltser A, Soleyman-Zomalan E, Kresch F, Motov S. Short (low-dose) ketamine infusion for managing acute pain in the ED: case-report series. Am J Emerg Med. 2015 Apr;33(4):601.e5-7. doi: 10.1016/j.ajem.2014.09.029. Epub 2014 Sep 26. PMID: 25447602
8. Jennings PA, Cameron P, Bernard S,Walker T, Jolley D, Masci K. Morphine and ketamine is superior to morphine alone for out-of-hospital trauma analgesia: a randomized controlled trial. Ann Emerg Med 2012;59:6
9. Motov S, Mai M, Pushkar I, Likourezos A, Drapkin J, Yasavolian M, Brady J, Homel P, Fromm C. A prospective randomized, double-dummy trial comparing IV push low dose ketamine to short infusion of low dose ketamine for treatment of pain in the ED. Am J Emerg Med. 2017 Aug;35(8):1095-1100. doi: 10.1016/j.ajem.2017.03.004. Epub 2017 Mar 3. PMID: 28283340
10. Clattenburg EJ, Hailozian C, Haro D, Yoo T, Flores S, Louie D, Herring AA. Slow Infusion of Low-dose Ketamine Reduces Bothersome Side Effects Compared to Intravenous Push: A Double-blind, Double-dummy, Randomized Controlled Trial. Acad Emerg Med. 2018 Sep;25(9):1048-1052. doi: 10.1111/acem.13428. Epub 2018 May 25. PMID: 29645317
11. Motov S, Drapkin J, Likourezos A, Doros J, Monfort R, Marshall J. Sub-dissociative dose ketamine administration for managing pain in the emergency department. World J Emerg Med. 2018;9(4):249-255. doi: 10.5847/wjem.j.1920-8642.2018.04.002. PMID: 30181791; PMCID: PMC6117536.

Damage Control Approach and Overcoming Stereotype Resistances

Burak Çelik

Kirsehir Training and Research Hospital, Department of Emergency Medicine

Damage control

Damage control (DC) was first termed to describe measures taken by a ship's crew to reduce damage that immediately threatened the integrity of the hull, and enabled return to port for definitive repairs. DC has been traced to the British Royal Navy as early as the 1600s. Rotando and colleagues were credited as the first to use the term DC in the medical literature to describe improved survival in exsanguinating, penetrating, abdominal trauma using damage control surgery (DCS), comprising haemorrhage control, peritoneal decontamination and packing and rapid closure rather than definitive laparotomy, although similar strategies had previously been documented.

Resuscitation aims to restore physiological normality to the acutely unwell and, may incorporate various techniques, including surgical and radiological intervention. Damage control resuscitation (DCR) encompasses techniques to restore physiological balance to the major trauma patient, and describes a systematic approach to minimize haemorrhage, prevent coagulopathy and maximize tissue oxygenation to optimize patient outcome. DCR incorporates the concepts of both DCS and Damage Control Radiology (DCRad).

The concept of DCR was initially used in military situations to describe approaches to the management of the severely injured trauma patients and has evolved significantly in the last two decades. Early resuscitation now employs a horizontal team approach, where rapid restoration of physiology has primacy over definitive surgical repair ('operating on physiology, not anatomy'). This philosophy has increasingly been adopted in the civilian environment. DCS describes the specific, systematic surgical approaches focussing on normalizing physiology from the dual insults of injury and surgery, as opposed to providing immediate definitive repair. DCRad incorporates diagnostic and interventional radiological solutions used to treat severely injured patients.

Recent history of trauma care

Advances in trauma care commonly occur during warfare, where high numbers of seriously injured soldiers are treated, although a landmark change was the introduction of the Advanced Trauma Life Support (ATLS) program in 1978. ATLS was originally targeted at doctors with little expertise in trauma and provides a structured system for recognizing life-threatening problems and instigating appropriate interventions. The ATLS 'Airway, Breathing, Circulation, Disability, and Exposure' (ABCDE) mantra is familiar the world over. Whilst it is likely this approach has saved many lives over the years, with the advent of regional trauma networks and experience gained from large recent military campaigns, an approach that reaches beyond ATLS is now required in civilian practice. DCR is a more recent evolution enhancing resuscitation of major trauma. Over the last decade, DCS and DCR have evolved significantly as increasing experience has driven clinical innovation

Damage control resuscitation

The key tenets of DCR are controlling the bleeding (including DCS and DCRad), hypotensive or novel hybrid resuscitation, hemostatic resuscitation, and massive transfusion.

Controlling the bleeding

Effective DCR starts at the point of injury. A range of interventions from direct pressure, hemostatic agents and tourniquets to stem bleeding, to more advanced strategies offered by some services, such as pre-hospital resuscitative endovascular balloon occlusion of the aorta (REBOA) and abdominal aorta junctional tourniquet (AAJT).

During the primary survey any ongoing bleeding should trigger rapid intervention to stem further hemorrhage. Where necessary tourniquets, pelvic binders and distraction/splinting of long bone injuries should be instigated. Prompt decisions to move to the operating theatre or radiology suite should be made for severe ongoing hemorrhage; if not then multi-slice computed tomography can provide essential information which often guides intervention (see DCS and DCRad sections below).

Hypotensive and novel hybrid resuscitation

Hypotensive resuscitation describes targeting a lower blood pressure until definitive hemostasis is achieved. This approach is a trade-off between adequacy of tissue perfusion, versus normalizing coagulopathy and gaining hemostasis. Reduced crystalloid volumes are less likely to create dilutional coagulopathy, and reduced pressures are less likely to dislodge formed clots. Tissue oxygen delivery and clearance of metabolic waste must, however, be maintained at a level compatible with life.

Hypotensive anesthesia is a well-established practice for minimizing bleeding in many surgical situations. Animal models of uncontrolled hemorrhagic shock with both penetrating and blunt trauma have demonstrated benefit using targeted lower mean arterial pressures (MAP) of 60e70 mmHg whilst bleeding is ongoing. Human data have added further weight to this approach and suggested both shorter bleeding times and improved mortality. However, extended hypotension increases tissue hypoperfusion and adds to ATC. A military research strategy of 'novel hybrid resuscitation'9 (NHR) has shown improved outcomes with a targeted systolic blood pressure of 80 e90 mmHg or palpable radial pulse for the 60 minutes postinjury, increasing to 110 mmHg with volume boluses. Initial data are promising but large-scale human data are awaited.

Massive transfusion protocols and hemostatic resuscitation

Various definitions of massive hemorrhage exist including:

- The requirement for ten or more units of PRBC within 24 hours of admission
- Replacement of a whole blood volume within 24 hours
- Replacement of 50% volume within 3 hours
- Ongoing blood loss of 150 ml/minute or greater.

Massive transfusion (or hemorrhage) protocols (MTP) were designed to provide a systematic way of dealing with the coagulopathy resultant on sole administration of PRBCs without additional coagulation factors such as plasma or platelets. However, empiric MTPs do not necessarily provide the best solution for traumatic hemorrhage.

MTPs typically rely on standard blood tests which take time to process (and are often inadequate in a dynamic resuscitation). Coagulation assays in particular do not give enough factor specific information and have limited use in this context. Currently the best empirical blood product administration is controversial. PRBC alone provides little hemostatic capability. High volumes of FFP are independently associated with serious complications including multi-organ failure and acute respiratory distress syndrome. FFP takes time to thaw, and so many MTPs start with PRBC only. FFP and platelets/fibrinogen then follow. PRBC and FFP without platelets and cryoprecipitate (or fibrinogen concentrate) give no clear benefit, so incorporating equivalent ratios at an early stage appears vital. High Plt:FFP:PRBC ratios confer a survival advantage, but whether that is at 1:1:1 or 1:1:2 is not clear despite recent investigation.10 A typical DCR strategy involves empirically giving blood products initially at ratios of 1:1:1:1 Cryo:Plt:FFP:PRBC to approximate whole blood equivalence, followed by a conversion to specific goal directed therapy guided by thromboelestography.

Keeping the lethal triad at bay

Once hemostasis is achieved a targeted volume resuscitation ('vasodilate and fill') approach begins, still using rapidly infused warmed blood products at 1:1:1:1 ratios. This shifts the resuscitation focus towards restoring end

organ perfusion and oxygenation, and eradicating acidosis. Vasopressors should be avoided where hemorrhagic shock exists to avoid further peripheral acidosis and facilitate faster base deficit (BD) clearance. BD provides an indirect indicator of hypoperfusion, and forecasts transfusion requirements, which also correlates with mortality; it therefore makes it an effective resuscitation marker. Active methods to prevent and reverse hypothermia undertaken, including warming fluids, warming the environment (operating theatre, CT scanner, resuscitation room), warmed air convection devices and heated mattresses. It is important not to forget to cover the patient's head and to use warmed irrigation fluids for body cavities.

Giving antifibrinolytic agents

The CRASH-2 trial11 provided evidence that early administration of tranexamic acid (TXA) reduced the risk of death in bleeding trauma patients by approximately one-third. The protocol was 1 g over 10 minutes as a loading dose, then a further 1 g as an infusion over 8 hours. Administration of TXA should ideally be started within 1 hour of injury, and within 3 hours to avoid harmful effects. TXA has now become incorporated as standard practice in UK trauma care. Point of care testing (POCT) Point of care testing has also advanced in recent years and it is now feasible to provide this facility cost effectively in major centers. Viscoelastic coagulation tests are dynamic tests which analyze the kinetics of the whole coagulation process and allow for identification of targeted therapeutic interventions (see POCT article in Surgery, Feb 2013 issue). Such tests may facilitate individualized treatment strategies and can reduce total blood product requirement. There are three systems in widespread commercial use: ROTEM (rotational thromboelastometry), TEG (thromboelastography) and SONOCLOT. Definitive outcome advantages are yet to be demonstrated so it seems unlikely that widespread adoption of its use will take place outside major centres at the moment.

Correcting for electrolyte imbalances

As massive transfusion progresses correction of electrolyte disturbances is required, specifically hyperkalemia and hypocalcemia. Regular checks should be undertaken. Hyperkalemia development is independently associated with PRBC administration. This is exaggerated when older PRBC are given or when infusion under pressure occurs. Administration of calcium (providing myocardial protection) and an insulin dextrose Infusion (to encourage potassium to move intracellularly) should be instigated if hyperkalemia is detected.

Hypocalcemia is a common problem in severe trauma, in part due to citrate, a calcium-chelating agent, which is added to donated blood to facilitate storage. As massive transfusion progresses so ionized calcium levels are depleted, and regular replacement is required to maintain a level of more than 1 mmol/liter. In addition to bestowing cardio-protective properties, calcium is an essential cofactor in the normal coagulation process, effecting both platelet activation and the clotting cascade. Furthermore, low levels of ionized calcium are associated with an increase in mortality in critically ill patients.

How to Teach Surgical Residents during Damage Control

There is significant variability in the duration of trauma surgery rotations in general surgery residencies across the United States. Currently, the American Board of Surgery requires only 20 operative trauma cases to sit for the qualifying exam. The end result is that graduating surgical residents may have limited clinical exposure to damage control operations and may fail to recognize that they are in or how to exit a time sensitive, complex clinical situation.

Three step cycle that can be applied to teaching in a wide variety of acute medical conditions. This approach to learning also takes into account that the primary duty of the attending surgeon is to the patient under their care.

1. The initial step occurs well before the patient is injured and involves having the residents work through a series of clinical scenarios in which damage control would be required. Drawing from the military, these "war games" prepare the residents through the use of the Socratic teaching method to learn the indica-

tions, steps of the procedure and outcomes without any patient risk.

2. The second step occurs when the patient arrives and involves effective teaching techniques during a time of crisis.
3. The final step is an after-action review, when the resident can reflect on his or her performance during the case, and the surgeon can provide feedback. This final step can also be incorporated into a war game scenario, thus completing the cycle.

War Games

Previous generations of surgical residents learned how to rescue patients by treating real emergencies. However, as a result of changes in duty hour limitations and other requirements, these actual clinical experiences have decreased. Adding insult to injury, when residents are at the bedside, there is little teaching in a crisis. As a result, the inexperienced resident, the one most in need of the experience, is frequently pushed into an observer role by a more experienced clinician. In this new educational environment, the need for the resident to have to work through high-risk clinical decision-making before the need actually arises is a necessary requirement. To be an effective teacher, the most important requirement is to perform a rapid needs assessment and determine what the resident already knows and what their misconceptions may be.

This approach also prevents the attending from wasting their time by covering information the resident already understands. This leads to higher level discussion. Young et al. coined the term "War Games" to describe the process of having learners work through clinical scenarios primarily by requiring the participants to articulate their clinical decision-making. This formalization of the age-old practice of senior clinicians asking a series of questions, involves several key elements.

First, the resident is provided with basic clinical information or a scenario. Through a process of inquiry, the attending then maneuvers the residents to articulate how the clinical history, examination, laboratory and radiographic data influence their clinical decision-making. In addition, the resident can be asked to describe the technical aspects of an operation. This educational technique can be utilized for all types of clinical problems. However, with respect to damage control surgery, it allows the resident to formulate an approach to high-risk clinical decision-making without any patient risk. While this approach may be combined with a simulator, the primary focus is critical thinking rather than technical skill development. The educational literature on how to ask questions is well beyond the scope of this manuscript. However, there are several fundamental techniques that will facilitate these sessions. The attending should have an outline of the sequence of questions to be asked, so there is a logical flow to the teaching session. Questions should be open-ended and asked using neutral language that does not give away or lead the resident to the correct response. Ask only one question at a time to a specific resident and do not interrupt. Transition through the sequence of questions logically.

The goal is to allow the resident to make mistakes. Allowing the resident to go down an incorrect path and figure out for themselves what they did wrong has a greater impact and is also reminiscent of the way learning was done at the bedside, but without any risk of patient harm. The attending does need to beware of the superficial resident who knows the "buzz words" but lacks in-depth knowledge. These learners typically reveal themselves when they are required to articulate the basis of their statements. The attending also needs to be cognizant that the next generation of residents has different learning expectations. The attending will be better received if the residents are forewarned that the session will be interactive, by allowing the residents and students to work as teams, permitting the use of electronic devices, and by framing these sessions as a "war game", rather than a pimping session.

The resident will better prepared if they are required to rehearse and articulate their critical thinking and decision making prior to the arrival of the patient. However, this war game approach is not an adequate substitute for actual clinical experience.

Teaching During an Operative Crisis

Teaching damage control in the operating room will ultimately be dictated by the patient's stability and the indication for damage control. Abbreviating a trauma exploratory laparotomy due to acidosis, diffuse, non-surgical coagulopathy, and hemodynamic instability allows for less teaching time compared to a more planned reason for keeping the abdomen open such as for a second look procedure.

Initiating an honest, open conversation with the resident sets the stage for learning. The attending must set the expectation of the resident's level of operative involvement, but encourage resident participation. The resident's proactive behaviors must be recognized and valued. Demonstrating concern for the resident's personal development increases the resident's perception of involvement.

The first operative opportunity that the attending controls is entering the operating room with the patient and ensuring the resident is present. The resident's presence demonstrates that he/she is a valuable and valid member of the team. If the attending walks into the operating room and states the situation, background, and anticipated events or needs without the resident present, the clear message sent to the resident and the team is that the resident is an accessory to the operation at hand. If the attending is anticipating damage control, loudly and clearly asking for anesthesia to check the temperature and labs specific to acidosis and coagulopathy and asking the circulating nurse for temporary dressings (for example, negative pressure vacuum dressing) may be triggers for the resident.

Despite the effort made by the attending to teach intraoperatively, the data suggest that the perceptions of the resident and attending are not aligned; therefore, do not be discouraged by a single perceived negative experience. Certain intra-operative teaching behaviors have been identified through an extensive literature review and input from expert attending surgeons and medical educators. Ultimately, the residents recognize that patient safety supersedes teaching. Even in the instance when it feels as if no teaching can occur due to the gravity of the situation, maintaining a positive relationship with the resident and acknowledging their need to learn allows for the opportunity to educate following the operative stress.

The After Action Review

The performance of damage control surgery implies that the situation is complex and that the attending is faced with competing clinical priorities. The methods of preparation and teaching during the crisis have previously been presented. However, it is the after action review or debriefing that may be the most important in solidifying the resident's education. This professional discussion takes little time and is focused on three main points. First, to compare how the recent case compares to performance standards. Second, to empower and enable the surgical resident to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. Finally, the attending should also reflect on the same elements of the operation as well as their own teaching performance. The willingness of the attending surgeon to accept critical feedback from the residents should also facilitate acceptance of critical feedback by the resident.

Incorporation of other operative team members into the after action will also facilitate future communication and improve performance of a multi-disciplinary team. Because the participants in after action review are encouraged to actively discover what happened and why, they learn and remember more than they would from critique alone. Typically, a critique is from a single vantage point, is focused only on what went wrong, inhibits candid discussions, and stifles learning and team building.

The end goal is to improve resident performance in the areas of clinical decision-making and technique and improve attending surgeon's crisis leadership and teaching skills in order to develop a more cohesive team. With respect to resident education, after-action reviews may capture some elements of performance that are not easily placed within an end of rotation evaluation. It is also important for the surgeon to understand that there is a difference between a formative assessment and a summative evaluation. The after-action review is an example of a formative assessment—the purpose of which is to provide ongoing feedback, help residents identify strengths, weaknesses, and target areas that need greater attention.

These assessments are low stakes, and the resident needs to understand that being open about their self-identified areas for improvement will not be held against them.

Summative evaluations are high stakes and completed at the conclusion of a rotation or instructional unit. Performance of a damage control operation is a stressful and highly dynamic situation. Leading an after-action review while the attending, the resident, and the team are still emotional will not be fruitful. Additionally, the patient needs to transition into the intensive care unit for restoration of normal physiologic status.

Creating the proper atmosphere may be the most important aspect of the after-action review. The leader, typically the attending surgeon, should begin the review by setting out the ground rules of the discussion. Everyone should participate if they have an insight, observation, or question which will help identify and correct deficiencies or maintain strengths. Regardless of position or strength of personality, no one person has all the information or answers. The key is for each participant particularly the resident to reflect on their own performance, to learn from others, and provide their own observations to other participants, including the attending surgeon. Reinforce that is permissible to respectfully disagree.

(((How to Teach Surgical Residents during Damage Control Surgery))))

What have we done for emergency damage control approaches in Syria?

A workshop on Damage Control Surgery and Resuscitation in mass trauma was held in Syria. In this workshop, expert academics from Turkey came. 43 Syrian physicians, most of whom were surgeons, attended the workshop on Damage Control Surgery and Resuscitation in mass trauma at Çobanbey Hospital in Northwest Syria. Physicians working in the emergency and surgery departments throughout the North Syria region were invited to participate in the workshop. The physicians in the workshop were emergency medicine specialists, surgical surgeons working at ED, and other physicians working at ED. The workshop consisted of two phases. On the 1st day, academicians with war surgery experience provided theoretical training as part of the seminar. On the 2nd day, interactive training was given with indications compiled from the literature in groups formed by participants led by these instructors. The academics who conducted the training were physicians who had worked in mass trauma events (such as terrorist attacks, earthquake zones, and conflict zones) and field hospitals for more than 10 years and had performed more than 50 non-elective surgeries per year.

It is known that there have been internal unrest and terrorist attacks in Northwest Syria for more than 10 years. It is important to know the damage control strategies for physicians who face many war injuries and mass trauma in this region. Awareness among physicians has increased as a result of the training we have provided on damage control in surgery and resuscitation. Such and similar training will be useful and life-saving in hospitals that are opened for humanitarian aid.

References

1. West N., & Dawes R. (2015). Trauma resuscitation and the damage control approach. Surgery (Oxford), 33(9), 430-436.
2. Schlitzkus LL., Waibel BH., & Schenarts P. J. (2018). How to Teach Surgical Residents during Damage Control Surgery. Current Surgery Reports, 6(9), 1-6.
3. Karaca, B., & Çelik, B. (2022). Awareness of damage control surgery and resuscitation practice: Rational emergency surgical trends in mass trauma events in Syria. Ulus Travma Acil Cerrahi Derg, 28(8), 1100-1108.
4. Fisher, Andrew D., et al. "JOINT TRAUMA SYSTEM CLINICAL PRACTICE GUIDELINE (JTS CPG)." (2018).
5. Roberts, Derek J., et al. "Indications for use of damage control surgery in civilian Trauma patients." Annals of surgery 263.5 (2016): 1018-1027.
6. Arul GS, et al. "Optimising communication in the damage control resuscitation-damage control surgery sequence in major trauma management." BMJ Military Health 158.2 (2012): 82-84.

ADRENAL ACİLLER

ADRENAL YETMEZLİK VE ADRENAL KRİZ

İlhami Demirel

Department of Emergency Medicine, University of Health Sciences, Haseki Training and Research Center, Istanbul, Turkey

Adrenal bez; korteksinde steroid hormonlarını, medullasında ise katekolaminleri sentezler. Adrenal yetmezlik kortekste üretilen adrenal bez hormonlarının üretimindeki eksikliği tanımlar. Adrenal Kriz; fizyolojik kortizol ihtiyacının artmasına ya da kortizol üretiminde azalmaya bağlı gelişen adrenal yetmezliğin hayatı tehdit eder hale gelmesidir.

Kortizol önemli bir glukokortikoid olup stres zamanlarında metabolizmayı dengede tutabilmek için salınır. Kortizol salınımı hipotalamik-pitüiter-adrenal aks ile kontrol edilir, bu aksta meydana gelen herhangi bir bozukluk adrenal yetmezliğe yol açar.

	KRONİK ADRENAL YETMEZLİK (%80)	ADRENAL KRİZ (%20)
Belirtiler	Yorgunluk, iştahsızlık, kilo kaybı, kas ağrısı, eklem ağrısı,baş dönmesi, bulantı, kusma	Şiddetli halsizlik, şuur değişikliği, akut karın ağrısı, bulantı, kusma, baş ağrısı, görme bulanıklığı
Bulgular	Ortostatik hipotansiyon, ateş, hiperpigmentasyon	Hipotansiyon, şok, ateş, batında hassasiyet, rebound
Laboratuvar	Hiponatremi Hiperkalemi Hipoglisemi Hiperkalsemi Anemi Lenfositoz Eozinofili	Hiponatremi Hiperkalemi Hipoglisemi Hiperkalsemi

Adrenal yetmezlik sıklığının 1-4/100 000 (4-14/ 100 000) olduğu düşünülmekte. ABD'de vakaların çoğunun sebebi primer adrenal yetmezlik sebeplerinden olan Addison hastalığına bağlıdır. Diğer primer sebepler; travma, ilaçlar, enfeksiyonlar, infiltratif hastalıklar ve genetik bozukluklardır. AIDS hastalarının adrenal yetmezlik geliştirme ihtimali %20 civarındadır.

Retrospektif bir çalışmaya göre adrenal yetmezlik hastalarının %44'ü akut adrenal krizden sonra tanı almaktadır. Adrenal Krizin başlıca sebepleri; gastrointestinal hastalıklar, (%25) enfeksiyonlar, (%25) cerrahi girişim, (%16) psikososyal stres, (%16) tedavi hataları (%16) ve fiziksel stres (%9)

Adrenal krizin en net klinik bulgusu i.v. sıvı ve vazopressörlere dirençli ciddi hipotansiyon olup vakaların %90'dan fazlasında görülür. Diğer belirtiler ateş, bulantı ve kusma, bilinç değişikliğidir. Gastrointestinal semptomlar (karın ağrısı, bulantı, kusma ve diyare) sık görülür. Vakaların %22'sinde akut batını taklit eden abdominal belirtiler görülebilir. Adrenal kriz düşünülen hastada tanının konmasını beklemeden tedaviye başlamalıdır. Erken tedavi mortalite ve morbiditeyi azaltır.Ancak tedavi sonrası kanda kortizol düzeyi değişebileceği için steroid tedavisine başlanmadan önce hastadan kan alınmalı ve santrifüj edilip buzdolabında saklanmalıdır. Kortizol düzeyi > 34 mcg/dl ise adrenal kriz dışlanır; kortizol < 15 mcg/dl adrenal kriz tanısını destekler. Ancak bu düzey kortikosteroid bağlayıcı globulin düzeyinden etkilenir ve fizyolojik stres hallerinde değişebildiğinden serbest kortizol düzeyinin güvenilirliği düşüktür.

ACTH STİMÜLASYON TESTİ: Önce bir başlangıç kortizol düzeyi bakılır, ardından kosintropin 0.25 mg i.v. (sentetik ACTH) verilir, sonra da 30 ve 60. dakikalarda tekrar kontrol kortizol düzeyleri alınır. Adrenal yetmezliği ekarte etmek için kortizol düzeyi en az 7 mcg/dl yükselmeli ve >18 mcg/dl seviyelerinde tepe seviyesine ulaşmalıdır.

Hemogram ile anemi, eozinofili, lenfositoz tesbit edilebilir. Hiponatremi, hiperkalemi, hiperkalsemi ihtimaline karşı elektrolitlere bakılmalıdır. Beyin BT/MR çekilerek pitüiter bez tümörü varlığı kontrol edilebilir. Abdomen BT ile hem adrenal tümör ya da adrenal kanama değerlendirilmeli hem de akut batına sebebi olabilecek patolojiler

ekarte edilmelidir.

Hem glukokortikoid hem de mineralokortikoid etkinliğinden dolayı hidrokortizon ilk seçenektir.100 mg i.v. uygulamadan sonra semptomlara göre 6-8 saatte bir 100 mg i.v. tekrarlanabilir.

Eğer hastaya ACTH Stimülasyon testi uygulanacaksa; serum kortizol seviyesini etkilememesi sebebiyle Deksametazon tercih edilir.4 mg deksametazon i.v. olarak uygulanır.

İ.v. hidrasyon tedavisine gecikmeden başlanmalıdır. 2-3 lt i.v. hidrasyon gerekebilir.Bu hastalarda hipoglisemi ve hiponatremi sıklıkla görüldüğü için salin ile birlikte %5 dekstroz tercih edilmelidir. İ.v. hidrasyona rağmen hipotansif seyreden hastalarda vazopressör tedavi başlanabilir. Altta yatan sebebin araştırılıp tedavi edilmeye çalışılması da gereklidir.

FEOKROMASİTOMA

Genellikle adrenal yerleşimli tümörlerdir.

Klasik triadı; Epizodik baş ağrısı, terleme ve taşikardidir

Hastalar genellikle *hipertansiyon* ile başvururlar.

Normal popülasyonda 1-2 / 1 000 000 iken otopsi serilerinde 250-1300 / 1 000 000. Bu da tanının çoğunlukla gözden kaçtığını göstermektedir.

Kesin tanı katekolamin ve metanefrinin 24 saatlik idrarda ölçümü ile konur.

Tedavisi cerrahidir.

Hastanın acil serviste hipertansiyonunu kontrol edebilmek için ilk seçenek Fentolamindir. α blokördür, etkisi 2-3 dk içinde başlar ve 10-15 dk sürer. 5 mg iv uygulanır.

Nitroprussid de kullanılabilir. etkisi hızlı başlar ve çabuk sona erer, 0,5-5 mcg/kg/dk infüzyon şeklinde uygulanır.

Özellikle son yıllarda Urapidil uygun bir ajan olarak öne çıkmıştır. α blokaj yapar, 5 dk içinde etkisi gözlenir, 10-50 mg iv yavaş puşe uygulanır ve tekrarlanabilir.

β blokerler kullanılabilir ancak α blokaj yapılmadan β blokaj yapılması kontrendikedir.

KİBAS

Mustafa Çalık

Farklı etiyolojik nedenlere bağlı, ancak temelde aynı patofizyolojik mekanizmalarların oluşturduğu, başağrısı, kusma ve göz dibinde papil ödem gibi bulgular ile karakterize olan kafa içi basınç artışı durumu **KİBAS** olarak adlandırılmaktadır. KİBAS' ın önemi; doku hipoperfüzyonu, doku iskemisi ve sonuçta beyin dokusunun geri dönüşümsüz hasarı ile sonuçlanmasıdır. Lomber ponksiyon ile ölçülen normal intrakranial basınç değerleri; yenidoğanlarda; 2-7 cm/H_2o, sütçocuklarında; 2-8 cm/H_2o, büyük çocuklarda; 8-10 cm/H_2o ve erişkinlerde; 8-10 cm/H_2o olarak bilinmektedir.

KİBAS' ın etiyolojisi; **1. Beyin Hacminin Artması** [Beyin ödemi, Yer kaplayan lezyonlar], **2. BOS Hacminin Artması** [BOS üretiminin artması (Koroid pleks. Papillomu), BOS emiliminin azalması (enfeksiyon, inflamasyon, SAK, sinüs trombozu], BOS dolanımının bozulması (Yapışıklık, kitle nedeniyle obstrüksiyon), **3. Beyin Kan Hacminin Artması** [intravasküler (KB artışı, VB artışı, asidoz ve hiperkarbi sonucu vazodilatasyon) Ekstravasküler (İntrakraniyal kanama ve hematom)].

Çocuklarda yaş gruplarına göre değişmekle birlikte; kafa travması, intrakraniyal kanama, santral sinir sistemi hastalıkları, asfiksi, metabolik nedenler, serebrovasküler olaylar ve yer kaplayan lezyonlar en çok görülen etiyolojik nedenlerdir. **Klinik bulgular** yenidoğan ve süt çocuklarında; Klasik genel bulgular beklenmez. Ön fontanel kabarıklığı, baş çevresinde artış, Papil ödem çoğunlukla görülmez. Letarji, kusma, 6. sinir paralizisi görülebilir. Büyük çocuklar ve erişkinlerde; Baş ağrısı, kusma, Diplopi (6. sinir paralizisi) ve papil ödem görülür. Papil ödem olmaması, KİBAS tanısını reddettirmez!!! Tedavi edilmeyen KİBAS'ta papil ödem ilerleyerek, OPTİK ATROFİ ve GÖRME KAYBI'na yol açar. Ciddi ve uzun süren vakalarda; Bilinç değişiklikleri, bradikardi, hipertansiyon, solunum değişiklikleri, pulmoner ödem, diabetes insipitus, uygunsuz ADH salınımı ve serebral tuz kaybı görülebilir.

Yaklaşım ve tedavi; KİBAS' ta basınç ciddi derecede artmadan tanı koymak ve yüksek basınçlarda oluşabilecek serebral hasarı önlemek esastır. Hasta acil ve ağır bir klinik tablo gösteriyorsa ve herniasyon belirtileri varsa; Tedavide ilk adım, vital bulguların stabilizasyonu ve hastanın durumunun ağırlaşmasının engellenmesi ve beynin rahatlatılmasının sağlanmasını içerir. Tedavi; Destek tedavisi, semptomlara yönelik tedavi ve etiyolojiye yönelik tedavi şeklinde üçe ayrılır.

Acil Tıp Yapay Zeka Kullanımı: 2022 Yaklaşımları ve Güncel Tartışmalar

DÖÜ. Sevilay Vural[1,2]

[1]University Medical Center Groningen

[2]Yozgat Bozok Üniversitesi

İçinde bulunduğumuz 2022 yılına kadar olan literatür incelendiğinde, tıp ve acil tıpta yapay zeka (YZ) çalışmalarının hızla arttığını görebiliriz. Basit bir literatür taramasında genel tıpta toplamda 41757, 2022 yılının ilk dokuz ayında ise 13177 çalışmanın yayınlandığını görürken, bu rakamlar acil tıp için 1119'a 383'tür. İster genel tıp ister acil tıp olsun, YZ çalışmalarının ilk başlangıcından itibaren geçen zaman sadece 10-15 yıldır. Tüm literatürün ise %90'ına yakın kısmı aslında son 3-4 yılda oluşmuştur. Bu da bize çok ciddi bir eksponansiyel büyüme ile karşı karşıya olduğumuzu göstermektedir. Ayrıca biraz ayrıntılı incelediğimizde, acil tıp çalışmaları genel tıptaki YZ çalışmalarının sadece %2,7'lik kısmını oluşturduğu ve bu oranın son 10-15 yıl içerisinde çok da değişmediğini de görebiliriz.

Biz hekimlerin çoğunun yazılım ve kodlama gibi arka planları olmaması çok doğaldır. Ancak YZ teknolojileri kullanılmış acil tıp çalışmalarını okumak, değerlendirmek ve bunları bir araştırma konumuza dahil edebilmek için genel konsepte ve en sık kullanılan yöntemlere hâkim olmak gerekir. Aksi takdirde ister bir yazar ister hakem isterse bir okuyucu olarak bu çalışmaların güçlü ve zayıf yanlarını, performansını ve gerçek hayata uyarlanabilirliğini değerlendirmemiz mümkün olmayacaktır. YZ çalışmalarının kaçınılmaz artışından dolayı daha profesyonel yaklaşımlar sağlanması için bazı tıp branşlarına ait bazı dergilerce kılavuzlar yayınlanmaya başlamıştır. Bunlardan ilki Bluemke ve ark. tarafından hazırlanan ve YZ destekli radyoloji çalışmalarında değerlendirme konusunda dikkat edilmesi gereken hususları derleyen kılavuzdur (1). 2019 yılında yayınlanan bu yazının hedefi hem yazarlar hem hakemler hem de okuyucular olmuştur. Acil tıp dergileri arasında benzer bir kılavuz henüz oluşturulmamıştır ancak acil tıp hekimlerini bilgilendirici, genel hatlarıyla YZ teknolojilerinin çalışmalara nasıl entegre edildiği konusunda bilgilendirme içeren çeşitli derlemelere ulaşmak mümkündür (2).

Özellikle son yıllarda giderek artan tartışma noktalarından biri ise tıp ve uzmanlık müfredatına YZ konseptinin entegrasyonudur (3,4). Nasıl ki, mevcut pratikte kullandığımız direkt grafi, ultrason, tomografi ve magnetik rezonans görüntüleme teknikleri tıp eğitiminin müfredatında temel prensipleri ile entegre olarak sunuluyorsa, aynı durum yakın gelecekte YZ teknolojisi için de beklenmektedir.

Acil tıpdaki mevcut YZ çalışmaları bazı özellikler bakımından belirli eğilimler göstermektedir. Bu alt başlıkları çalışma dizaynı, yeri, çıktısı, kullanılan YZ tekniği ve öğrenme tipi şeklinde özetlemek mümkündür (5). Örneğin çalışmaların çoğu retrospektif tanısal doğruluk çalışmalarıdır (%82,7). Verilerin toplandığı çalışma alanı %90'ında acil servis iken %10'u hastane öncesi koşullardır. Çalışma çıktılarının neredeyse yarısı öngörü modellemesi üzerine oluşturulmuştur. Geri kalan kısım ise tanısal ve triyaj odaklı çıktılardır. Kullanılan YZ tekniği çoğunlukla makine öğrenme alt tiplerine içir. YZ öğrenme tipi olarak ise sıklıkla etiketli veriler (labelled data) kullanılır ki, bu da sık kullanılan makine öğrenmede kullanılması gereken veri tipidir. Acil tıptaki YZ çalışmalarını tasarımı, çıktısı ve öğrenme stilleri gibi alt başlıklar gibi grup yerine hastanın acil servis içerisinde maruz kaldığı alt basamak kümelerine de indirgemek mümkündür (6). Bunlar hastane öncesi dönem, triyaj, acil servisteki tanısal ve terapötik işlemler, dokümantasyon ve hasta sonlanımıdır.

Sizlerle 2022 literatüründen bazı örnekleri değerlendirebiliriz. Birinci örnek hastane öncesi çalışmaları temsil etmektedir. Bu çalışmada toplu yaralanma olaylarında hastaların sayısını belirlemek için kullanılan bir akıllı gözlükten bahsedilmiş (7). İkinci örneğimizde yazarlar prospektif tek merkezi bir çalışma gerçekleştirmişler ve COVID-19 pandemisi sırasında acil servislerdeki hasta akış yönetimi için YZ teknolojisinden faydalanmışlardır (8).

Başka bir örneğimiz acil servisteki tanı ve tedavi işlemlerinin konu edildiği bir çalışmadır (9). Burada göğüs radyografilerinin raporlama doğruluğunu yine YZ teknolojileri ile değerlenmek ve kalitesini arttırılmak hedeflenmiştir. Aynı ana başlıkta vermek istediğiniz başka bir örnek ise Türkiye'de İzmir Kâtip Çelebi üniversitesinden bir acil tıp hekimi tarafından gerçekleştirilmiştir (10). Çalışmada direk radyografide skafoid kırıklarının tanısı için geliştirilmiş bir YZ sisteminin performansı araştırılmıştır. Sıradaki örneğimiz kayıt oluşturma/tutma çalışmalarının örneklerinden birisidir. Bu alt başlıkta görece daha az yayına rastlanmaktadır. Örneğimizde hekim-hasta arasındaki konuşmaların YZ sistemleriyle semptom belirleme ve not alma fonksiyonları değerlendirilmiştir (11). Son örneğimiz ise resüsitasyon işlemleri sırasında etik karar verme açısından yapay zekanın hekimlere yardımcı olup olamayacağı araştırılmıştır (12). Görüldüğü üzere YZ hasta bakımında acil serviste neredeyse tüm basamağa temas eden, etki gösterebilecek potansiyele sahiptir. Tüm bu çalışmalarda YZ teknolojilerinin performansının çok yüksek olduğu hatta hekimler ile karşılaştırma yapılanlarda hekimlerden daha iyi performans gösterdiği raporlanmıştır. Ancak bu çalışmaların çoğunun retrospektif olduğu, hekimlerle karşılaştırmaların sayıca az olduğu, modellerin validasyon eksiklikleri nedeniyle genellemelere müsait olmadığı ve çalışmaların yeniden üretilmesi için kısıtlılıklar olduğu unutulmamalıdır (5).

Sadece son 10 yılda bu kadar çalışmanın ortaya konması akıllara YZ'nin sadece kâğıt üzerinde mi olduğu sorusunu getirebilir (13). Elimizdeki verilere göre Amerika'da 222, Avrupa'da ise 240 tıbbi YZ teknolojisi onay almıştır (14). Teoriden pratiğe olan bu geçiş 2015 ile başlamış ve ivmeli şeklide devam etmektedir. Bu teknolojiler incelendiğinde ise çoğunluğunun radyoloji uygulamaları olduğu göze çarpar. Acil Tıp'a özgü 4 teknoloji bu onay alan teknolojiler arasındadır (15).

YZ teknolojilerinin teorideki başarılı performansı beraberinde bazı zorlukları ve endişe verici durumları da beraberinde getirir. Bunlar büyük verinin toplanması, büyük verinin nitelikli ve güvenilir olması, artefaktlı verinin işlenmesi, hasta gizliliği, veri güvenliği, kara kutu fenomeni (algoritmanın opaklığı), klinik pratiğe entegrasyonu, sorumluluk ataması çelişkileri ve algoritmanın hedefi (maliyet etkinlik vs. tıbbi bakım etkinlik) şeklinde özetlenebilir (6).

Çalışmalardan, literatür eğilimlerinden ve pratik uygulamalarından bahsetmişken kullanıcı yönünü atlamamak gerekir. Bu teknolojilerin son kullanıcısı hekim ve hasta grubu oluşturmaktadır. Yapılan çalışmalarda hastaların bu teknolojilerin kendi hasta bakımlarında kullanılmasına yönelik genelde isteksiz olduklarını, bunun temelinde ise bir makinenin insan sıcaklığına sahip olamayacağı düşüncesinin hâkim olduğu görülmüştür (16). Hekimler tarafında ise en çok endişe yaratan kısmın YZ teknolojilerinin kara kutu fenomeni olduğu ortaya konmuştur. Hekimlerin şahsi olarak hissettiği en büyük endişe ise işini kaybetme olasılığıdır.

Ülkemiz ne yazık ki YZ çalışma furyasında yerini tam gösterememektedir. Benzer projeleri ülkemizde gerçekleştirmek için çeşitli gereksinimlerin tamamlanması gerekir. Bunlar çalışma altyapısı (biyobanka, veri güvenliği, süper bilgisayarlar, mali destek, elektronik veri depolama ihtiyacı), veri toplamada disiplinler arası iş birliği, pratik veri toplama araçları (tablet, REDCAP gibi), hastane otomasyon sistemi ile entegre veri alışverişi, nitelikli ve tecrübeli araştırmacı kadrosu, multidisipliner çalışma pratiği ve etkin koordinasyon ve proje yönetim becerisi şeklinde özetlenebilir. Elbette yapılan çalışmanın niteliği ve içeriği bu listeyi kısaltabileceği gibi ek ihtiyaçlar da doğurabilir.

Özetlersek;

- YZ, her branş için yeni, popüler ve potansiyeli inanılmaz bir çalışma alanıdır
- Tüm tartışmalara rağmen Acil Tıp için ciddi potansiyeli mevcuttur
- YZ teknolojileri büyüyerek yakın gelecekte klinik pratiğimizde yerini almaya başlayacaktır
- Yok sayamayacağımız bu alan için ilk adım, güçlü bir alt yapıya sahip olmaktır

Dinlediğiniz için teşekkür eder, YZ farkındalığı için bir başlangıç noktası olmasını temenni ederim.

Referanslar

1. Bluemke DA, Moy L, Bredella MA, Ertl-Wagner BB, Fowler KJ, Goh VJ, et al. Assessing Radiology Research on Artificial Intelligence: A Brief Guide for Authors, Reviewers, and Readers-From the Radiology Editorial Board. Radiology. 2020;294(3):487-489. doi: 10.1148/radiol.2019192515.
2. Ramlakhan S, Saatchi R, Sabir L, Singh Y, Hughes R, Shobayo O, et al. Understanding and interpreting artificial intelligence, machine learning and deep learning in Emergency Medicine. Emerg Med J. 2022;39(5):380-385. doi: 10.1136/emermed-2021-212068.
3. Chan KS, Zary N. Applications and Challenges of Implementing Artificial Intelligence in Medical Education: Integrative Review. JMIR Med Educ. 2019;5(1):e13930. doi: 10.2196/13930.
4. Weisberg EM, Fishman EK. Developing a curriculum in artificial intelligence for emergency radiology. Emerg Radiol. 2020;27(4):359-360. doi: 10.1007/s10140-020-01795-0.
5. Kirubarajan A, Taher A, Khan S, Masood S. Artificial intelligence in emergency medicine: A scoping review. J Am Coll Emerg Physicians Open. 2020;1(6):1691-1702. doi: 10.1002/emp2.12277.
6. Grant K, McParland A, Mehta S, Ackery AD. Artificial Intelligence in Emergency Medicine: Surmountable Barriers With Revolutionary Potential. Ann Emerg Med. 2020;75(6):721-726. doi: 10.1016/j.annemergmed.2019.12.024. Epub 2020 Feb 21.
7. Apiratwarakul K, Cheung LW, Tiamkao S, Phungoen P, Tientanopajai K, Taweepworadej W, et al. Smart Glasses: A New Tool for Assessing the Number of Patients in Mass-Casualty Incidents. Prehosp Disaster Med. 2022;37(4):480-484. doi: 10.1017/S1049023X22000929.
8. Arnaud E, Elbattah M, Ammirati C, Dequen G, Ghazali DA. Use of Artificial Intelligence to Manage Patient Flow in Emergency Department during the COVID-19 Pandemic: A Prospective, Single-Center Study. Int J Environ Res Public Health. 2022;19(15):9667. doi: 10.3390/ijerph19159667.
9. Rudolph J, Huemmer C, Ghesu FC, Mansoor A, Preuhs A, Fieselmann A, et al. Artificial Intelligence in Chest Radiography Reporting Accuracy: Added Clinical Value in the Emergency Unit Setting Without 24/7 Radiology Coverage. Invest Radiol. 2022;57(2):90-98. doi: 10.1097/RLI.0000000000000813.
10. Ozkaya E, Topal FE, Bulut T, Gursoy M, Ozuysal M, Karakaya Z. Evaluation of an artificial intelligence system for diagnosing scaphoid fracture on direct radiography. Eur J Trauma Emerg Surg. 2022;48(1):585-592. doi: 10.1007/s00068-020-01468-0.
11. Scheder-Bieschin J, Blümke B, de Buijzer E, Cotte F, Echterdiek F, Nacsa J, et al. Improving Emergency Department Patient-Physician Conversation Through an Artificial Intelligence Symptom-Taking Tool: Mixed Methods Pilot Observational Study. JMIR Form Res. 2022;6(2):e28199. doi: 10.2196/28199.
12. Biller-Andorno N, Ferrario A, Joebges S, Krones T, Massini F, Barth P, et al. AI support for ethical decision-making around resuscitation: proceed with care. J Med Ethics. 2022;48(3):175-183. doi: 10.1136/medethics-2020-106786.
13. Moulik SK, Kotter N, Fishman EK. Applications of artificial intelligence in the emergency department. Emerg Radiol. 2020;27(4):355-358. doi: 10.1007/s10140-020-01794-1.
14. Muehlematter UJ, Daniore P, Vokinger KN. Approval of artificial intelligence and machine learning-based medical devices in the USA and Europe (2015-20): a comparative analysis. Lancet Digit Health. 2021;3(3):e195-e203. doi: 10.1016/S2589-7500(20)30292-2.
15. Benjamens S, Dhunnoo P, Meskó B. The state of artificial intelligence-based FDA-approved medical devices and algorithms: an online database. NPJ Digit Med. 2020;3:118. doi: 10.1038/s41746-020-00324-0.
16. Longoni C, Bonezzi A, Morewedge CK. Resistance to Medical Artificial Intelligence. J Consum Res. 2019;46(4):629-50. doi: 10.1093/jcr/ucz013.

DÜŞME RİSKİ DEĞERLENDİRMESİ VE ÖNLENMESİ

Dr. Mahmut YAMAN

Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Düşme Tanımı

Düşme tanımına ilişkin literatürde birçok farklı görüş bulunmaktadır. Dünya Sağlık Örgütü (WHO)'ne göre "kişinin kazara zemine ya da bulunduğu seviyeden daha alçak bir seviyeye hareketiyle gerçekleşen olay" olarak yapılmıştır. Başka bir çalışmada düşme tanımı, kişinin yere ya da bulunduğu düzeyden daha alçak bir düzeye hareketiyle sonuçlanan istemsiz, ani ve beklenmedik şekilde gerçekleşen olay olarak tanımlanmıştır.

Düşmeler Neden Önemlidir?

Düşmeler özellikle sonuçları ve maliyeti açısından önemlidir. Femur ve kalça kırıkları, düşme korkusu ve bağımsız hareket edebilme yeteneğinin azalması, mortalite gibi ağır ve önemli sonuçları olabilmektedir. Kliniklerde düşme oranları: Dahiliye servisinde 1000 hastada 6.12 ; Nöroloji servisinde 1000 hastada 6.12 ; Cerrahi servisinde 1000 hastada 2.18 ; Ortopedi servisinde 1000 hastada 0.8'dir. Düşmeler; Transferler sırasında (%37), Sandalyede oturmada (%20), Yürüme (%15) görülmektedir. Düşmelerden sonra bakım verilmesi için her yıl hasta başına ortalama 6 bin dolar harcandığı belirtilmiştir.

Düşme Riskini Arttıran Faktörler:

1) **İçsel Faktörler:** Daha önce düşme öyküsü olan(en önemli risk faktörüdür),yaş (65 yaş üstü), genel durum bozukluğu, ilaç tedavisi alma
2) **Dışsal Faktörler:** Kaygan zemin, ıslak zemin, yetersiz, aydınlatma, arızalı ekipmanlar, yatakların yüksek pozisyonda olması, yürümeye yardımcı araçlar,
3) **Kişisel Faktörler: Görme kaybı, baş dönmesi, duyma kaybı, fiziksel/duygusal kayıplar, kronik hastalıklar**
4) **Bilinç Durumu:** Konfüzyon, çevreyi tanımama, depresyon, uykusuzluk, kısa süreli hafıza kaybı, bilinç kaybı, senkop, düşme korkusu

Düşmelerin Önlenmesinden Kim(ler) Sorumludur?

Hastane Yönetimi, Kalite Yönetim Birimi/Hasta Güvenliği Komitesi, Sağlık Çalışanları (Doktor, hemşire, hasta transfer personeli, temizlik personeli vb.) sorumludur. Düşmelerin önlenmesinde primer sorumlu, klinikte hastaya 24 saat bakım veren Hemşire'dir

Düşmeler, Yönetmelik Merceğinde! (27214 sayılı Resmi Gazete, 29 Nisan 2009)

Sağlık kurum ve kuruluşlarında hasta ve çalışan güvenliğinin sağlanması ve korunmasına yönelik usul ve esaslar hakkında tebliğ yayınlanmıştır. Hasta güvenliği hedefleri kapsamında düşmelerin önlenmesine yönelik işlemler belirlenmiştir.

Düşme Riski Ne Zaman Değerlendirilmelidir?

Yatan hastaların bölüme ilk kabulünde, post operatif dönemde, bölüm değişikliğinde, hasta düşmesi durumunda, transfer sırasında değerlendirilmelidir.

Düşme Riskinin Değerlendirilmesi

İlk değerlendirme; Hastanın servise kabulü hemşire tarafından yapılır. Erişkin hasta ise **İtaki Düşme Riski Ölçeği**, Çocuk hasta ise Harizmi Düşme Riski Ölçeği kullanılır. Düşme riski değerlendirmesi sonucunda yetişkin hasta-

larda 5 ve 5'in üstü, 0-16 yaş grubu hastalar için değerlendirme puanı 15 ve üstünde olan hastalar yüksek riskli kabul edilir. Yoğun bakım bölümlerinde yatmakta olan tüm çocuk hastalar yüksek riskli kabul edilmeli, ancak dört yapraklı yonca sembolü kullanılmamalıdır.

Düşmeler Nasıl Önlenebilir?

Ameliyat sonrasında hasta ilk defa ayağa kalkıyorsa hastalara mutlaka eşlik edilmelidir. Hasta hemşire deskine yakın bir odaya alınır. Hasta yalnız bırakılmaz. Saat başı ziyaret edilir. Odasının kapısı açık tutulur. Islak zemin var ise silinmesi sağlanır. Yatak ve tekerlekli sandalyeler kilitlenir. Sedye ve yatak korkulukları çalışır durumda olmalıdır. Merdiven ve koridorlar yeterli aydınlatılmalıdır. Açma kapama düğmeleri kolay bulunmalıdır.

KAYNAKLAR

1. Alexander, B.H, Rivara, F.P, Wolf, M.E.(1992). " The Cost and Frequency of Hospitalization for Fall- Related Injuries in Older Adults". American Journal of Public Health; 1992; 82 (7): 1020-1022.
2. Arslan, Ş.,Atalay, Ş.,Gökçe – Kutsal, Y.(2002). " Drug Use in Older People". Journal of American Geriatric Society. 50:1163-1164.
3. Choi, H, Trent, R, Nishita, C, Pynoos, J. (2007). "Falls Among Older Adults in California: Public Health Surveillance Issues".www.stopfalls.org.
4. Davenport, RD, Vaidean, GD, Jones, CB, Chandler, M, Kessler, LA, Mion, LC, Shorr, RI. (2009). " Falls Following Discharge After an in-Hospital Fall". BMJ,9:53. 1-7.
5. Evans, D, Hodgkinson, B, Lambert, L, Wood, J., Kowanko, I. (1998). " Falls in Acute Hospitals A Systematic Review". Published By The Joanna Brings Institute For Evidence Based Nursing and Midwifery First Published, South Australia.
6. Kerzman H, Chetrıt A, Brın L, Toren, O. (2004). "Characteristics of Falls in Hospitalized Patients". Journal of Advanced Nursing, 47(2); 223–229.
7. Nakai A, Akeda M, Kawabata I. Incidence and Risk Factors for Inpatient Falls in an Academic Acute-care Hospital. Journal of Nippon Medical School. 2006;73(5):265-70.
8. 27214 sayılı T.C. Resmi Gazete, 29 Nisan 2009
9. Usta D, Altinok Ersoy N, Akyürek Y, Korkmaz F, Akyar I, Tanrıöver M. Bir Üniversite Hastanesinde Düşme Olay Bildirimlerinin Analizi2019.

Global mental health disorders: should we create a common language?

Mehmet Göktuğ Efgan

Mental health is defined as a person's being at peace with himself, the people around him and the society, and his ability to maintain the necessary effort to maintain balance, order and harmony (1). When a person's mental health deteriorates, inconsistency in his feelings, thoughts and behaviors and incompatibility with his environment begin to emerge. Whether or not this condition is characterized as a mental disorder depends on the duration of the condition, the environment and society, as well as the severity of the condition and the person's connection with reality (1) (2). As can be seen, society and the environment have an important place in the protection of mental health.

Global mental health is the field of application of global health practices to mental health. Global health, which aims to improve the health level of all people in the world and to provide equality in the field of health; It is the field that conducts studies and develops practices and policies for this purpose (3). Studies conducted between rich and poor countries on this subject show that; The most striking inequality among people with mental disorders concerns the importance given to the personal care of individuals and the respect for their rights. Low- and middle-income countries have less than 20% of the resources allocated for mental health, despite being home to more than 80% of the world's population (4). This unbalanced distribution is against basic human rights. According to World Mental Health studies conducted in low- and middle-income countries, 75% of those diagnosed with severe anxiety, mood disorder, impulse control or substance use disorder do not receive any treatment despite having significant health problems (5). Priority of the global mental health field to date; major treatment gaps arising from moral and ethical problems in low- and middle-income countries. However, there are many patients who cannot receive adequate service in countries with high income levels. It has been shown that the provision of mental health care in these patients and the quality of the care provided are lower than in other segments of the society (3).

In today's increasingly globalized world, the effects of mental health independent of nations and nations need to be addressed more and more. Apart from the known economic inequality; The effects of migration, wars, epidemics and trade policies on global mental health are striking (3). Today, the direct and indirect effects of the COVID-19 pandemic, which still has extensions, on global mental health continue. In addition, recently ended or still ongoing wars in the world and the migrations they caused have had an impact on global mental health.

The isolation at home brought by the Covid-19 pandemic, the increase in patients in health institutions and the effects of the disease have also caused deterioration in global mental health. Studies on this subject have reported the effects of isolation, the psychological changes it creates in children and adult groups, and also the psychological effects on healthcare workers (6) (7). Studies have reported that the global economic crisis caused by the pandemic caused mental health disorders (8). Due to the effects of these disorders all over the world, common solutions have been proposed. In the recent period, especially the migrations due to wars and the immigration problem that emerged as a result of this situation, have been influential all over the world. In particular, the mental health disorders experienced by immigrants and their effects on society have been shown in studies (9) (10). Suggestions were made regarding the common path to be followed.

As a result; In addition to a better understanding of the causes of mental disorders, researching cost-effective and effective treatments for these disorders is important in terms of improving the lives of individuals living with these disorders in all countries. It has been reported that this is one of the main targets of studies on global mental health disorders (3). For global-scale problems, it is necessary to implement global-scale solutions. For this reason, creating a common language in global mental health disorders will help us to reach a solution.

REFERENCES

1. Köknel, Ö. (1989). Genel ve klinik psikiyatri. Nobel Tıp Kitapevi, İstanbul.
2. Öztürk MO. Ruh sağlığı ve bozuklukları. Altıncı baskı. Ankara. Hekimler yayın birliği. 1995. S:101-113.
3. Patel V, Prince M. Global mental health: a new global health field comes of age. JAMA. 2010 May 19;303(19):1976-7. doi: 10.1001/jama.2010.616. PMID: 20483977; PMCID: PMC3432444.
4. Saxena S, Thornicroft G, Knapp M, Whiteford H. Resources for mental health: scarcity, inequity, and inefficiency. Lancet. 2007 Sep 8;370(9590):878-89. doi: 10.1016/S0140-6736(07)61239-2. PMID: 17804062.
5. Demyttenaere K, Bruffaerts R, Posada-Villa J and et al. WHO World Mental Health Survey Consortium. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. JAMA. 2004 Jun 2;291(21):2581-90. doi: 10.1001/jama.291.21.2581. PMID: 15173149. : yazarı bilinmiyor.
6. İlbasmış, Ç., Aksoy, A. T., Cihanyurdu, İ., Ünver, H., & Rodopman, A. (2021). COVID-19 salgınının çocukların ruh sağlığı üzerindeki etkileri. Turk J Child Adolesc Ment Health, 28(Suppl 1), 1-3.
7. Tükel, R. (2020). COVID-19 Pandemi Sürecinde Ruh Sağliği. Türk Tabipleri Birliği. COVID-19 pandemisi altinci ay değerlendirme raporu. Istanbul, 617-628.
8. Kapar, R. (2012). Ekonomik Krizlerin Çalışanların Sağlığı ve Güvenliği Üzerindeki Etkileri. Calisma ve Toplum, 34(3).
9. Handan, Ö., & Cerit, C. (2018). Savaş nedeniyle Türkiye'ye göç ederek insani yardım kuruluşunda çalışan Suriyeli mültecilerde travma sonrası stres bozukluğu ve ilişkili etmenler. Kocaeli Üniversitesi Sağlık Bilimleri Dergisi, 4(3), 70-73.
10. Başterzi, A. D. (2017). Mülteci, sığınmacı ve göçmen kadınların ruh sağlığı. Psikiyatride Güncel Yaklaşımlar, 9(4), 379-387.

Santral Venöz Kateter ve Diyaliz Kateteri Nereden Yapalım ?

Oğuzhan Bol

Hastalar sıklıkla, devam eden hemodinamik izlem, zor venöz erişim veya uzun süreli intravenöz tedavi (örn., antimikrobiyal tedavi, sıvı tedavisi, kemoterapi) dahil olmak üzere endikasyonlar için santral venöz erişime ihtiyaç duyarlar.

- Her biri kendi riskleri ve faydaları olan çeşitli santral venöz erişim cihazları mevcuttur.
- Santral venöz erişim cihazları genellikle kateter kullanım süresine, yerleştirme tipine, yerleştirme konumuna, lümen sayısına ve ayrıca kateterin implante edilip edilmediğine göre sınıflandırılır.
- Tünelsiz santral kateterler venöz kanülasyon bölgesinin (juguler, subklavian, femoral) yakınına perkütan olarak yerleştirilir.
- Bu kateterler en yaygın olarak geçici venöz erişim için kullanılır.
- Tünelsiz kanüller tek, çift, üçlü veya dörtlü lümenli olabilir.
- Genel olarak, lümen sayısı arttıkça kateterin toplam çapı artar ve bireysel lümen kanallarının çapı genellikle azalır.
- Hemodiyaliz ve aferez kateterleri, yüksek akış hızlarında büyük hacimlerde kan değişimi için tasarlanmış özel, geniş çaplı tünelli çift lümenli kateterlerdir.
- Santral venöz kateterler esas olarak internal juguler ven, subklavian ven veya femoral ven yoluyla yerleştirilir.
- Santral venöz kanülasyon için en uygun yerin seçimi, operatörün uzmanlığına ve becerisine, hasta anatomisine (ör. bilinen venöz tıkanıklık, lenfödem varlığı), yerleştirmeyle ilişkili risklere (ör., koagülopati, akciğer hastalığı), erişim gereksinimlerine, (örn. hasta ihtiyaçları ve kateter kullanım süresi) ve cihaz tipine dayanır (örn. tünelli kateter, implante edilmiş port) .
- İğne giriş yeri, kontamine olmayan veya potansiyel olarak kontamine olmayacak bir alanda seçilmelidir.
- Lokal anatomisi değiştirilmiş erişim bölgeleri (örn., önceki köprücük kemiği kırığı), önceki erişimden çok sayıda yara izi ve başka bir santral venöz kateter veya cihazın (kalp pili veya dahili defibrilatör gibi) varlığı, daha yüksek erişim başarısızlığı, malpozisyon, aritmi ve diğer komplikasyonlar için kaçınılmazdır.
- İnternal juguler venöz erişim (özellikle sağ taraflı) düşük kateter malpozisyon oranı ile ilişkilidir ve ilaç uygulaması veya transvenöz pacing gibi acil kullanım için güvenilir konum gerektiren durumlarda yaygın olarak kullanılır.
- İnternal juguler vene santral, posterior veya anterior yaklaşımla erişilebilir.
- Genel olarak juguler venöz erişime yönelik nispi kontrendikasyonlar arasında koagülopati, önceki denemeler , bölgede başka bir cihazın varlığı ve değişen lokal anatomi yer alır.
- Juguler ven çapını maksimuma çıkaran hasta konumlandırması, kanülasyon başarısı ile ilişkilidir. Bu, öncelikle tolere edildiğinde Trendelenburg pozisyonu ve uygun boyun pozisyonu ile gerçekleştirilir.
- Juguler venin çapı solunum döngüsüne göre değişir.
- Hastanın başının konumu da juguler ven çapını ve karotid arter ile ilişkisini etkiler.

Bölge	Avantaj	Dezavantaj
External Juguler	Genellikle görülebilen yüzeysel damar Koagülopati engelleyici değil Minimal pnömotoraks riski (özellikle USG rehberliğinde) Yatak başı erişim Yaşlı erişkin hastalarda belirgin Hızlı venöz erişim	Uzun süreli venöz erişim için ideal değil Obeziteli hastalarda tespit kolay değil Yüksek malpozisyon oranı Kateterin ilerletmek zor olabilir
İnternal Juguler	Minimal pnömotoraks riski (özellikle USG rehberliğinde) Yatak başı erişim Prosedüre bağlı kanama doğrudan basınca uygun Acemi operatörlerde bile daha düşük başarısızlık oranı USG rehberliğini kullanarak mükemmel hedef	Uzun süreli erişim için ideal değil Karotis arter ponksiyon riski Rahatsız Pansuman ve kateter bakımı zor Solda torasik ductus yaralanması riski Obezite/ödemli hastalarda tespiti zor Eşlik eden trakeostomi ile olası erişim ve bakım sorunları Hipovolemi ile kollabe olmaya eğilimli damar Hava yolu kontrolü sağlanırken acil durumlarda zor erişim
Subklaviyan	Pansumanların bakımı daha kolay Hasta için daha rahat Obez hastalar için daha uygun Hava yolu kontrolü sağlanırken erişilebilir Daha düşük kateterle ilişkili enfeksiyon insidansı ile ilişkilidir	Artmış pnömotoraks riski Prosedürle ilgili kanama doğrudan basınca daha az uygun Tecrübesizlikle azalan başarı oranı Deriden damara daha uzun yol Kateter malpozisyonu daha yaygın (özellikle sağ SCV) Göğüs kompresyonlarına engeldir Gelecekteki hemodiyaliz arteriyovenöz erişimini etkileyen stenoz/oklüzyon riski
Femoral	Yüksek başarı oranı ile hızlı erişim CPR ile etkileşime girmez Entübasyonu engellemez Pnömotoraks riski yok Yerleştirme sırasında trendelenburg pozisyonu gerekli değil	CPR sırasında ilaçların gecikmiş sirkülasyonu Hasta mobilizasyonunu önler Alanı steril tutmak zor Pulmoner arter kateter yerleştirilmesi zor Artan iliofemoral tromboz riski

- Sağ internal juguler ven kanülasyonu, sağ taraf veninin daha büyük çapı, superior vena kavaya daha doğrudan ulaşımı, sağ plevranın daha düşük yüksekliği, torasik kanalın olmaması ile göreceli olarak sola tercih edilir.
- Santral yaklaşım: Klavikula ve SCM başının apeksinin 1 cm yukarısından aynı taraf meme ucu hizasına 30-45 derece (3 cm içerisinde kanın geldiği görülmeli).
- Lateral/posterior yaklaşım : SCM posterior sınırı boyunca klavikuladan 2-3 parmak yukarısından sternal çentiğe doğru (5 cm içerinde kanın geldiği görülmeli).
- Anterior yaklaşım: SCM medial sınırı ile karotis arterin lateralinden aynı taraf meme ucuna.

Subklavyen yol

- Sağ atriyuma giden daha kısa ve daha doğrudan yol göz önüne alındığında, sol subklavyen erişim bölgesi, pulmoner arter kateterlerinin, geçici transvenöz pacer elektrotlarının ve implante edilebilir pacer ve defibrilatörlerin yerleştirilmesi dahil olmak üzere kardiyak erişim için özellikle uygundur.
- Subklavyen vene supraklaviküler, infraklaviküler veya aksiller yaklaşımla erişilebilir.
- Sağ subklavyen anatomi, alt plevral apeks ve torasik kanalın olmaması nedeniyle daha düşük pnömotoraks riskinin teorik avantajını taşır. Bununla birlikte, bu giriş yeri daha yüksek kateter malpozisyonu ve damar travması oranları ile ilişkilidir
- Subklavyen erişim bölgesi, akut hemodiyaliz veya aferez için kullanılan kısa, nispeten sert kateterler için de uygun değildir. Bu kateterler, brakiyosefalik venden superior vena kava eğrisini geçmek için gereken esnekliğe sahip değildir. Santral damarlarda perforasyon meydana gelebilir.
- Juguler venden farklı olarak, Trendelenburg pozisyonu subklavyen çapı önemli ölçüde etkilemez, ancak Trendelenburg pozisyonu hava embolinin önlenmesine yardımcı olabilir

Femoral Yol

- Daha yüksek komplikasyon oranları nedeniyle femoral ven kanülasyonunun genellikle daha az arzu edil-

diği düşünülse de, özellikle acil veya acil durumlarda femoral venler güvenilir bir merkezi venöz giriş yeri olmaya devam etmektedir.

Hemodiyaliz

- Hemodiyaliz, minimum komplikasyonla haftada üç kez üç ila dört saat boyunca 300 mL/dk'nın üzerinde hızlı ekstrakorporeal kan akışı sağlayabilen merkezi damarlara erişim gerektirir.
- Hemodiyaliz kateterleri, iki porta (mavi ve kırmızı renkli) bağlı diyaliz devresi için iki lümene sahiptir. Geleneksel olarak, kırmızı port vücuttan kan çeken "arteriyel" lümeni tanımlar ve mavi port, diyaliz makinesinden hastaya kan dönüşü için "venöz" lümeni tanımlar.
- Sağ internal juguler ven, ayaktan hastalarda hemodiyaliz erişimi (tünelsiz ve tünelli hemodiyaliz kateterleri) için tercih edilen damardır, çünkü damar doğrudan superior vena kavaya giden düz bir yol izler
- Femoral ven, yataktan kalkamayan hastalarda yoğun bakım ortamında tünelsiz kateter yerleştirilmesi için yaygın bir yerdir. Tünelli kateterler genellikle santral ven trombozu veya stenoz internal juguler yerleşimi engellediğinde femoral vene yerleştirilir.
- Tünelsiz internal juguler hemodiyaliz kateterlerinin ucu distal superior vena cava'ya yerleştirilmelidir; Tünelsiz kateterlerin sertliği nedeniyle atriyal yerleşimden kaçınılır.

Thrombolytic therapy updates

Prof.Dr. Nurşah BAŞOL

Thrombolytic therapy, also known as clot busting drug, is a breakthrough treatment which has saved untold lives. It has been used in the clinical area to treat venous and arterial thromboembolic complaints which are a foremost cause of death. Thrombosis is a significant physiological response that limits hemorrhage caused by large or tiny vascular injury. Thrombolytics afford longer-term benefits for survivors, who have just a 5% mortality rate at one year. Thrombolytic agent is commonly used for venous thrombosis, pulmonary embolism, myocardial infarction, arterial thromboembolism. There are two ways thrombolytic agents can be given: systemic administration through a peripheral IV or local release by a catheter after navigating to the site of the clot. Thrombolytic or fibrinolytic agents are often referred to as plasminogen activators. All of the available thrombolytic agents are serine proteases that cleave plasminogen into active plasmin. Currently, available thrombolytic agents include Streptokinase, Alteplase, Reteplase, Tenecteplase, Urokinase, Prourokinase and Anistreplase (APSAC). These drugs have the ability to activate the body's natural fibrinolytic system. When plasminogen is converted to plasmin, it becomes a proteolytic agent capable of digesting fibrin, fibrinogen, prothrombin and Factors V & VIII. Fresh fibrin clots are lysed with the generation of fibrin degradation products. Urokinase activates plasminogen directly by peptide bond cleavage at two different sites on the plasminogen molecule. Streptokinase is an indirect activator. Initially it combines with plasminogen to form an activator complex. This complex then converts free plasminogen to plasmin. Coagulation abnormalities should return to normal within several hours of discontinuing treatment. Urokinase has a half-life of 16 minutes, while streptokinase has two half-lives. The first is 18 minutes and represents clearance after binding with antistreptokinase antibodies. The second involves the metabolism and excretion of the unbound drug and is not well understood. Streptokinase has a half-life of 83 minutes by this mechanism. Thrombolytic therapy began in 1946, when Tillett and Sherry began an investigation of the clinical potential of partially purified streptokinase preparations for dissolving clotted blood and fibrinous exudates in patients. First it was used on patients with myocardial infarction. Now, it is an important reperfusion strategy in settings where primary PCI cannot be offered in a timely manner, and prevents 30 early deaths per 1000 patients treated within 6 h after symptom onset. The largest absolute benefit is seen among patients at highest risk, including the elderly, and when treatment is offered <2 h after symptom onset. Fibrinolytic therapy is recommended within 12 h of symptom onset if primary PCI cannot be performed within 120 min from STEMI diagnosis and there are no contraindications. The later the patient presents (particularly after 3 h), the more consideration should be given to transfer for primary PCI (as opposed to administering fibrinolytic therapy) because the efficacy and clinical benefit of fibrinolysis decrease as the time from symptom onset increases. In the presence of contraindications for fibrinolytic treatment, it is important to weigh the potentially life-saving effect of fibrinolysis against potentially life-threatening side effects, taking into account alternative treatment options such as delayed primary PCI.

According to recent guideline in patients with acute PE associated with hypotension (eg, systolic BP < 90 mm Hg) who do not have a high bleeding risk, it suggests systemically administered thrombolytic therapy over no such therapy (weak recommendation, low-certainty evidence). It doesn't offer a spesisifc agent or doesn't comment about dosing strategy. Another recommendation is "in most patients with acute PE not associated with hypotension, we recommend against systemically administered thrombolytic therapy (strong

recommendation, low-certainty evidence)." This recommendation was "weak" before.

Intravenous thrombolytic therapy is the mainstay of treatment for acute ischemic stroke, provided that treatment is initiated within 4.5 hours of clearly defined symptom onset Because the benefit time-dependent, it is critical

to treat patients as quickly as possible. In recent guideline, there are some new informations about patients with late duration fo symptom onset.

In this presentation, especially indications of thrombolytic therapy for pulmonary embolism, myocardial infarction and acute ischemic stroke will be explained according to recent guidelines. .

References:

1- 2019 ESC **Guidelines** for the diagnosis and management of acute **pulmonary embolism** developed in collaboration with the European Respiratory Society (ERS). Konstantinides SV, Meyer G, Becattini C, Bueno H, Geersing GJ, Harjola VP, Huisman MV, Humbert M, Jennings CS, Jiménez D, Kucher N, Lang IM, Lankeit M, Lorusso R, Mazzolai L, Meneveau N, Ní Áinle F, Prandoni P, Pruszczyk P, Righini M, Torbicki A, Van Belle E, Zamorano JL; ESC Scientific Document Group.Eur Heart J. 2020 Jan 21;41(4):543-603. doi: 10.1093/eurheartj/ehz405.

2- **Antithrombotic Therapy** for **VTE** Disease: Second Update of the CHEST Guideline and Expert Panel Report. Stevens SM, Woller SC, Kreuziger LB, Bounameaux H, Doerschug K, Geersing GJ, Huisman MV, Kearon C, King CS, Knighton AJ, Lake E, Murin S, Vintch JRE, Wells PS, Moores LK.Chest. 2021 Dec;160(6):e545-e608.

3- **Guidelines** for the Early Management of Patients With **Acute Ischemic Stroke**: 2019 Update to the 2018 **Guidelines** for the Early Management of **Acute Ischemic Stroke**: A Guideline for Healthcare Professionals From the American Heart Association/American **Stroke** Association. Powers WJ, Rabinstein AA, Ackerson T, Adeoye OM, Bambakidis NC, Becker K, Biller J, Brown M, Demaerschalk BM, Hoh B, Jauch EC, Kidwell CS, Leslie-Mazwi TM, Ovbiagele B, Scott PA, Sheth KN, Southerland AM, Summers DV, Tirschwell DL.Stroke. 2019 Dec;50(12):e344-e418.

4- **European Stroke** Organisation (ESO) **guidelines** on intravenous thrombolysis for **acute** ischaemic **stroke**. Berge E, Whiteley W, Audebert H, De Marchis GM, Fonseca AC, Padiglioni C, de la Ossa NP, Strbian D, Tsivgoulis G, Turc G.Eur Stroke J. 2021 Mar;6(1):I-LXII. doi: 10.1177/2396987321989865.

5- **2017 ESC** Guidelines for the management of **acute myocardial infarction** in patients presenting with ST-segment elevation: The Task Force for the management of **acute myocardial infarction** in patients presenting with ST-segment elevation of the European Society of Cardiology (**ESC**). Ibanez B, James S, Agewall S, Antunes MJ, Bucciarelli-Ducci C, Bueno H, Caforio ALP, Crea F, Goudevenos JA, Halvorsen S, Hindricks G, Kastrati A, Lenzen MJ, Prescott E, Roffi M, Valgimigli M, Varenhorst C, Vranckx P, Widimský P; ESC Scientific Document Group.Eur Heart J. 2018 Jan 7;39(2):119-177. doi: 10.1093/eurheartj/ehx393.

Özofageal, Rektal, Göz, Burun Ve Kulaktan Yabanci Ci□si□m Çikaralim Mi?

Uzm. Dr. Ahmet Melih Savaş

Amasya Merzifon Kara Mustafa Paşa Devlet Hastanesi Acil Servis

GİRİŞ

Acil servislerde vücutta bulunan yabancı cisim şikayeti ile sık karşılaşılır. Temel olarak yabancı cisimler canlı ve cansız veya organik ve inorganik olarak sınıflandırılır. Genel olarak yabancı cismin cinsi, bulunduğu bölge ve bulgulara göre acil serviste çıkarılması, ilgili uzman tarafından çıkarılması veya aciliyet olmayan durumlarda hastanın ilgili uzmana yönlendirilmesi gerekir.

GÖZDE YABANCI CİSİM

Gözde yabancı cisimler genellikle kornea-konjonktiva içine gömülü metal, ahşap veya plastik küçük parçalardır. Genelde yüzeyel ve iyi huyludur ancak glob içerisine penetre olan yabancı cisimler görme kaybına yol açabilir. Taşlama, metal çekiçleme gibi durumlarda yüksek hızlı cisimle globa penetran yaralanmalar olabilir.

Amerika Birleşik Devletleri'nde her yıl yaklaşık 1 milyon göz yaralanmasına bağlı acil servis ziyareti gerçekleşmektedir ve bu, tüm acil servis ziyaretlerinin %2'sinden azını temsil etmektedir; bu yaralanmaların çoğu hastaneye yatmayı gerektirmemekte ve görme bozukluğuna neden olmamaktadır. [1] Türkiye'de bir merkezde acil serviste tedavi edilen gözde yabancı cisim olguları ile ilgili yapılan bir çalışmada hastaların sadece %10'u hastaneye yatış gerektirmiş ve %2.3'ünde komplikasyon görülmüş. [2]timing of the injury, injury type (open- or closed-globe injuries

Klinik

- Göz kırpma esnasında yabancı cisim hissi, gözde kızarıklık, ağrı, gözyaşı, bulanık görme, ve fotofobi gibi belirtiler mevcuttur. Göz kapakları, kornea ve konjonktivada ödem görülür.
- Bazı yabancı cisimler çıplak gözle görülebilir. Olabilecek diğer yabancı cisimleri tanımlamak ve çıkartmak için göz kapağı dışa çevrilmelidir.

- Metalik yabancı cisim birkaç saat ve daha fazla gözde kalmışsa, metal çevresinde kornea için toksik bir pas halkası gelişir. [3]
- Hifema varlığı glob perforasyonunu gösterir.

Tanı

- Globa penetrasyon söz konusuysa ilk olarak orbita ön-arka-yan grafi görülebilir.

- Küçük yabancı cisimleri ve glob rüptürü gibi komplikasyonları gösteren avantajları göz önüne alındığında, özellikle intraoküler penetrasyon şüphesi olduğunda BT en iyi yaklaşımdır.[4]

- Ultrason, lokalize edilmesi zor yabancı cisimleri olan hastalarda yararlı bir yardımcıdır.
- Metalik yabancı cisim riskinden dolayı MR önerilmez.

Ayırıcı Tanı

Göz yabancı cisimlerinin ayırıcı tanılarında korneal abrazyon, laserasyon, konjunktivit, iritis, glokom, üveit ve glob perforasyonu bulunur.

Tedavi

- Öncelikle lokal anestezikler uygulanmalıdır. Fakat göze ilaç damlatmadan önce göz içi penetran glob yaralanmasını ekarte etmek önemlidir.
- İlk olarak serum fizyolojik ile irrige edilmelidir. Yüzeyel yabancı cisimler irrigasyonla temizlenebilir.
- Sonrasında ıslatılmış bir pamuk aplikatör ile yabancı cisim yerinden oynatılmaya çalışılmalıdır.
- Küçük korneal yabancı cisimlerde, topikal göz anestezisi uygulandıktan sonra, genellikle nesnenin bir ucunun altına hafifçe girmek ve dışarı doğru itmek için bir göz çubuğu veya küçük çaplı tüberkülin şırınga iğnesi kullanılması gereklidir.
- Pas halkası varsa küret veya oftalmik çapak temizleyiciler ile yüzeyel pas çıkarılabilir. Metalik yabancı cisim çıkarıldıktan sonra pas halka alanı gece boyunca yumuşar ve ertesi gün daha kolay çıkarılabilir. Bu nedenle hastayı ertesi gün bir göz doktoru görebilecekse pas halkasının acil serviste temizlenmesi gerekli değildir. Pas halkalarının daha geç çıkarılması durumda lekenmeye neden olan demir çürümesi, kronik inflamasyon, korneal nekroz gibi komplikasyonlar gelişebilir.[5]
- Yabancı cisim çıkarılırken konjonktival hemoraji, korneal abrazyon-laserasyon, hifema, enfeksiyon, çıkarılamamış yabancı cisim gibi komplikasyonlar olabilir.
- Tam kat penetre olmuş, sıkıca yapışık olan derin yabancı cisimlerde, büyük yabancı cisimlerde, görme bozukluğu olan hastalarda, hifema varlığında, kornea-sklera laserasyonunda ve kornea ameliyatı öyküsü olan hastalarda göz hastalıkları konsültasyonu istenmelidir.
- Yabancı cisim çıkarıldıktan sonra topikal antibiyotikler, sikloplejikler, oral analjezikler reçete edilerek ve gerekli durumlarda tetanoz aşısı yapılarak hasta taburcu edilmelidir.
- Yabancı cisim merkezi görsel eksende veya çıkarılamayan bir pas halkası varsa 24 saat içerisinde mutlaka göz hastalıklarına yönlendirilmelidir.

BURUNDA YABANCI CİSİM

Burunda yabancı cisimler daha çok çocuklarda görülse de psikiyatrik ve zihinsel engelli yetişkinlerde de görülebilir. [6] En sık olarak çakıl taşları, boncuk, fındık, tebeşir gibi küçük nesneler görülür. Burnuna yabancı cisim aspire eden çocuklar genelde kulağına yabancı cisim sokanlara göre daha küçük yaştadırlar.[7] Nazal yabancı cisimler genellikle iyi huyludur ve acil müdahele gerektirmez fakat bazı nesneler ciddi hasara neden olabilir ve acil olarak çıkarılması gerekir. Bunlar arasında piller ve mıknatıslar gibi yabancı cisimler bulunur.[8]

Yabancı cisimler nazal fossada genellikle alt konka tabanı veya orta konkanın ön tarafında bulunurlar.

Bazı yabancı cisimler zarar vermeden burun boşluğunda kalırken, başta organik cisimler olmak üzere diğer cisimler mukozanın şişmesine neden olarak mukozal erozyonlara, ülserasyonlara ve burun kanamalarına neden olabilir. Bu durum genellikle organik yabancı cisimlerin çevre dokudan suyu emmeye ve şişmeye meyilli olduklarından görülür. Bu yabancı cisimler mineral birikiminden dolayı sert cisimlere dönüşme eğilimi gösterir ve böylece daha fazla zarara neden olan bir rinolit haline gelir. [8]

Klinik

- Lokal ağrı
- Burun tıkanıklığı, hapşırma
- Aspirasyon
- Tek taraflı pürülan burun akıntısı
- Tekrarlayan tek taraflı burun kanaması
- Yabancı cisim canlıysa belirtiler genellikle iki taraflıdır.
- Burunda yabancı cisim olan çocukların çoğu asemptomatiktir.[9]

Tanı

- Direkt bakı
- Düz radyografi; yabancı cisim belirlenmesi için etkili fakat bir çok nesne radyoopak değildir.[10]followed by foam, paper, or tissue fragments (23%
- Sinüs içi yabancı cisimlerden şüphelenildiğinde BT faydalı olabilir.

Ayırıcı Tanı

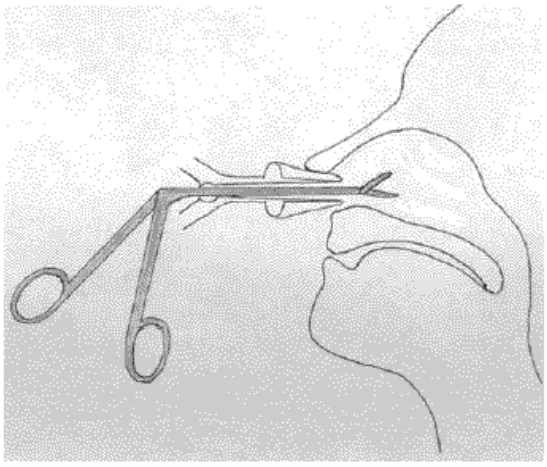
Burun yabancı cisimlerinin ayırıcı tanıları burun polipleri, septal hematom, burun tümörleri, rinit ve epistaksistir.

Tedavi

- Öncelikli olarak daha az invaziv ve vakaların yarısından fazlasında başarılı olan pozitif basınçlı teknikler kullanılır. [3] Bu yöntemler;
    - Etkilenmeyen burun deliğini kapatarak veya ağzını kapatarak sümkürtmek
    - Etkilenmemiş burun deliğini kapatarak oral pozitif basınç uygulamak (parent kiss) veya aynı mantıkla balon valf maske kullanmak

- İnvaziv yöntemlerde immobilizasyon için sedasyon kullanılır. Nazal mukozaya topikal 1% lidokain ve 0,5% fenilefrin uygulanır. Fenilefrin inflamasyonlu nazal mukozayı küçültür, yabancı çişimin çıkarılmasını kolaylaştırır ve epistaksis oluşma riskini azaltır.

    - Forseps metodu
        - Yabancı cisim anterior burun deliğine yakın ise en iyi timsah forsepsi (Hartmann forsepsi) kullanılır.



A foreign body is removed using alligator forceps and nasal speculum.

    - Foley kateter metodu: kayganlaştırılmış 5-6 french balonlu foley kateter ile yabancı cisim geçilir, balon hava ile şişirilir ve yavaşça kateter çekilir.

(Resim A) Ekipmanlar, (Resim B) Her çocuğa özel gerekli balon boyutunun belirlenmesi, (Resim C) Balon, önceden belirlenmiş yerleştirme uzunluğu elde edildiğinde şişirilir. (Resim D) Nazik çekiş ile yabancı cisim çıkarılır.[11]

    - Vakumlu kateter metodu

- Acil hekimleri burun yabancı cisimlerinin çıkarılmasında oldukça başarılıdır, çoğunlukla sekelsiz olarak çıkarılır ve nadiren konsültasyon ihtiyacı duyarlar. [4] Ancak yabancı cismin çıkarılmasında zorluk ve

aspirasyon riski olan durumlarda, derin yerleşimli yabancı cisimlerde, düğme pil ve mıknatıs gibi yabancı cisimlerde kulak burun boğaz konsültasyonu istenmelidir.

- Eğer irrigasyon yapıldıysa ve yabancı madde pirinç, sebze parçası, sünger gibi şişebilen bir nesne ise yabancı madde şişer ve çıkması zorlaşır.
- Yabancı cisim kırılgan ise parçalanma ve parçanın burunda kalma riski mevcuttur. Yabancı cismin çıkarılamaması, aspirasyon, epistaksis, laserasyon ve nadiren septal perforasyon gibi komplikasyonlar olabilir.
- Küçük vaka serileri, yabancı cismin derhal burundan çıkarıldığında komplikasyonların nadir olduğunu, ancak herhangi bir gecikmenin bir takım komplikasyonlara yol açabileceğini bildirmektedir.[13]

Düğme Pil

Düğme piller artık çocuk oyuncaklarında, uzaktan kumandalarda, hesap makinelerinde ve diğer birçok yerde her yerde bulunur.

Doğrudan sızıntı koroziv hasara neden olduğu için doku hasarı meydana gelir. Basınç nekrozunun yanı sıra mukoza üzerinde doğru akım etkileri de vardır. Doku sıvıları, pil anodu ve katot arasında bir akım oluşturarak korozyona neden olur. Eşleştirilmiş mıknatıslar da benzer sonuçlara sahip bir akım oluşturur.[8] 7 saat içinde likefaksiyon nekrozu ve septal perforasyona neden olabilir.[12] Bu nedenle acil şekilde çıkarılmalıdır. Yoğun mükopürülan akıntı ve mukozal ödem nedeniyle direkt olarak gözükmeyebilirler. Aileleri düğme pillerin riski konusunda eğitmek önemlidir. Yetişkin gözetimi her zaman önlemenin anahtarıdır.

Canlı yabancı cisimler

Sivrisinek, hamamböceği, karafatma gibi canlılar düşük hijyen durumlarında görülebilir. Öncelikle %2 lidokain ile canlıyı öldürüp sonrasında çıkarmak gerekir.

KULAKTA YABANCI CİSİM

Acil servislerde pediatrik yabancı cisim başvurularında ilk sırada dış kulak yolunda yabancı cisim gelir. Çocuklarda genellikle yiyecek (örn. fasulye, bezelye, mısır ve tohumlar) gibi küçük nesneler veya küçük yuvarlak nesneler (örn. boncuklar, taşlar ve oyuncaklar) görülür. Yetişkinlerde ise genellikle kulağı temizlemek veya kaşımak için kullanılan maddeler (örneğin, pamuklu çubuk, kağıt, ataç ve kurşun kalem) ve kulağa giren böcekler görülür.[14] Yetişkinlerde seyahat ve kamp geçmişi, kötü yaşam koşulları dış kulak yolunda böcek olabileceğini düşündürür.

Klinik

- Yabancı cisim böcek ise kulakta vızıltı sesi, hareket duygusu mevcuttur.
- Kulakta kaşıntı, kanama, pürülan akıntı, ağrı, duymada azalma, bulantı, sersemlik olabilir.
- Otik yabancı cisim sekelleri genellikle ciddi değildir. Genellikle eksik tanı ve kalıcı kulak kanal nesneleri ile ilgili, kronik otit, işitme kaybı, fasial paralizi ve ciddi enfeksiyonlara (mastoidit,menejit gibi) yol açabilir. En sık görülen komplikasyonlar dış kulak kanalı kanaması (% 10), otitis eksterna ve (hastaların yaklaşık %2'sinde) timpanik membran perforasyonudur. Komplikasyonlar, otik yabancı çişimin uzun süredir bulunduğu, hastaların çıkarma girişimleri için iş birliği yapmadığı ve uygulayıcının az deneyimli olduğu durumlarda daha olasıdır. [4]
- Timpanik membran yabancı cisim tarafından veya önceki çıkarılma girişimleri ile rüptüre olabilir.

Tanı

Tanı için görüntüleme genellikle gerekmez. Direkt otoskopik muayene yeterlidir. Enfeksiyöz veya eroziv sekelin görülmesi için BT veya MR görüntüleme kullanılabilir.

Ayırıcı Tanı

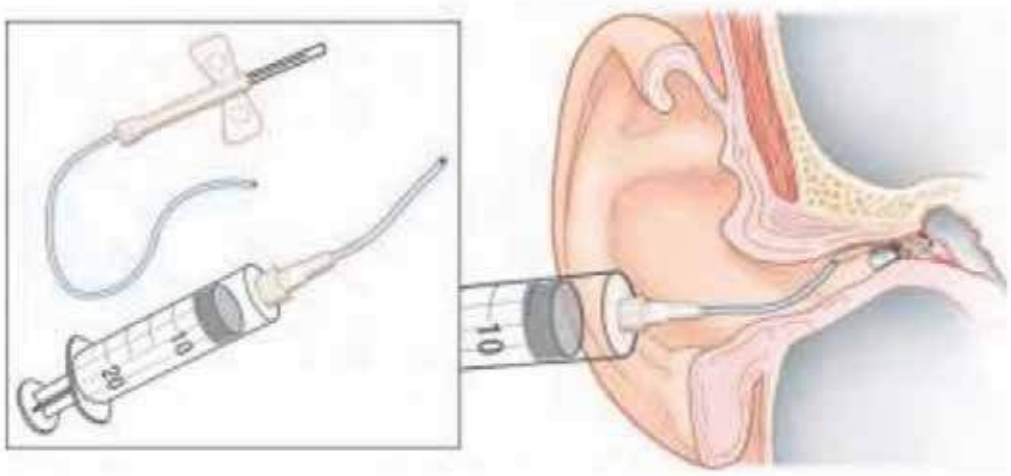
Otitis media, otitis eksterna, kulak kanalı travması, timpanik membran perforasyonu, Meniere hastalığı ve otolojik tümörler ayrıcı tanılarda bulunur

Tedavi

- Yeterli aydınlatma ve uygun boyutta bir otoskop gereklidir.
- Koopere olmayan hastalar için sedasyon uygulanır.
- Çıkarma işlemi için serumen küretleri, dik açılı kanca ve timsah açılı forseps kullanılır.

- Canlı yabancı cisimler öncelikle böceği felç eden ve topikal anestezi sağlayan %2 lidokain çözeltisi ile boğulmalıdır. Sonrasında sıvı aspire edilir ve böcek doğrudan görülerek nazikçe aspire edilir yada forseps ile çıkarılır.

- Sert kum, serumen gibi küçük yabancı cisimlerde oda sıcaklığında su ile lavaj yeterlidir ve distaldeki nesneleri hareket ettirebilir. Lavaj işleminden önce timpanik membran tamamen görülüp perfore olmadığından emin olmak gerekir. Sıvı ile temasta büyüyebilen organik materyaller varsa lavaj göreceli bir kontrendikasyondur. [3] Düğme pil, mıknatıs gibi yabancı cisimlerin varlığında elektrik akımı veya pil içeriği doku nekrozuna neden olabildiği için kesinlikle irrigasyon yapılmamalıdır.



- Kanalda yabancı cisim kalıntıları varlığı, dış kulak yolu ve timpanik membranda hasar kontrolü için yabancı cisim çıkarıldıktan sonra mutlaka tekrar kontrol edilmelidir.
- Ciddi deri hasarı varlığı, yabancı cismin organik materyalden oluştuğu veya lokal inflamatuar reaksiyon görülen durumlarda topikal antibiyotikler başlanmalıdır.
- Kulakta yabancı cisimler genellikle acil durumlara yol açmayıp acil konsültasyon gerektirmezler. Acil serviste yabancı cisim çıkarılamazsa hasta bir hafta içinde mutlaka kulak burun boğaz uzmanına yönlendirilmelidir. Timpanik membran hasarı, kostik madde hasarı, yabancı cismin çıkarılmasının travmatik olduğu durumlarda acil kulak burun boğaz konsültasyonu istenmelidir.

ÖZOFAGEAL YABANCI CİSİM

Özofageal yabancı cisimler çoğunlukla çocuklarda görülür. Çocuklarda daha çok küçük nesneler (oyuncak, madeni para gibi) anatomik olarak dar olan proksimal özofagusta takılır. Yetişkinlerde genellikle gıda tıkanması görülür. Gıda tıkanmasına en sık et, kemik ve balık kılçığı sebep olur. Yetişkinlerde yabancı cisim genellikle distaldedir. Özofagus hastalığı olanlar, yaşlılar, demans hastalığı olanlar, psikiyatrik hastalığı olanlar yabancı cisim yutma şikayeti ile gelebilir. Dişsiz hastalarda bazen ağız içi protezler yutulur.

Yabancı cisim piloru geçtikten sonra genellikle gastrointestinal sistemden sorunsuz şekilde geçer. Eğer bu yabancı cisim düzensiz, keskin kenarlara sahip, 5 cm'den uzun veya 2,5 cm'den genişse pilorun distalinde takılabilir. [15]

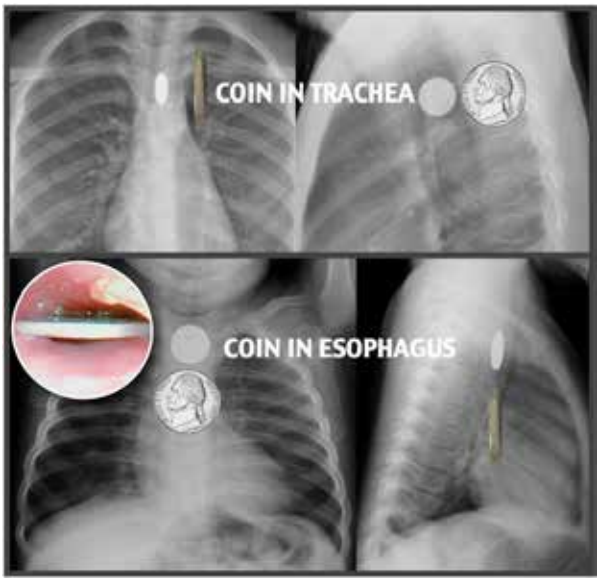
Yabancı cisimler mekanik erozyon (örn., kemik) veya kimyasal aşınmanın (örn., saat pili) sonucunda hava yolu tıkanıklığı, darlığı veya perforasyona yol açabilir. 24 saatten uzun süre özafagusta kalan yabancı cisimler perforasyon, aortaenterik fistül, trakeoözofageal fistül ve abse gibi komplikasyonlar yapabilir.

Klinik

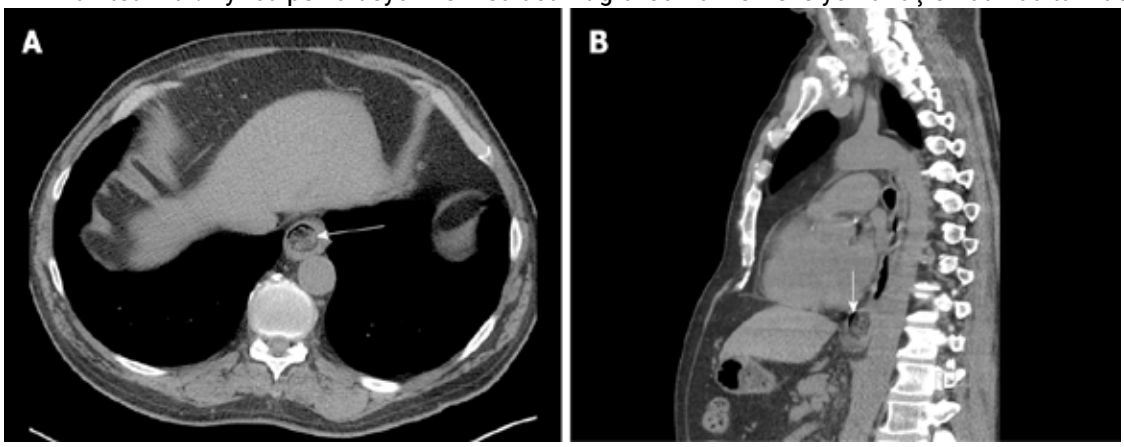
- Yetişkinler genelde net şekilde öyküyü belirtir.
- Retrosternal ağrı, disfaji, kusma olabilir. Yabancı cismi lokalize edebilir.
- Tıkanıklığı proksimalinde salgı birikimine bağlı öksürme, aspirasyon olabilir.
- Çocuklarda genelde öykü net değildir. Bu nedenle yemek yemeyi reddetme, kusma, öğürme, boğulma, stridor, ağrı şikayeti olan çocuklarda yabancı cisim açısından yüksek şüphe ile yaklaşmak gerekir.

Tanı

- Radyoopak yabancı cisimler için direkt grafiler kullanılır.[16]but characteristics of emergency department (ED
- Özofagustaki madeni paralar dairesel yüzlerini genelde AP grafilerde gösterir. Trakeadaki madeni paralar iste dairesel yüzünü lateral grafide gösgerir.



- Yiyecek sıkışması olan hastalarda direkt grafiler faydasızdır.
- BT özofagusta özellikle cam, kemik, plastik, besinler gibi radyoopak olmayan nesnelerin tanınması için faydalı bir tetkiktir. Ayrıca perforasyon ve mediastinit gibi sonraki enfeksiyonlar açısından da tanı değeri yüksektir.



- Ultrason (US), midede yabancı cisimleri tanımlamak için potansiyel bir araç olarak tanımlanmıştır, ancak şu anda rutin olarak kullanılmamaktadır. [17], [18]

Ayırıcı Tanı

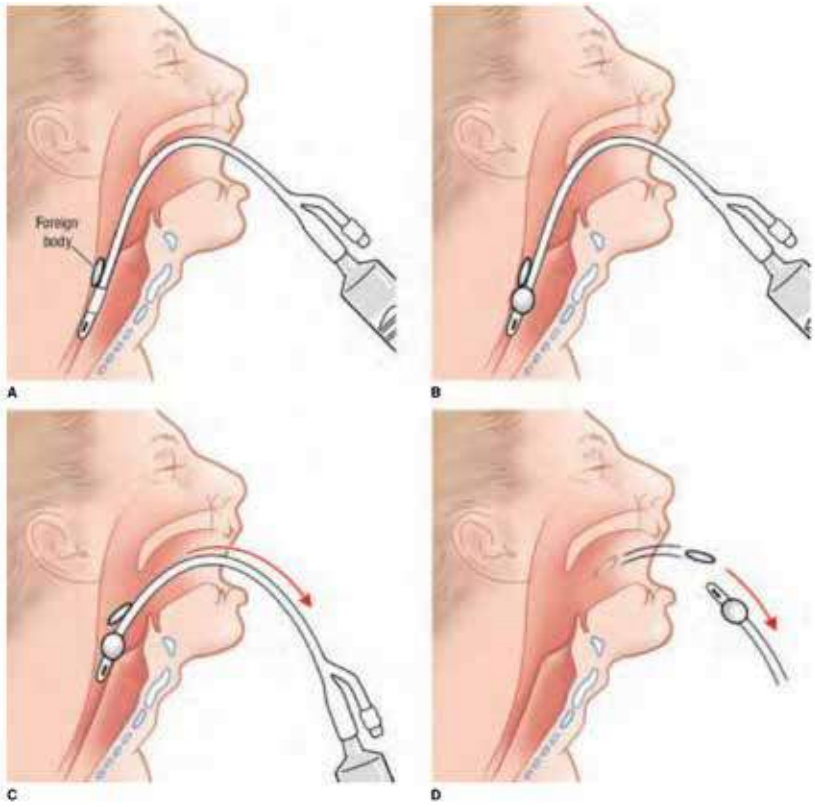
Özellikle yabancı cismin özofagusta ya da hava yolunda olduğunun ayrımı yapılmalıdır. Çocuklarda özofagustaki yabancı cisim trakeaya bası yapabilir ve bu nedenle solunum semptomları olabilir. Özofageal tıkanması olan hastalar iskemik göğüs ağrısına benzer retrosternal ağrı hissedebilirler.

Tedavi

- Hava yolu kapanma tehlikesi olan hastalar resusite edilir ve genellikle aktif hava yolu yönetimi gerekir.
- Acil endoskopi gereken durumlar:

- Özofagusun tamamen tıkanması; bu durum salgıların proksimalde göllenmesine yol açabilir.
- Keskin veya uzun nesnelerin yutulması (örn., kemik parçacıkları)
  - Birden fazla yabancı cisim yutulması
  - Saat pili yutulması
  - Perforasyon kanıtı
  - Çocuklarda krikofarengeus kası seviyesinde madeni para
  - Havayolu tıkanması
  - 24 saatten fazla sürede yabancı cisim varlığı

- Laringoskopi:
  - Stabil hastalarda daha çok proksimale yerleşen yabancı cisimlerin çıkarılmasında faydalı olabilir.
- Yabancı cismi foley kateter ile çıkarma veya buji ile özofagustan mideye ilerletme:
  - 24 saatten az süredir takılan madeni paralar gibi künt yabancı cisimlerde altta yatan özofagus hastalığı olmayan hastalar için kullanılabilir. [3]
  - İleri hava yolu ihtiyacı için dikkatli olmak gerekir.
  - Kılavuz olarak floroskopi eşliğinde foley kateter özofagusta yabancı cismin ötesine geçirilir, balon şişirilir ve kateter yavaşça geri çekilerek yabancı cisim çıkarılır.



- Tedavi erteleme:
  - Yabancı cisim piloru geçmişse, keskin kenarları yoksa, geniş ve uzun değilse, hasta rahat ve oral alımı varsa müdahale için beklenebilir.

- Glukagon:
    - Yetişkinlerde distal özofagustaki yabancı cisimlerde alt sfinkteri gevşettiği ve yabancı cisimlerin geçişine izin verdiği bilinmektedir. Fakat glukagon tedavisinin başarı oranları zayıf olarak bildirilmiştir.[19]given before voluntary swallowing, could facilitate subsequent swallowing movements. The subjects consisted of seven healthy volunteers. We used visual images to strengthen central input. The subjects voluntarily performed either dry swallowing or water swallowing after presentation of the visual images. Under the water-swallowing condition, the latency was significantly shorter and the maximum amplitude of the suprahyoid electromyographic (EMG Ayrıca glukagon kusmaya neden olabilir ve sonucunda aspirasyon veya perforasyon riskini artırabilir.

Narkotik yutulması

Narkotik kuryeler çok sayıda küçük ilaç paketini yutarlar. Bu paketler genellikle direkt grafide görülebilir. Küçük bir paketin bile rüptürü ölümcüldür. İyatrojenik paket rüptürü nedeniyle endoskopi kontrendikedir. Paketler gastrointestinal sistemden sağlam geçiyorsa rektuma ulaşana kadar gözlem gerekir.

Keskin nesnelerin yutulması

Perforasyon riski nedeniyle duodenuma kadar olan keskin yabancı cisimlerin acil endoskopi ile çıkarılması gerekir. Duodenum distalindeki keskin yabancı cisimlerde hasta asemptomatik ise günlük direkt grafilerle takip edilir. 3 gün pasajsız geçerse cerrahi olarak çıkarılması düşünülmelidir. [3] Ağrı, kusma, ateş, gis kanama gibi barsak hasarı belirtileri mevcutsa acil cerrahi olarak çıkarılması gerekir. [15]

Saat pili yutulması

Özofagusta yutulmuş saat pili alkali elektrolitin sızması, basınç nekrozu ve dıştan akım oluşturarak doku sıvısında elektrolize neden olması ve böylece pilin negatif kutbunda hidroksit oluşması ile hızla mukozal hasar, nekroz ve sonucunda 6 saat içinde perforasyon yapabilir. Bu nedenle acil olarak çıkarılması gerekir. Çıkarmak için acil endoskopi tercih edilir. Endoskopiye acil olarak ulaşılamıyorsa foley balon kateter yöntemi düşünülebilir.

Özofagusu geçmiş saat pillerde hasta semptomatik değilse yakın izlemle ve tekrar direkt grafi ile takip edilebilir. Piller çoğunlukla 48-72 saat içerisinde atılır. Barsak hasarı belirtileri olan hastalarda acil cerrahi gerekir.

REKTAL YABANCI CİSİM

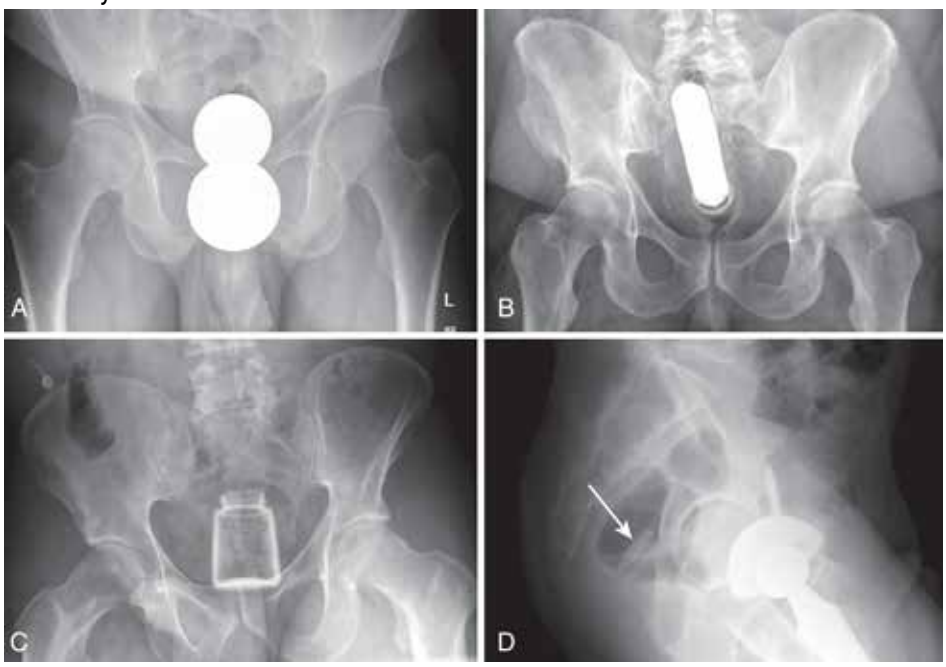
Acil servislerde rektal yabancı cisim ile başvuru giderek artmaktadır. Özellikle çocuklarda, psikiyatrik hastalığı olanlarda, iyatrojenik yaralanma ve saldırı mağdurlarında görülebilmektedir. Çocuklarda sıklıkla rektal ateş ölçümü sırasında termometre parçalarının sıkışmasına bağlı olmaktadır.[20] Yabancı cisme bağlı yaralanmalar hematom oluşumu, perforasyon ve özellikle gecikmiş başvurularda iskemik segmentleren meydana gelebilir.[3]

Klinik

- Karın ağrısı, kramp, rektal kanama ve akıntı gibi şikayetler olabilir.
- Hasta başlangıçta rektal yabancı cisimle ilgili hikayeyi vermeyebilir
- Özellikle büyük ve keskin yabancı cisimlerde ateş, lökositoz, karın ağrısı, rektal kanama, akut batın gibi bulgular mevcutsa perforasyon düşünmek gerekir.

Tanı

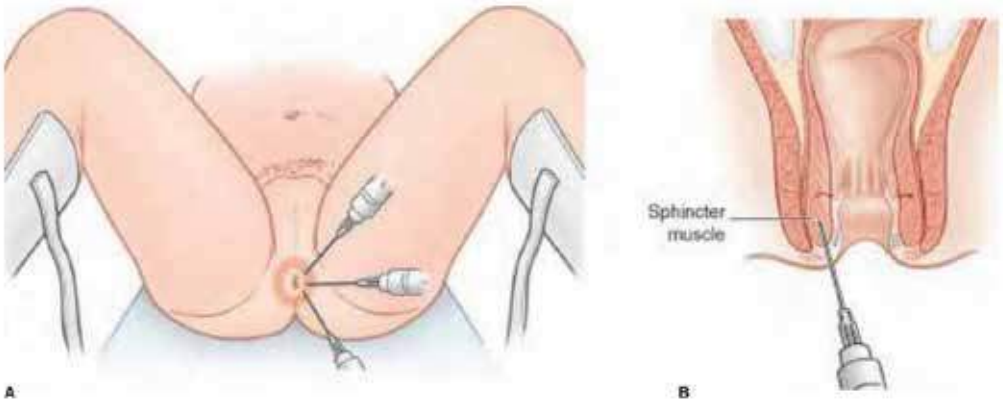
- Yabancı nesnelerin çoğu rektal ampulla içerisinde olup parmak muayenesi ile saptanabilir.
- Keskin nesnelerden şüphelenildiğinde anoskopi yapılması gerekir.
- Karın direkt grafileri yabancı cismin konumu, şekli, perforasyon açısından serbest hava varlığını saptayabilir.



- BT yabancı cisim, perforasyon ve rektal abse tespitinde kullanılabilir.

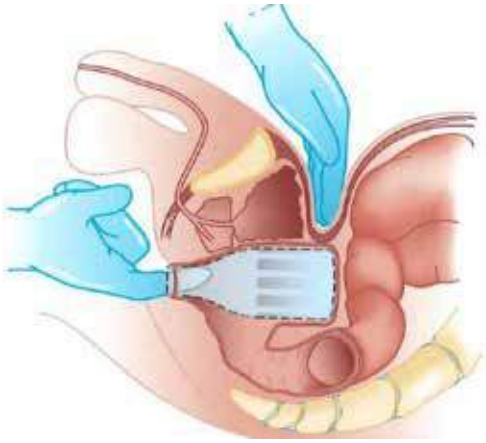
Tedavi

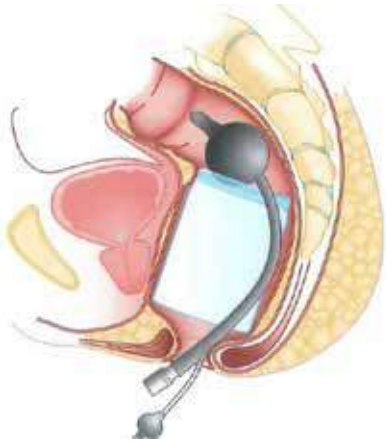
- Rektal yabancı cisimler mukozal laserasyonlar, barsak delinmesi ve tıkanıklığı, sepsis ve peritonit yapabileceği için mutlaka çıkarılmalıdır. [4]
- Çıkarma işlemi öncesi sedasyon ve lokal anestezi uygulanması hastanın rahatlaması ve sfinkterin gevşemesi açısından faydalıdır.



- Rektal yabancı cisim çıkarma tekniği yalnızca kişinin deneyim düzeyi, işlemle ilgili rahatlığı ve mevcut kaynaklarla sınırlıdır.[21]
- Yabancı cismin kenarı forsepsle kavranarak ve suprapubik bölgeden bastırılarak çıkarılabilir. Bir diğer

yöntem ise yabancı cismin yanına bir foley kateter yerleştirilip proksimalinde balon şişirilir ve foley kateter çekilerek yabancı cisim çıkarılabilir. Bazen foley kateter yerine endotrakeal tüp kullanılabilir.





- Acil servislerde genelde distal yerleşimli ve künt rektal yabancı cisimler çıkarılabilir fakat keskin kenarlı cisim mevcutsa, yabancı cisim büyükse veya hastada perforasyon belirtileri varsa cerrahi müdahale gerekir. [15]
- Yabancı cismi çıkarırken gastrointestinal kanal ve sfinkter hasarı açısından dikkat etmek gerekir. Rektal ve anal yırtıklar olabilir ve cerrahi onarım gerekebilir. Perforasyon, sfinkter hasarı gibi cerrahi gerektiren durumlarda acil serviste geniş spektrumlu antibiyotik başlamak gerekir.
- Perforasyon açısından şüpheli durumlarda perforasyon olmadığından emin olmak için hastayı en az 12 saat takip etmek ve tekrar direkt grafi görmek gerekir.

SONUÇ

- Acil servislerde vücutta yabancı cisim ile sık başvuru olmaktadır. Acil hekimleri tarafından bu yabancı cisimlerin cinsi ve lokalizasyonuna göre hangi durumlarda acil çıkarılması gerektiğinin ve çıkarma yöntemlerinin iyi bilinmesi gerekmektedir.

ANAHTAR KELİMELER: Yabancı cisim, pil, foley, perforasyon

KAYNAKLAR

[1] G. McGwin ve C. Owsley, "Incidence of emergency department-treated eye injury in the United States", *Arch Ophthalmol*, c. 123, sy 5, ss. 662-666, May. 2005, doi: 10.1001/archopht.123.5.662.

[2] O. Yigit, A. Yuruktumen, ve S. Arslan, "Foreign body traumas of the eye managed in an emergency department of a single-institution", *Ulus Travma Acil Cerrahi Derg*, c. 18, sy 1, ss. 75-79, 2012, doi: 10.5505/tjtes.2012.49354.

[3] J. E. Tintinalli *vd.*, Ed., *Tintinalli's emergency medicine: A Comprehensive Study Guide*, 9. Edition. New York Chicago San Francisco: McGraw-Hill, 2020.

[4] J. Walls, R. Hockberger, ve M. Gausche-Hill, *Rosen's emergency medicine*, 9. edition. Philadelphia, PA: Elsevier, 2018.

[5] R. J. Hoffman, *Fleisher and Ludwig's 5-Minute Pediatric Emergency Medicine Consult*. Lippincott Williams & Wilkins, 2012.

[6] C. Shermetaro ve M. Charnesky, "Pediatric nasal septal perforation secondary to magnet misuse: a case report", *Ear Nose Throat J*, c. 86, sy 11, ss. 675-676, Kas. 2007.

[7] E. O. Meltzer ve NasalCrom Study Group, "Efficacy and patient satisfaction with cromolyn sodium nasal solution in the treatment of seasonal allergic rhinitis: a placebo-controlled study", *Clin Ther*, c. 24, sy 6, ss. 942-952, Haz. 2002, doi: 10.1016/s0149-2918(02)80009-1.

[8] K. Baranowski, M. S. Al Aaraj, ve V. Sinha, "Nasal Foreign Body", içinde *StatPearls*, Treasure Island (FL): StatPearls Publishing, 2022. Erişim: 06 Ekim 2022. [Çevrimiçi]. Erişim adresi: http://www.ncbi.nlm.nih.gov/books/NBK459279/

[9] M. D. Baker, "Foreign bodies of the ears and nose in childhood", *Pediatr Emerg Care*, c. 3, sy 2, ss. 67-70, Haz. 1987, doi: 10.1097/00006565-198706000-00001.

[10] F. Glynn, M. Amin, ve J. Kinsella, "Nasal foreign bodies in children: should they have a plain radiograph in the accident and emergency?", *Pediatr Emerg Care*, c. 24, sy 4, ss. 217-218, Nis. 2008, doi: 10.1097/PEC.0b013e31816a9f1b.

[11] D. Dwyer, "Foley catheter technique for nasal foreign body removal in children", *Emerg Med Australas*, c. 27, sy 5, ss. 495-496, Eki. 2015, doi: 10.1111/1742-6723.12481.

[12] S. W. Heim ve K. L. Maughan, "Foreign bodies in the ear, nose, and throat", *Am Fam Physician*, c. 76, sy 8, ss. 1185-1189, Eki. 2007.

[13] S. Mohan, J. C. Fuller, S. F. Ford, ve R. W. Lindsay, "Diagnostic and Therapeutic Management of Nasal Airway Obstruction: Advances in Diagnosis and Treatment", *JAMA Facial Plast Surg*, c. 20, sy 5, ss. 409-418, Eyl. 2018, doi: 10.1001/jamafacial.2018.0279.

[14] A.-J. An, "Aural foreign bodies: descriptive study of 224 patients in Al-fallujah general hospital, iraq", *International journal of otolaryngology*, c. 2013, 2013, doi: 10.1155/2013/401289.

[15] K. L. Anderson ve A. J. Dean, "Foreign bodies in the gastrointestinal tract and anorectal emergencies", *Emerg Med Clin North Am*, c. 29, sy 2, ss. 369-400, ix, May. 2011, doi: 10.1016/j.emc.2011.01.009.

[16] S. D. Crockett, S. L. W. Sperry, C. B. Miller, N. J. Shaheen, ve E. S. Dellon, "Emergency care of esophageal foreign body impactions: timing, treatment modalities, and resource utilization", *Dis Esophagus*, c. 26, sy 2, ss. 105-112, Mar. 2013, doi: 10.1111/j.1442-2050.2012.01344.x.

[17] T. Hosokawa *vd.*, "Role of Sonography for Evaluation of Gastrointestinal Foreign Bodies", *J Ultrasound Med*, c. 35, sy 12, ss. 2723-2732, Ara. 2016, doi: 10.7863/ultra.16.01042.

[18] M. Yamamoto, T. Koyama, M. Agata, K. Ouchi, T. Kotoku, ve Y. Mizuno, "Diagnosis of Ingested Foreign Body in the Stomach by Point-of-Care Ultrasound in the Upright and Slightly Forward Tilting Position (Bowing Position)", *Pediatr Emerg Care*, c. 33, sy 5, ss. 365-366, May. 2017, doi: 10.1097/PEC.0000000000001125.

[19] K. Maeda, T. Ono, R. Otsuka, Y. Ishiwata, T. Kuroda, ve K. Ohyama, "Modulation of voluntary swallowing by visual inputs in humans", *Dysphagia*, c. 19, sy 1, ss. 1-6, 2004, doi: 10.1007/s00455-003-0023-9.

[20] B. Azman, B. Erkuş, ve B. H. Güvenç, "Balloon extraction of a retained rectal foreign body under fluoroscopy, case report and review", *Pediatr Emerg Care*, c. 25, sy 5, ss. 345-347, May. 2009, doi: 10.1097/PEC.0b013e3181a3494f.

[21] K. G. Cologne ve G. T. Ault, "Rectal foreign bodies: what is the current standard?", *Clin Colon Rectal Surg*, c. 25, sy 4, ss. 214-218, Ara. 2012, doi: 10.1055/s-0032-1329392.

Retrospective Evaluation of Cases Presenting with Carbon Monoxyde Poisoning to Emergency Department

Cihat Yel

ABSTRACT

Carbonmonoxyde poisoning is a mortal patology.

Aim: In our study, we aimed to contribute to the literature by examining the correlation of carboxy-hemoglobin (CO-Hb) levels with demographic, vital and blood values of cases who presented with carbon monoxide (CO) intoxication.

Material and Method: This retrospectice study was conducted on 245 patient who diagnosed with CO poisoning and visited Hatay Research and Education Hospital Emergency Department between June 1 2021 and May 31 2022. Age, gender, sypmthom, glasgow coma scale (GCS) and some of blood values [pH, alanine aminotransferase (ALT), aspartate aminotransferase (AST), creatine kinase (CK), CK-MB and troponin] of the patients were reviewed. The statistical analysis of the data was performed by using SPSS (Ver.22) software package. Mean value and interquantile range (IQR) values were used for representation of quantitative data ; case number(n) and percentage (%) were used for representation of qualitative data.The disrubution of quantitative data was evaluated by using Kolmogrov Smirnov test.The analyzing of nonparametric data was evaluated by using Mann Whitney U test. Correlation of two quantitative data was analyzed by using Spearman Correlation test. $P<0.05$ was considered statistically significant.

Results: Median age of patients was 33 (IQR:22.5) and 91(%31) of the patients was male. 227(%92.7) of the patients were poisoned by stove, 18 (7.3) of the patient were poisoned by hookah. CO-Hb value was measured %26.5 (IQR: %5). Most common sypmtom in patients was dizziness (%82) and nausea (%71.4). CO-Hb values of the patients who has syncope, arrest, lateralizing value, unconsciousness, speech disorder and defect of vision were evaluated significantly high ($p<0.05$).There was no correlation between other sympthoms and CO-Hb level ($p>0.05$). It was detected that CO-Hb level was negatively correlated with GCS and positively correlated with lactate, AST, ALT and CK-MB. There was no correlation between CO-Hb level, blood pressure, heart rate, pH, CK and troponin values ($p>0.05$).

Conclusion: As a result, high CO-Hb levels are closely associated with neurological findings and blood parameters indicating hypoxia.

Keys Words: Carbonmonoxyde poisoning , emergency medicine

Introduction

Carbon monoxide (CO); It is a compound that occurs as a result of the combustion of carbon-based fuels until the final product; It is a colorless, odorless and non-irritant gas. Although poisonings are generally due to heating fuels such as natural gas and stoves, they can occur as a result of exposure to smoke from tobacco products, fire and exhaust. CO poisoning accounts for 8-34% of all poisonings (1).

Patients may present to the emergency department due to CO poisoning with a wide range of clinics ranging from mild headache to coma (2). Myocardial damage, brain damage, and late neurological sequelae may occur at varying rates in 40% of CO poisonings (3, 4).

In our study, we aimed to contribute to the literature by examining the correlation of carboxy-hemoglobin (CO-Hb) levels with demographic, vital and blood values of cases who presented with carbon monoxide (CO) intoxication.

Material and Method

This retrospectice study was conducted on 245 patient who diagnosed with CO poisoning and visited Hatay Research and Education Hospital Emergency Department between June 1 2021 and May 31 2022.

Age, gender, sypmthom, glasgow coma scale (GCS) and some of blood values [pH, alanine aminotransferase (ALT), aspartate aminotransferase (AST), creatine kinase (CK), CK-MB and troponin] of the patients were reviewed.

Patients whose data could not be accessed, who were under the age of 18 and did not have data in their digital/physical files were excluded from the study.

The statistical analysis of the data was performed by using SPSS (Ver.22) software package. Mean value and interquantile range (IQR) values were used for representation of quantitative data ; case number(n) and percentage (%) were used for representation of qualitative data.The disrubution of quantitative data was evaluated by using Kolmogrov Smirnov test.The analyzing of nonparametric data was evaluated by using Mann Whitney U test. Correlation of two quantitative data was analyzed by using Spearman Correlation test.P<0.05 was considered statistically significant.

Results

Median age of patients was 33 (IQR:22.5) and 91(%31) of the patients was male. 227(%92.7) of the patients were poisoned by stove, 18 (7.3) of the patient were poisoned by hookah. CO-Hb value was measured %26.5 (IQR: %5). Most common sypmtom in patients was dizziness (%82) and nausea (%71.4). CO-Hb values of the patients who has syncope, arrest, lateralizing value, unconsciousness, speech disorder and defect of vision were evaluated significantly high (p<0.05).There was no correlation between other sympthoms and CO-Hb level (p>0.05) (Table 1).

Picture 1. The relationship between the presence of symptoms and CO-Hb level

		Number of cases n(%)	CO-Hb level		p
			Positive Median	Negative(n:293)	
Symptoms,	Dizziness	202 (82.4)	26 (5)	26 (7)	0.791
	Nausea	175 (71.4)	27 (5)	25 (5.3)	0.668
	Headache	108 (44.1)	26.5 (5)	26 (6)	0.315
	Fatigue	66 (26.9)	25 (5)	27 (5)	0.181
	Dyspnea	27 (11)	27 (6)	26 (6)	0.143
	Syncope	23 (9.4)	32 (10)	26 (5)	<0.001
	Unconsciousness	8 (3.3)	32 (13.5)	26 (6)	0.001
	Chest pain	8 (3.3)	25.5 (7.7)	26 (5)	0.864
	Speech disorder	8 (3.3)	32 (9.5)	26 (5.5)	0.002
	Defect of vision	7 (2.9)	33 (12)	26 (6)	0.001
	Arrest /mortality	2 (0.8)	58 (0)	26 (5)	0.030
	Lateralization	1 (0.4)	42	26 (5)	0.049

It was detected that CO-Hb level was negatively correlated with GCS and positively correlated with lactate, AST, ALT and CK-MB. There was no correlation between CO-Hb level, blood pressure, heart rate, pH, CK and troponin values (p>0.05) (Table 2).

Table 2. Comparison of CO-Hb level with vital parameters and blood values

		CO-Hb	
	Median (IQR)	r	p
GCS	15 (0)	-0.253	<0.001
Systolic blood pressure (mmHg)	110 (10)	0.458	0.327
Diastolic blood pressure (mmHg)	70 (18)	0.006	0.929
Pulse (pulse/min)	86 (4)	0.177	0.458
pH	7.34 (0.02)	-0.044	0.498
Lactate, mmol/L	1.6 (0.6)	0.150	0.019
AST (U/L)	36 (10)	0,169	0,008
ALT (U/L)	32 (11)	0,250	0,000
CK (mg/L)	289 (116,5)	-0,087	0,173
CK-MB (mg/L)	26 (10)	0,267	0,000
Troponin (mg/L)	5 (3)	0,043	0,509

GCS: Glasgow coma scale, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, CK: creatine kinase

Discussions

In acute CO poisonings; The affinity of CO for hemoglobin is 200 times greater than that of oxygen. Therefore, developing hypoxia leads to ischemia in many organs, especially the heart and brain, reducing energy production. As a result, edema and free oxygen radicals develop in cells and lead to clinic (5-7).

Carbon monoxide poisoning is a pathology that can occur in all age groups. In studies conducted with adult patients, the age range is between 35-41 and the frequency of women is between 57-68% (1, 4, 8). Consistent with the literature in our study, the median age was 33 years and 62.9% were women. We are of the opinion that the average age is young and women are poisoned more because female patients spend more time at home and CO affects all age groups.

Many studies have stated that the most basic cause of CO poisoning is stove/natural followed by fires (9, 10). Although it is stated in these studies that there may be CO poisoning with tobacco products such as cigarettes/hookah, it is seen that this rate is among other causes in general due to its very low rate. In our study, in accordance with the literature, stove and natural gas poisoning took the first place, but the rate of poisoning due to hookah was found to be high. This may be related to excessive hookah smoking in the region.

Symptoms that develop when the CO-Hb level is 15–30% are non-specific. Headache, dizziness, nausea, fatigue and dexterity are the most common symptoms (5, 11). Hassan et al. stated that the most common symptoms were headache, nausea/vomiting, and fatigue (12). The clinic in CO poisoning is dose-dependent and worsens as the CO-Hb level increases. In severe poisoning, loss of consciousness, chest pain, cardiovascular diseases, delayed neurological sequelae, coma and death may occur (13). In our study, in line with the literature, the most common symptoms were nausea, dizziness and headache, and CO-Hb levels were significantly higher in patients with neurological symptoms. We think that these symptoms come to the forefront due to hypoxia, mild edema and increase in free radicals, especially in the central nervous system.

CO poisoning is clinically dose-dependent and may lead to deterioration in the brain, heart and other tissues (13). Aydin et al. He stated that there is a negative significant relationship between GCS and CO-Hb levels (7). Although studies have stated that there is a relationship between CO-Hb levels, pH, lactate, troponin, CK, and CKMB levels, it has been stated that this relationship is not clinically significant (1, 8, 14, 15). In our study, the COHb level; It was found that there was a negative correlation with GCS and a positive correlation with lactate, AST, ALT and

CKMB. We think that as the CO-Hb level increases, the GCS decreases with the deterioration of consciousness, and the lactate level increases secondary to developing hypoxia. We think thought that CK-MB is increased due to cardiac involvement, and troponin values have not increased yet depending on time. We think that the effect of the liver, another organ that develops ischemia, increases AST and ALT.

Studies have reported that the mortality rate in CO poisoning is between 1-3% (3, 13). In our study, the mortality rate was found to be 0.8%. We think that our mortality rate was lower than the literature, due to the fact that some of the cases died at the scene.

Due to the retrospective nature of our study, we believe that some data are missing. Again, information about the exposure amount of the patients, the CO-Hb concentration of the environment, the pre-hospital time and the amount of oxygen given, and the data are limited.

In conclusion, high CO-Hb levels are closely associated with neurological findings and blood parameters indicating hypoxia.

References

1. Yildiz MN, Eroglu SE, Ozen C, Yildiz HA, Sektioglu BK, Alkan C. Analysis of the effects of COHb, lactate, and troponin levels on the clinical process and outcome in patients who were admitted to the emergency service due to carbon monoxide poisoning. History. 2019;3(2):0.4.
2. Chang YC, Lee HY, Huang JL, Chiu CH, Chen CL, Wu CT. Risk Factors and Outcome Analysis in Children with Carbon Monoxide Poisoning. Pediatrics and neonatology. 2017;58(2):171-7.
3. Rose JJ, Wang L, Xu Q, McTiernan CF, Shiva S, Tejero J, et al. Carbon monoxide poisoning: pathogenesis, management, and future directions of therapy. American journal of respiratory and critical care medicine. 2017;195(5):596-606.
4. Kim YJ, Sohn CH, Seo DW, Oh BJ, Lim KS, Kim WY. Clinical predictors of acute brain injury in carbon monoxide poisoning patients with altered mental status at admission to emergency department. Academic emergency medicine. 2019;26(1):60-7.
5. Bleecker ML. Carbon monoxide intoxication. Handbook of clinical neurology. 131: Elsevier; 2015. p. 191-203.
6. Jeon S-B, Sohn CH, Seo D-W, Oh BJ, Lim KS, Kang D-W, et al. Acute brain lesions on magnetic resonance imaging and delayed neurological sequelae in carbon monoxide poisoning. JAMA neurology. 2018;75(4):436-43.
7. AYDIN G, Gençay I, Çolak S, Aktan B, Büyükkoçak Ü. Karbonmonoksit İntoksikasyon Tanısı ile Yoğunbakımda Tedavi Edilen Olguların Analizi. Osmangazi Tıp Dergisi.42(1):39-47.
8. Kaya H, Coskun A, Beton O, Kurt R, Yildirimli M, Gul I. A cost effective parameter for predicting the troponin elevation in patients with carbon monoxide poisoning: red cell distribution width. Eur Rev Med Pharmacol Sci. 2016;20(13):2891-8.
9. Kim Y, Cha Y, Kim M, Kim H, Lee Y, Youk H, et al. The usefulness of diffusion-weighted magnetic resonance imaging performed in the acute phase as an early predictor of delayed neuropsychiatric sequelae in acute carbon monoxide poisoning. Human & experimental toxicology. 2018;37(6):587-95.
10. Topcu H, Yilmaz BK, Carus M. Karbonmonoksit Zehirlenmesi Nedeniyle Acil Tip Kliniğine Başvuran Hastaların Değerlendirilmesi. Phoenix Medical Journal. 2021;3(3):135-8.
11. Genç S, Aygün D. Karbonmonoksit Zehirlenmesinde Karboksihemoglobin Düzeyi, Zehirlenmenin Şiddeti ve Mini Mental Durum Testi Skalası Arasındaki İlişki. Turkish Journal of Emergency Medicine. 2013;13(1).

12. Hassan OA, Hamdy SAAaL. A Prospective Comparative Study between Three Chemical Markers for Predicting Delayed Neurological Sequelae in Patients with Acute Carbon Monoxide Poisoning of Poison Control Center in Minia University Hospital. Ain Shams Journal of Forensic Medicine and Clinical Toxicology. 2018;31:23-32.
13. Stearns D, Sircar K. National unintentional carbon monoxide poisoning estimates using hospitalization and emergency department data. The American journal of emergency medicine. 2019;37(3):421-6.
14. Benaissa ML, Mégarbane B, Borron SW, Baud FJ. Is elevated plasma lactate a useful marker in the evaluation of pure carbon monoxide poisoning? Intensive care medicine. 2003;29(8):1372-5.
15. Aydın G, Gençay I, Çolak S, Aktan B, Büyükkoçak Ü. Karbonmonoksit intoksikasyon tanısı ile yoğunbakımda tedavi edilen olğuların retrospektif analizi. Osmangazi Journal of Medicine 2020; 42 (1): 39-47.

Personel Şişedekini Su Zannetmiş (MSDS Formları)

Uzm.Dr.Mehmet Tatlı

SBÜ. VAN Bölge Eğitim ve Araştırma Hastanesi Acil Tıp Bölümü

Vaka:Acil serviste temizlik personellerinin dinlenme odasında; temizlik personeliniz küçük pet şişedekini su zannederek içtiğini ve boğazında yanma hissi olduğunu söyleyerek yanınıza geldi.

Ne yapmalıyız?

Bu olay bir "Adli- İş kazası"'dır. Olayı sorguladınız.

Bir önceki vardiyadaki temizlik personeli çamaşır suyunu büyük bidonunu yanında taşımamak için küçük pet şişelere koymuş.Çıkarken cebindeki şişeyi çıkarıp masa üzerine bırakmış ve orada unutmuş.

Yeni vardiya ile gelen Ahmet de loş bir ortamda su zannederek alıp içmeye çalışmış.

Bu tür olaylar acil servislerde, hastanelerde her zaman karşılaşabileceğimiz türden olaylardır. Doğru şekilde müdahale etmek ve standartizasyonları sağlamak için malzeme güvenlik bilgi formları hakkında bilgi sahibi olmalıyız.

Material Safety Data Sheet (MSDS), Malzeme Güvenlik Bilgi Formu

Çeşitli madde ve ürünlerin kullanımı için iş güvenliği ve sağlığı ile ilgili bilgileri listeleyen bir belgedir.

Kimyasallar, kimyasal bileşikler ve kimyasal karışımlar hakkında gerekli olabilecek tüm bilgileri içerir.

Hastanelerde MSDS

Hastanelerde İş güvenliği uzmanları MSDS formlarını oluşturmak ve temin etmekle sorumludurlar.

Hastanelerde kullanılan tüm kimyasal maddelerin MSDS formları bulunmalıdır.Olası temas ve toksisite durumlarında hızlıca ulaşılabilir olmalıdır.

Resmi Gazete'de yayınlanan "ZARARLI MADDELER VE KARIŞIMLARA İLŞKİN GÜVENLİK FORMLARI HAKKINDA YÖNETMELİK"'e göre malzeme güvenlik bilgi formları hazırlanmaktadır.

13 Aralık 2014 CUMARTESİ Resmî Gazete Sayı : 29204

YÖNETMELİK

Çevre ve Şehircilik Bakanlığından:

ZARARLI MADDELER VE KARIŞIMLARA İLİŞKİN GÜVENLİK BİLGİ FORMLARI HAKKINDA YÖNETMELİK

BİRİNCİ BÖLÜM

Amaç, Kapsam, Dayanak, Tanımlar ve Kısaltmalar

Amaç

MADDE 1 – (1) Bu Yönetmeliğin amacı; piyasaya arz edilen zararlı maddelerin ve karışımların insan sağlığı ve çevre üzerinde yaratabilecekleri olumsuz etkilere karşı etkin kontrol ve gözetimi sağlamak üzere güvenlik bilgi formlarının hazırlanması ve dağıtılmasına ilişkin idari ve teknik usul ve esasları düzenlemektir.

Güvenlik bilgi formlarında yer alması gereken bilgiler şunlardır.

- **MADDE 6 – (1) Güvenlik bilgi formunda yer alması gereken başlıklar aşağıdadır**
- a) Maddenin/Karışımın ve şirketin/dağıtıcının kimliği

- b) Zararlılık tanımlanması
- c) Bileşimi/İçindekiler hakkında bilgi
- ç) İlk yardım önlemleri
- d) Yangınla mücadele önlemleri
- e) Kaza sonucu yayılmaya karşı önlemler
- f) Elleçleme ve depolama
- g) Maruz kalma kontrolleri/kişisel korunma
- ğ) Fiziksel ve kimyasal özellikler
- h) Kararlılık ve tepkime
- ı) Toksikolojik bilgiler
- i) Ekolojik bilgiler
- j) Bertaraf etme bilgileri
- k) Taşımacılık bilgisi
- l) Mevzuat bilgisi
- m) Diğer bilgiler

Güvenli kullanım ve potansiyel tehlikelere yönelik talimatların yanı sıra dökülme-taşıma prosedürlerini de içerebilir.Mesleki bir ortamda malzeme ile çalışmanın tehlikelerine odaklanır.

Fiziko-kimyasal, sağlık veya çevresel risk temelinde uygun şekilde etiketleme görevi de vardır.

Etiketler, Avrupa Birliği standart sembolleri gibi tehlike sembolleri içerebilir. MSDS, uluslararası kabul görmüş 16 bölümlük bir formatı takip eder ve özellikle maddeler için, MSDS'yi söz konusu maddenin maruz kalma senaryolarını içeren bir Ek takip etmelidir

Sonuç

Hastanelerimizde iş güvenliği birimlerini aktif olarak kullanmalıyız.İş güvenliği birimlerine hızlıca ulaşabilmeliyiz. Olası temas durumlarında iş kazası ve adli olarak kayıtlarımızı alarak iş güvenliği uzmanına durumu bildirmeliyiz. MSDS (İş Güvenliği Bilgi Formları) hakkında bilgi sahibi olup gerekli durumlar da kullanmalı ve hasta kayıtlarına bu bilgileri aktarmalıyız.İvedi bir şekilde tedavilerimize başlamalıyız.

PREEKLAMPSİ-EKLAMPSİ YÖNETİMİ

Uzm. Dr. Hüseyin AYGÜN

Gebelikte hipertansiyon tanısı için; Sistolik kan basıncı ≥140 mmHg, diyastolik kan basıncı ≥90 mmHg veya her ikisi birden olmalıdır. Sistolik kan basıncının ≥150 mmHg, diyastolik kan basıncının ≥95 mmHg olması ciddi hipertansiyon olarak tanımlanır.

Gebelerde Hipertansif Hastalıklar:

1. Kronik Hipertansiyon
2. Preeklampsi/ Eklampsi/ HELLP Send.
3. Kronik Hipertansiyon zemininde gelişen Preeklampsi
4. Gestasyonel Hipertansiyon

Kronik Hipertansiyon; Gebe kadınlarda, gebelikten önce veya gebeliğin 20. haftasından önce tanı almış olan hipertansiyon kronik hipertansiyon olarak kabul edilir. Prevalans %0.6-1.5 arasında, son zamanlarda anne yaşı ve obezite artışıyla birlikte artmakta Maternal ve Fetal risklerin sıklığı, maternal hipertansiyonun ciddiyeti, süresi, hedef organ hasarının varlığı ve preeklampsinin eklenmesi ile artar. Kronik hipertansiyonu olan gebe kadınların kan basıncı yönetimi hakkında çeşitli organizasyonların önerilerine bakıldığında; American College of Obstetricians and Gynecologists (**ACOG**); gebelerde hafif kronik hipertansiyon (>140/90 mmHg ve <160/110 mmHg) nedeni ile tedaviye başlanmasının açık bir faydası olduğuna dair yeterli kanıt olmadığı için önermemektedir. Farmakolojik tedavi sistolik kan basıncı ≥160 mmHg veya diyastolik kan basıncı ≥110 mmHg olan gebe kadınlar için önerilmektedir. National Institute for Health and Care Excellence (**NICE**) rehberi, sistolik kan basıncı ≥140 mmHg ve diyastolik kan basıncı ≥90 mmHg olanlar için tedavi önermektedir ve hedef kan basıncı olarak <135/85 mmHg'yi belirlemiştir. International Society for the Study of Hypertension in Pregnancy (**ISSHP**); gebelik sırasında kan basıncını 110-140 mmHg/ 80-85 mmHg aralığında tutacak şekilde farmakolojik tedavi önermektedir. **Türk Hipertansiyon Uzlaşı raporu** ise, sistolik kan basıncının ≥150 mmHg ve/veya diyastolik kan basıncının ≥95 mmHg olduğu gebelerde antihipertansif tedavinin başlanmasının uygun olacağı görüşündedir. Ciddi olmayan hipertansiyonu olan (sistolik ≥140 ve <150 mmHg ve/veya diyastolik ≥90 ve <95 mmHg), antihipertansif tedavi almayan ve hedef organ hasarı olmayan kadınlar için, genellikle ilaç tedavisine, kan basıncı ciddi aralığa yaklaştığında başlanır. Hedef organ hasarı olmayan, güvenli bir antihipertansif tedavi ile kan basıncı kontrol altında olan kadınlar için mevcut tedaviye devam edilmesi önerilir.

İlk trimesterde ilaç kesilip yakın takip de uygulanabilir. Ciddi olmayan hipertansiyonlu kadınlarda, tedaviye labetalol, uzun etkili kalsiyum kanal blokeri (nifedipin) veya metildopa ile başlanması tercih edilir. Antihipertansif ilaçların tümü plasentadan geçmektedir. ACE inhibitorleri ve ARB ler, fetüste büyüme geriliği, oligohidroamnioz, renal disgenezi gibi fetal malformasyonlar yapabildikleri için gebelerde kontrendikedir Labetalol, nifedipin ve metil dopa fetus açısından güvenli ilaçlardır. Metildopa postpartum depresyon riskinde artış yaptığı için genellikle tercih edilmemektedir.

Preeklampsi: 20 hafta gebelikten itibaren, Yeni başlayan hipertansiyon (sistolik ≥140 ve/veya diyastolik ≥90 mmHg) ve proteinüri (≥0,3 g/24 saatlik idrarda veya spot idrarda protein/kreatinin ≥0,3 mg/mg veya Hipertansiyon ile birlikte proteinüri olsun olmasın en az 1 hedef organ hasarı olan multisistem ilerleyici bir hastalıktır. Şiddetli preeklampsi: 6 saat arayla iki kez ölçülen sistolik ≥160 mmHg ve/veya diyastolik ≥110 mmHg kan basıncı, Pulmoner ödem, Epigastrik veya sağ üst kadran ağrısı, Karaciğer fonksiyon testlerinde anormallik (2 kat yükselme), Trombositopeni (<100 bin/microL), Fetal büyüme geriliği, Oligüri (<500ml/24 saat), serum kreatin>1.1

mg/dl veya 2 kat artış., Proteinüri (>5gr/24 saat veya 4 saat arayla alınan idrarda >+3). Preeklampsinin tek kesin tedavisi fetüsün çıkartılmasıdır. Ciddi aralıktaki kan basıncı yüksekliğini tedavi etmek için antihipertansif tedavinin düzenlenmesi ve preterm eylem açısından hastanın hazırlanması için hospitalizasyon önemlidir. Şiddetli preeklampside profikaltik magnezyum sülfat endikedir. Doğum endikasyonu ve zamanlaması, gebelik yaşı, hastalığın ciddiyeti, progresyonu ve maternal ve fetal iyilik durumunun değerlendirilmesine bağlıdır. Hafif preeklampsi hastalarının taburculuk kararı kadın doğum uzmanı ile konsültasyonla verilmelidir. Hastaya acil başvuru yapması gereken durumlar net anlatılmadır. (baş ağrısı, görme bozukluğu vs)

Eklampsi: >20 hafta üzeri gebe veya postpartum 4 hafta içinde, epileptik nöbet geçirmeye neden olacak başka bir nörolojik durum yokken gelişen grandmal nöbetin varlığında eklampsi tanısı konur. Eklamptik konvülsiyon gelişen kadınların %15-%20 sinde diastolik kan basıncı 90 mmHg nın altındadır ve proteinüri yoktur. Kesin tedavi doğumdur. Nöbetler magnezyum sülfat ile kontrol edilmektedir. Başlangıç dozu IV 4-6 gr MgSO4 daha sonra 1-2 gr/saat infüzyon Böbrek yetmezliğinde doz ayarlanmalı Toksisite geliştiğinde yüzde kızarma, terleme, hipotermi, hipotansiyon, gevşek paralizi, patella refleks azalması ve respiratuar depresyon bulguları oluşur. Hipertansiyon kontrol edilemezse antihipertansifler(hidralazin, labetalol, nifedipin, sodium nitroprussit) kullanılır. **Eklampsi profilaksisi: MgSO4** Şiddetli preeklampsi ve eklampside endike Doğum eyleminde, indüksiyon öncesi veya C/S öncesinde başlanabilir. Antenatal dönemde 5-7 günden fazla kullanımı önerilmez MgSO4; fenitoin, nimodipin ve plasebodan üstün bulunmuştur. Konvülziyonlar ve hipertansiyon kontrol altına alınıp, annenin durumu stabilleştikten sonra doğum gerçekleştirilmelidir.

HELLP Sendromu: Hemoliz, yüksek KC enzimleri, trombositopeni ile karakterize preeklampsinin önemli bir varyantıdır. Koagulasyon profili bozulmuş olabilir. Multiparlarda daha sık gelişir. Hipertansiyon hiç görülmeyebilir Sıklıkla >20 hafta gebe epigastrik/sağ üst kadran ağrısı ile acil servis başvurusu ile tanı alır Tedavi şiddetli preeklampsi, eklampsi gibidir. Koagulasyon profili bozuksa ayrıca buna yönelik tedavi verilir. Subkapsüller KC hematomu hayati risk içeren komplikasyonudur, rüptür durumunda mortalite %50 dir. **Eklamptik Nöbet** Neredeyse bütün eklamptik nöbetler yaklaşık 60 saniye içerisinde kendiliğinden sonlanır MgSO4 nöbeti durdurmak için değil, rekürrensi önlemek için önemlidir. Klonazepam, diazepam, midazolam vs. nöbeti sonlandırmak için hemen VERİLMEMELİ. Bildirilmiş solunum depresyonu ve arrest vakaları mevcut. Ajite hastada iv sedasyon için kullanılabilir Magnezyum altında bile nöbet geçirse tedavisi yeniden magnezyum yüklemektir. Kronik

Hipertansiyon Zemininde Gelişen Preeklampsi : Kronik hipertansiyonu olan gebede preeklampsi tablosunun gelişmesidir ve prognoz daha kötüdür. Tedavisi preeklampsi ve eklampsi gibidir.

Gestasyonel Hipertansiyon: Gebelikte ortaya çıkan, proteinüri gözlenmeyen, maternal ve fetal komplikasyonlara neden olmayan hipertansiyon tipidir. Tipik olarak postpartum 2-4 haftada düzelir.

Kaynaklar:

1.Türkiye Endokrinoloji ve Metabolizma Derneği- Hipertansiyon Tanı ve Tedavi Klavuzu 2022

2.Tintinalli's Emergency Medicine

Prognostic Value of Lactatin in Patients With Sepsis

Halil İbrahim Akdoğan

Sepsis is a pathology with high mortality.

Objective: In our study, we aimed to evaluate the effect of lactate level on patient prognosis in emergency service admissions of patients with sepsis.

Material and method: Our study was planned retrospectively in a 3rd step hospital. Our study was carried out with patients who were taken to the intensive care unit with the diagnosis of sepsis from the emergency department between 01.03.2022 and 31.08.2022. The relationship between the patients' lactate levels and vital parameters, Glasgow coma scale (GCS), consciousness status, focus of infection, sepsis severity and mortality were evaluated.

Data were analyzed in SPSS22. The Kolmogrov Smirnov test was used to analyze the data and examine the distribution width. Mann Whitney U and Kruskal Wallis tests were used to compare quantitative data with categorical variables, and pearson correlation analysis was used to compare quantitative data with each other. P<0.05 was considered significant.,

Result: In our study, the median age of the patients was 63 (IQR: 21) years, and 58 (64.9%) of the patients were male. The median of lactate value was found to be 2.4 (IQR: 1.9) mg/dl. There is a positive correlation between lactate level and body temperature, pulse rate; A negative correlation was found between mean arterial pressure (p<0.05). No correlation was found between respiratory rate and GCS with lactate level (p>0.05). It was determined that the lactate level of the subjects with altered consciousness was significantly higher (p<0.05). No significant relationship was found between the focus of infection and lactate level (p>0.05). It was determined that lactate level increased significantly as the severity of sepsis increased (p<0.05). The lactate level of the patients who died was found to be significantly higher (p<0.05).

Conclusion: Lactate level is a parameter with high predictive value for bad prognosis and mortality in patients with sepsis.

Keywords: sepsis, lactate, mortality

Introductıon

Sepsis is defined as life-threatening organ dysfunction caused by an impaired host response to infection. sepsis; This is the patient group with a Sepsis-Related [Sequential] Organ Failure Assessment (SOFA) score of 2 and above in patients with infection. Septic shock is defined as the condition in which the mean arterial blood pressure does not rise above 65 mmHg and the serum lactate level is more than 2 mmol/L despite adequate fluid resuscitation in patients diagnosed with sepsis (1).

Sepsis is a disease that can be fatal in patients admitted to the emergency department (ED) (1). Since the first hours are very important in the treatment of sepsis, the diagnosis should be made and treatment should be started as soon as possible. In the United States (USA), 700,000 patients annually are diagnosed with sepsis or septic shock in Emergency Departments. These patients stay in the ED for an average of 5 hours (2). The diagnosis of sepsis cases as soon as possible in AS management includes hemodynamic resuscitation, source identification and appropriate antibiotic administration (3).

Lactic acidosis is the cause of metabolic acidosis with increased anion gap; lactate accumulation occurs due to

increased production or decreased excretion metabolism. Sepsis and septic shock are also among the causes of lactic acidosis (4).

In our study, we aimed to evaluate the effect of lactate level on patient prognosis in emergency service admissions of patients with sepsis.

Material and Method:

Our study was planned retrospectively in a 3rd step hospital. Our study was carried out with patients who were taken to the intensive care unit with the diagnosis of sepsis from the emergency department between 01.03.2022 and 31.08.2022. 90 patients admitted to our emergency department and diagnosed with sepsis were evaluated retrospectively

The relationship between the patients' lactate levels and vital parameters, Glasgow coma scale (GCS), consciousness status, focus of infection, sepsis severity and mortality were evaluated.

In our study, under 18 years of age, pathology leading to elevated lactate (patients with liver and kidney failure, hyperventilation, glycogen storage diseases, severe acute congestive heart failure, subacute bacterial endocarditis, severe anemia, conditions that reduce oxygen uptake of tissues, acute hemorrhage, glucagon, muscle exercise) Patients with circulatory collapse, cyanotic heart diseases, conditions causing acute hypoxia, uremia, cirrhosis, last trimester of pregnancy, severe vascular diseases, insulin infusion, leukemias, chronic alcoholism, Reye's syndrome, poliomyelitis and diabetic patients with complications) were excluded from the study.

Data were analyzed in (SPSS verison 22). The Kolmogrov Smirnov test was used to analyze the data and examine the distribution width. Mann Whitney U and Kruskal Wallis tests were used to compare quantitative data with categorical variables, and pearson correlation analysis was used to compare quantitative data with each other. $P<0.05$ was considered significant.

Result

In our study, the median age of the patients was 63 (IQR: 21) years, and 58 (64.9%) of the patients were male. The median of lactate value was found to be 2.4 (IQR: 1.9) mg/dl. There is a positive correlation between lactate level and body temperature, pulse rate; A negative correlation was found between mean arterial pressure ($p<0.05$). No correlation was found between respiratory rate and GCS with lactate level ($p>0.05$) (Table 1).

Table 1. The relationship of lactate level with vital parameters and GCS

	r	p
Body Temperature (°C)	0,210	0,047
Respiratory rate / min	-0,013	0,902
Pulse/min	0,240	0,023
MAP (mmHg)	-0,534	<0,001
GCS	-0,099	0,351

It was determined that the lactate level of the subjects with altered consciousness was significantly higher ($p<0.05$). No significant relationship was found between the focus of infection and lactate level ($p>0.05$). It was determined that lactate level increased significantly as the severity of sepsis increased ($p<0.05$). The lactate level of the patients who died was found to be significantly higher ($p<0.05$) (Table 2).

Table 2. The relation of lactate level with Consciousness, Infection focus, Infection level and Mortality

		Number of cases n(%)	Median (IQR)	p
Change of consciousness	Yes	13 (14.4)	4 (2,3)	0.004
	No	77 (85.6)	2 (1,7)	
Focuof infection	Soft tissue infection	7 (7,8)	1,8 (1, 8)	0,837
	urinary system	24 (26,7)	2,1 (1, 6)	
	gastrointestinal tract	6 (6,7)	2,8 (2,8)	
	respiratory system	42 (46,7)	2,5 (2,1)	
	Other	4 (4,4)	2,5 (1,7)	
	Combined	7 (7,8)	3,2 (3,7)	
Level of enfection	Sepsis	59 (65.6)	1.7 (1.2)	<0,001
	Septic shock	26 (28.9)	3.4 (1.9)	
	Multiorgan disfunction	5 (5.5)	6.5 (6.8)	
Mortality	Alive	56 (62.2)	2 (1.7)	0.001
	Exitus	34 (37.8	3.6 (3.7)	

Discussion

Sepsis is a disease with a high mortality rate and is mostly diagnosed in ED. One of the biggest factors in reducing mortality in sepsis is to start treatment as soon as possible. However, due to the different formations of the disease, the diagnosis process may be prolonged (5, 6).

In the studies, it was stated that the age range of the cases presenting with sepsis was between 55-65 years and these patients were 50-55% male (7-9). In our study, the mean age of the patients was 63 years, and 65% of the cases were male. (65% were found to be male). The reason for the increased incidence of sepsis in the male population may be related to the increased frequency of lung infections as a result of increased occupational exposure and smoking. In addition, we think that the increased use of hygienic products in the female population may have reduced the frequency of sepsis due to urinary tract infection.

In many studies, it has been stated that hypotension increases mortality and therefore, aggressive fluid therapy should be started as soon as possible in hypotensive patients admitted to ED (10, 11). Hunter et al. reported in their study that cases with sepsis progressed with tachycardia, tachypneic and subfebrile fever (12). Berger et al. In their study, they divided the blood lactate level into two groups as below or above 4 and stated that the fever level was not different in both groups, the heart rate and respiratory rate increased in those with blood lactate level above 4, and MAP decreased (13). In our study, the blood lactate level; body temperature and pulse rate are positive; It was found that there was a negative correlation between blood pressure and respiratory rate and no correlation with respiratory rate. This may be related to the decrease in tissue oxygen delivery in patients who develop both tachycardia and hypotension.

In the sepsis guideline published in 2016, it was stated that the elevation of lactate is insufficient in the prediction of sepsis, however, it can be used to support the diagnosis (1). Studies have shown that lactate levels increase in patients with sepsis (14, 15). In our study, the median lactate level was found to be 2.4 mmol/L, which is above normal values. We think that the lactate level increases due to increased anaerobic respiration as a result of hypoxia at the tissue level and the inability to clear lactate from the blood due to organ failures (kidney and liver).

Studies have reported that GCS will decrease in sepsis-related encephalopathy and metabolic disorders, and patients may develop unconsciousness (16, 17). While no significant correlation was found between GCS and lactate level in our study group, it was found that lactate level was high in patients with impaired consciousness.

Changes in consciousness develop in patients with a bad metabolic picture, however; We think that there is no relationship between lactate and GCS levels, depending on the degree of unconsciousness differing between patients.

In many studies, it was stated that the primary focus of infection was the lung, followed by urinary infection (7, 9, 18, 19). In a thesis study, it was found that there was no relationship between the focus of infection and lactate (16) In our study, sepsis was the first rank due to lung infections, in line with the literature, and no significant relationship was found between lactate and focus of infection. This is occupational exposure, excessive smoking, We are of the opinion that the frequency of sepsis due to pneumonia increases due to the frequent development of chronic obstructive pulmonary disease (COPD).

Studies have reported that lactate levels increase as the patient's clinic worsens (10, 16). In our study, in accordance with the literature; It was found that as the patient's clinic worsened, the lactate level increased. This may be related to the higher rate of circulatory disorders and damage to multiple organ systems in patients with bad clinical status.

Glickman et al. Puskarich, and Lee et al. stated that lactate level is an indicator of mortality in their studies (18, 20, 21). Musikatavorn, on the other hand, did not find a relationship with lactate level and 30-day mortality and attributed this to the fact that the patients were young (18). In our study, lactate levels were found to be high in patients with a mortal course, and this may be related to continuous hypotension and an irreversible process after a while.

Conclusion: Lactate level is a parameter with high predictive value for bad prognosis and mortality in patients with sepsis.

References

1. Singer M, Deutschman CS, Seymour CW, Shankar-Hari M, Annane D, Bauer M, et al. The third international consensus definitions for sepsis and septic shock (Sepsis-3). Jama. 2016;315(8):801-10.

2. Wang HE, Shapiro NI, Angus DC, Yealy DM. National estimates of severe sepsis in United States emergency departments. Critical care medicine. 2007;35(8):1928-36.

3. Sherwin R, Winters ME, Vilke GM, Wardi G. Does early and appropriate antibiotic administration improve mortality in emergency department patients with severe sepsis or septic shock? The Journal of emergency medicine. 2017;53(4):588-95.

4. Sargin G, Yavasoglu I, Kadiköylü G, Bolaman Z. Laktik Asidoz: Olgular Üzerinden Kisa Bir Gözden Geçirme/ Lactic Acidosis: A Short Review of Cases. Journal of Critical and Intensive Care. 2011;2(3):63.

5. Rivers E, Nguyen B, Havstad S, Ressler J, Muzzin A, Knoblich B, et al. Early goal-directed therapy in the treatment of severe sepsis and septic shock. New England journal of medicine. 2001;345(19):1368-77.

6. Lee WJ, Woo SH, Kim DH, Seol SH, Park SK, Choi SP, et al. Are prognostic scores and biomarkers such as procalcitonin the appropriate prognostic precursors for elderly patients with sepsis in the emergency department? Aging clinical and experimental research. 2016;28(5):917-24.

7. Nguyen SQ, Mwakalindile E, Booth JS, Hogan V, Morgan J, Prickett CT, et al. Automated electronic medical record sepsis detection in the emergency department. Peerj. 2014;2:e343.

8. Madsen TE, Napoli AM. The DISPARITY-II study: delays to antibiotic administration in women with severe sepsis or septic shock. Academic Emergency Medicine. 2014;21(12):1499-502.

9. Singer AJ, Taylor M, Domingo A, Ghazipura S, Khorasonchi A, Thode Jr HC, et al. Diagnostic character-

istics of a clinical screening tool in combination with measuring bedside lactate level in emergency department patients with suspected sepsis. Academic Emergency Medicine. 2014;21(8):853-7.

10. Yel C. Sepsisli hastalarda end tidal karbondioksit ve kan laktat düzeyi arasındaki ilişkinin karşılaştırılması. (Uzmanlık Tezi) Ankara 2014.

11. Michaud I, Pietropaoli AP, Trawick DR, et al. Early fluid resuscitation and outcome in severe sepsis and septic shock. Available from http://www.abstracts2view.com/ats/view. Php? Nu=ATS3L_3825. Accessed May 12, 2022.

12. Hunter CL, Silvestri S, Dean M, Falk JL, Papa L. End-tidal carbon dioxide is associated with mortality and lactate in patients with suspected sepsis. The American journal of emergency medicine. 2013;31(1):64-71.

13. Puskarich MA, Jones AE, Septis. In:Tintinalli JE (Eds), Emergency Medicine:A Comprehensive Study Guide (7th ed), mcgraw-Hill 2016;Pp:1021-1029.

14. Calandra T, Baumgartner J-D, Grau GE, Wu M-M, Lambert P-H, Schellekens J, et al. Prognostic values of tumor necrosis factor/cachectin, interleukin-l, interferon-α, and interferon-γ in the serum of patients with septic shock. Journal of Infectious Diseases. 1990;161(5):982-7.

15. Rackow EC, Astiz ME. Pathophysiology and treatment of septic shock. Jama. 1991;266(4):548-54.

16. Sürer S. Sepsiste acil yaklaşım ve serum laktat seviyesi ilişkisi (Uzmanlık Tezi) Adana 2016

17. Drumheller BC, Agarwal A, Mikkelsen ME, Sante SC, Weber AL, Goyal M, et al. Risk factors for mortality despite early protocolized resuscitation for severe sepsis and septic shock in the emergency department. Journal of critical care. 2016;31(1):13-20.

18. Musikatavorn K, Thepnimitra S, Komindr A, Puttaphaisan P, Rojanasarntikul D. Venous lactate in predicting the need for intensive care unit and mortality among nonelderly sepsis patients with stable hemodynamic. The American journal of emergency medicine. 2015;33(7):925-30.

19. Yıldız Ö. Sepsis Hastalarında Protokole Dayalı Yaklaşımın Başarısı: Prospektif Gözlemsel Çalışma (Uzmanlık Tezi). Trakya Üniversitesi Göğüs Hastalıkları ABD. Edirne-2010.

20. Glickman SW, Cairns CB, Otero RM, Woods CW, Tsalik EL, Langley RJ, et al. Disease progression in hemodynamically stable patients presenting to the emergency department with sepsis. Academic Emergency Medicine. 2010;17(4):383-90.

21. Lee S, Hong Y, Park D, Choi S, Moon S, Park J, et al. Lactic acidosis not hyperlactatemia as a predictor of inhospital mortality in septic emergency patients. Emergency Medicine Journal. 2008;25(10):659-65.

Pulmoner Toksisite

Uz.Dr.Halil İbrahim Akdoğan

Tokat Devlet Hastanesi

Pulmoner Toksisite çeşitli nedenlerle akciğerde meydana gelen hasara verilen isimdir. İlaçlar, radyasyon, gazlar, herbal ürünler ve çevresel etmenler pulmoner toksisiteye neden olabilir. Epidemiyolojisi tanının zorluğu nedeniyle net değildir. Tüm intertisyel akciğer hastalıklarının %2 -3 ünün ilaçlara bağlı olduğu düşünülmektedir. Kemoterapi alan hastaların %5-10 unda pulmoner toksisite görüldüğü gösterilmiştir. Yaklaşık 450 kadar ilacın pulmoner toksik etkiye sahip olduğu gösterilmiştir.Toksisite sıklıkla akciğer parankiminde olmak üzere plevrada, hava yollarında, pulmoner vasküler sistemde, nöromusküler sistemde ve mediastende görülebilir.

Hava yollarında asetil salisilik asit, beta blokerler, ACE inhibitörleri öksürük ve bronospazm gibi semptomlar oluşturabilir. Antimigren bir ilaç olan metiserjid mediastinal ve retroperitoneal fibrozise yol açabilir. Bleomisin, karbamazepin, penisilin, fenitoin vs kullananlarda hiler veya mediastinal büyümüş lenf nodları gözlenebilir.Myastenia gravis hastalarında IV aminoglikozid uygulanması sonrası nöromusküler tutulum ile akut solunum yetmezliğine yol açan solunum kas paralizisi oluşabilir.

Toksisitenin patofizyolojisi net olmamakla birlikte birçok mekanizma aydınlatılmıştır.Bazı ilaçlar akciğerlerde endotel hücreleri üzerinde direkt toksik etkiye sahiptir. Endotel hasarı ile kan bariyeri bozulur ve proteinler önce interstisyuma sonra da alveollere geçer. Proteinler burada kompleksler ve sonuçta hyalen membranlar oluşur. Ayrıca eksuda vasfında sıvıda alveollere geçerek hipoksi oluşturur. Bu dönemde maruziyet devam ederse organize pnömoniye gidiş olur. Yine bazı ilaçlar immün kompleksler oluşturur (ya immünojenik mekanizmalarla veya hapten rolü oynayarak). Bu olgularda nonspesifik interstisyel pnömoni veya lenfositik interstiyel pnömoni paternleri oluşur. Toksisiteye bağlı olanlarda reaksiyon doza bağımlı olarak izlenir (amiodaron, bleomisin, siklofosfamid gibi). Ancak immünolojik mekanizmalarla gelişenler ise dozdan bağımsız oluşur

Genel olarak kemoterapötik ilaçlara bağlı sık görülen yan etkiler bulantı ve kusmalar ve doz ilişkili miyelosüpresyon olmakla birlikte ilaçların kendine özgü daha sipesifik toksisiteler de bulunabilmektedir. Alveolar epitel hücreleri üzerine direkt toksik etki, inflamatuvar immün cevabın indüklenmesi ve endotel hücre hasarı ya da kapiller sızıntı sendromuna neden olacak aktivasyon gibi pulmoner toksisite için farklı mekanizmalar ileri sürülmüştür. İlaç ilişkili akciğer toksisitesinin kardinal semptomu dispnedir. Yama tarzı pulmoner infiltrasyonu ile birlikte kuru öksürük, egzersiz dispnesi, düşük derece ateş, ve göğüs ağrısı gibi semptomlar yavaş veya akut olarak gelişebilir. Bazen tablo akciğer yetmezliğine ilerler. Erken steroid kullanımı ve O2 desteğinden kaçınmak progresyonun derecesini azaltabilir.

İlaçlara bağlı pulmoner toksisitede tanı çoğu zaman benzer patolojilere sebep olan diğer nedenlerin ekarte edilmesine dayanır. Hastalık ilaç kullanımından sonraki birkaç gün içinde ortaya çıkabileceği gibi bazen de ilacın yıllarca kullanılmasından sonra ortaya çıkar

Tanıda ayrıntılı bir öykü yanında, fizik muayene, laboratuvar tetkikleri, solunum fonksiyon testleri ve gerektiğinde bronkoskopi, biyopsi gibi invaziv girişimler yapılmalıdır. Ayrıca ekokardiyografi, balgam gram boyama, balgam kültürü ile vaskülit ve konnektif doku hastalıkları tanısında gerekli immünolojik belirteçler araştırılabilir. Spesifik markerlar histolojik bulgular radyolojk görüntüleme non spesifik bulgular verir Yüksek çözünürlüklü BT parankimal değişikliklerin varlığı ve dağılımını detaylı göstermede, ayırıcı tanıda ve tedaviye yanıtı belirlemede son derece yararlıdır. Ancak spesifik tanıyı koymada yetersizdir. Hastalarda altta yatan kalp yetmezliği, enfeksiyon, malignite ekartasyonu gerekir Solunum fonksyon testlerinde genellikle restriktif patern solunum yetmezliği görülür. İlaç kullananlarda yeni ve ilerleyici solunum yakınması olan her hastada ilaç reaksiyonları muhakkak düşünülmelidir.

Acilde torakotomi ve krikotirotomi yapabilir miyiz?

Doç. Dr. Suna ERAYBAR ATMACA

Sağlık Bilimleri Üniversitesi, Bursa Tıp fakültesi Bursa Şehir Hastanesi SUAM

Resüsitatif torakotomi (RETO):

Acil servis torakotomisi ya da resüsitatif torakotomi; genel olarak acile gelmeden kısa bir süre önce arrest olmuş veya acilde arrest olan ya da pre-arrest durumdaki, ameliyathaneye transportu için geçecek zamanı 'çok değerli' olan travma hastasında uygulanır. Travmalı hastaların ancak %1-2'sinde yapılabilen hayat kurtarıcı bir müdahaledir

Resüsitatif torakotomide amaç; perikardiyel tamponadın boşaltılması

intratorasik veya kardiyak kanamanın kontrolü, bronkovenöz masif hava embolisinin veya bronkoplevral fistülün kontrolü, açık kalp masajı uygulaması, linen torasik aortanın geçici olarak oklüzyonudur

RETO nun uygulanması travma merkezleri ile sınırlandırılmamasına rağmen; sınırlı kan bankası kapasitesine ve yeterli cerrahi veya yoğun bakım desteğinden yoksun acil servislere başvuran hastalara yapılmamalıdır.

Resüsitatif torakotomi endikasyonları tartışmalıdır. Travmatik bir kardiyak arrestten sonra resüsitasyon, yoğun kan ürünü ve kaynak gerektiren bir girişimdir ve arresti tetikleyen kanamayı cerrahi olarak durduracak kimse yoksa, göğsün açılması ölümcül bir prosedür olacaktır. Diğer taraftan, endike olduğu halde RETO işlemini yapmamak % 100 mortalite ile sonuçlanır. Doğu travma cerrahisi derneği Acil servis torakotomisi için hasta seçimine kanıta dayalı bir yaklaşım getirmiştir

Doğu kılavuzlarında hasta seçiminde , Amerikan Cerrahlar derneği Travma Komitesi tarafından tanımlanan vital bulgular ile eş zamanlı değerlendirilmesi gereken yaşam belirtilerine değinilmiştir. Yaşam belirtileri ; pupil cevabı, solunum çabası,, ekstremite hareketi veya kardiyak elektriksel aktivite varlığıdır.

Bu klavuzda resüsitatif torakotomi için 6 senaryo üzerinde durulmuş ve öneri düzeyleri bu senaryolar üzerinden şekillendirilmiştir.

Nabız yok/yaşam belirtileri var ve penetre yaralanma; GÜÇLÜ ÖNERİ - Torakotomi yapılmalı: sağ kalım %21.3 (182/853), nörolojik iyileşme %11.7(53/454)

Nabız yok /yaşam belirtileri yok ve penetre yaralanma; ZAYIF ÖNERİ
sağ kalım %8.3 (76/920), nörolojik iyileşme %3,9(25/645).

Nabız yok/yaşam belirtileri var ve künt travma; ZAYIF ÖNERİ
sağ kalım %4,6 (21/454), nörolojik iyileşme %2,4(7/297). Nabız yok /yaşam belirtileri yok ve künt travma; GÜÇLÜ ÖNERİ - Yapma
sağ kalım %0.7 (7/995), nörolojik iyileşme %0,1(1/825).

Batı travma derneği, hastaları kardiyak arrest süresine göre sınıflamıştır. Künt travmatik arrestler için 10 dakikadan az ve penetran travmatik arrestler için 15 dakikadan az KPR uygunlanmış hastalarda AS torakotomisi faydalı olarak değerlendirilmektedir. Yaşam belirtileri varlığı ya da sistolik kan basıncı 60 mmHg altında olduğu refrakter şok durumunda kardiyak tamponat düşünülerek resüsitatif torakotomi yapılabilir deniyor çünkü penetran kardiyak yaralanmada başarı şansı oldukça yüksek

Kılavuzların klinik yargının yerini alması amaçlanmamıştır, ancak karar verme sürecini desteklemeyi hedeflemektedir. Yaşam belirtileri olan penetran toraks yaralanmalarında şiddetle önerilse de acil servis torakotomisi

gerçekleştirme kararı; büyük ölçüde acil hekiminin deneyimine, kullanabileceği kaynaklara, cerrahi desteğe ve yoğun bakım olanaklarına bağlıdır

Krikotirotomi

Daha az invaziv yöntemlerle yeterli oksijenasyon ve ventilasyonu sağlayamadığımız hastalarda uyguladığımız girişimdir. Entübe edemediğimiz, elimizdeki teknik ekipman dahilinde gerek supraglottik havayolu yöntemleri, gerekse videolaringoskopi gibi fiberoptik yöntemlerle, çoğunlukla anatomisi sorunlu hastalarımızda uygun ventilasyon ve oksijenzasyon sağlayamadığımız hastalarda cerrahi havayolu endikedir.

Özellikle; masif üst solunum yolu kanaması, masif regürjitasyon, maksillofasiyal travma, hava yolunun yapısal anormallikleri (doğuştan veya edinsel) durumlarda endikedir.

Rölatif kontrendikasyonlar: < 10 yaş altı (5 yaş mutlak) iğne krikotirotomi öneriliyor, varolan laringeal patoloji (kitle, inflamasyon), anatomik bariyerler (hematom, penetran yaralanma), koagülopatidir

Krikotirotomi cilt üzerinden krikotiroid membranı geçerek yapılan, hastaya acil havayolu sağlayan invaziv bir işlem temelde.

Mevcut kanıtlar zor entübasyon zor oksijenizasyon durumunda açık bir "cerrahi" yaklaşımı) desteklemektedir.

Bir dizi cerrahi teknik tarif edilmiştir, ancak birinin diğerine üstünlüğüne dair net kanıtt yok. Bazı tekniklerde deri ve krikotiroid membran sırayla kesilir; diğerlerinde, tek bir kesi tavsiye edilir. Tekniklerin hepsinin ortak adımları vardır: boyunun ekstansiyonu, krikotiroid membranın tanımlanması, cilt ve krikotiroid membran insizyonu ve direk ya da buji yardımıyla trakeal tüp yerleştirilmesidir.

Komplikasyonlar Tiroid kıkırdak, krikoid kıkırdak veya trakeal halkaların yırtılması, kanama, tüp malpozisyonu, özefagus ve laringeal sinirde hasar, pnömotorakstır.

Kaynaklar:

1. Burlew CC, Moore EE, Moore FA, Coimbra R, McIntyre RC Jr, Davis JW, Sperry J, Biffl WL. Western Trauma Association critical decisions in trauma: resuscitative thoracotomy. J Trauma Acute Care Surg. 2012 Dec;73(6):1359-63
2. Laura Jayne Watson, Peter Coyne, Resuscitative thoracotomy, Surgery (Oxford), Volume 39, Issue 7,2021, 423-429
3. Paulich S, Lockey D. Resuscitative thoracotomy. BJA Educ. 2020 Jul;20(7):242-248.
4. Seamon, Mark J. MD; Haut, Elliott R. MD, PhD; Van Arendonk, Kyle MD; Barbosa, Ronald R. MD; Chiu, William C. MD; Dente, Christopher J. MD; Fox, Nicole MD; Jawa, Randeep S. MD; Khwaja, Kosar MD; Lee, J. Kayle MD; Magnotti, Louis J. MD; Mayglothling, Julie A. MD; McDonald, Amy A. MD; Rowell, Susan MD, MCR; To, Kathleen B. MD; Falck-Ytter, Yngve MD; Rhee, Peter MD, MPH. An evidence-based approach to patient selection for emergency department thoracotomy: A practice management guideline from the Eastern Association for the Surgery of Trauma. Journal of Trauma and Acute Care Surgery: July 2015 - Volume 79 - Issue 1 - p 159-173
5. Konig, T., Perkins, Z. & Davies, G. Training non-surgeons to perform resuscitative thoracotomy. Scand J Trauma Resusc Emerg Med 21 (Suppl 1), A2 (2013). https://doi.org/10.1186/1757-7241-21-S1-A2
6. https://www.uptodate.com/contents/emergency-cricothyrotomy-cricothyroidotomy#:
7. Langvad, S., Hyldmo, P.K., Nakstad, A.R. et al. Emergency cricothyrotomy – a systematic review. Scand J Trauma Resusc Emerg Med 21, 43 (2013). https://doi.org/10.1186/1757-7241-21-43
8. Frerk C, Mitchell VS, McNarry AF, Mendonca C, Bhagrath R, Patel A, O'Sullivan EP, Woodall NM, Ahmad I;

Difficult Airway Society intubation guidelines working group. Difficult Airway Society 2015 guidelines for management of unanticipated difficult intubation in adults. Br J Anaesth. 2015 Dec;115(6):827-48.

9. Higgs A, McGrath BA, Goddard C, Rangasami J, Suntharalingam G, Gale R, Cook TM; Difficult Airway Society; Intensive Care Society; Faculty of Intensive Care Medicine; Royal College of Anaesthetists. Guidelines for the management of tracheal intubation in critically ill adults. Br J Anaesth. 2018 Feb;120(2):323-352.
10. Federico Mazza, Massimiliano Venturino, Davide Turello, Alberto Gorla, Cristina Degiovanni, Alessandro Locatelli, Giulio Melloni. Cricothyroidotomy in the emergency setting: indications, techniques and outcomes. Signa Vitae. 2021. 17(3);31-41.

Management of Exaggerated Sensational Conditions in Global Eyes Tracking

Bahadır Karaca

Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine

Disasters are natural, technological or human-induced events that stop or interrupt normal life and human activities and cause physical, economic or social losses to the whole or part of the society that exceed the coping capacity of the victims and their acceleration due to disasters, whether they are human or natural events. There are some areas that need and increase in importance. One of these areas is the field of communication. Today, there is a communication infrastructure that can spread an event that occurs in a region to the whole planet in seconds. Although the number of people affected by the event is small, there are disasters where the number of people who are aware of the events and who are in communication is asymmetrical.

It is not a disaster, but an emergency or events that stop or interrupt the normal life and activities of certain segments and require urgent intervention, and the case of children trapped in the Tham Luang cave in Thailand, which is the crisis situation created by these events, can be given as an example. It took 17 days to rescue 12 children and their coaches. During this period, people at all levels around the world were able to be aware of this event and closely monitor the process. Today, typhoons affecting very large masses, images of individuals affected individually, and satellite images showing the entire hurricane can reach all parts of the world. Even though they do not live in the disaster area, people who do not exclude the possibility of their own disaster are watching the events with curiosity and concern. Although the communication explosion caused by the unique situations created by the disasters in itself, did not change the essence of communication in disasters with the developing communication environments, it deeply affected its content and form.

Both in the world and in our country, the perspective on disasters has changed with the experiences experienced after disasters have been encountered, and institutional structures have been transformed in order to put the practices of newly formed intellectual frameworks on disasters into practice. These institutions also determined the work of the units that will respond to disasters or be prepared through their Regulations: Sendai Framework for Disaster Risk Reduction under the umbrella of the United Nations and in our country, the Presidential Decree No 4 is the current documents of these processes.

Disaster and Communication

Standardization is very important to establish the necessary infrastructure and ensure continuity in order to ensure the transfer of reliable information to decision makers when a disaster event occurs. After this is achieved, there are no suggestions beyond the necessity of using a simple, transparent, easy-to-understand style for the evaluation of the information obtained through the information flow and especially for sharing it with the public.

In providing communication with the public in disasters, it is an accepted situation that the message sender is the local authority, senior public officials at the national level or expert authorities. With the age of digital communication, the transformation in world politics and economy has also been reflected in communication in disasters.

Disaster crisis and public relations

The fact that the administrations want to know what the people think and want to be the closest to making decisions in that direction positions the people as a force that should be taken into account against the administrations. This is an issue that is also taken into account for public and private institutions. Governments bear responsibility towards the governed in their actions and actions and therefore have to be open to them.

Administrations can enlighten the public and learn what they think through public relations studies. The circles who see that their own thought demands are reflected in the decisions taken also support the practices of the administration. Thus, management and managed cooperation are born. In this way, governments can persuade the public through public relations activities. Although it is said that the emergence of public relations can be handled with the emergence of managed-managed seller-customer relations, the understanding that it is inevitable for the administrations emerged in the great depression of 1929. Until then, important events, wars, elections, local strikes, and public relations, which emerged as an application of extraordinary periods, became a technique that had continuity for both private and public and should be applied in every period after the great depression of 1929. After that, public relations became both an indicator of social responsibility and an indispensable tool of social motivation.

Periods of crisis have a close relationship with the practice of public relations. In the environment created by the 1929 economic crisis, public relations studies have a critical importance in overcoming the crisis and the rise of the field to professional lark took place in that period. Afterwards, the management function of public relations, which determines the relationship, process and policies between the organization and the public, had to change. Until 15-20 years ago, traditions and customs were important for the continuity of corporate culture organizations, but with the effect of changing business environments, these features have become features that delay responding to changes by creating a cumbersome structure. The shortening of the time between economic crises, the deepening of social crises, and the transformation of policy making into crisis management styles. In this period, human skills, accumulation, bureaucratic structure of institutions and hierarchical structure of seniority lose their meaning, and an understanding that concentrates on the instantaneous capacity of the person prevails.

The century we live in is a century in which technology is one of the main determinants, time gains importance, but the elements in the great social and economic system are not compatible with each other. The incompatibility between the elements that make up the system creates an extraordinary condition and environment that we call crisis in the name of conflict. crisis in general; It is a tension situation that is unexpected and unpredictable, but needs to be responded to immediately, that threatens the current values, goals and image of the organization by rendering the organization's survival, adaptation and defense mechanisms inadequate. As the factors causing the crisis; deterioration and instability in the economic system, technological changes, political and legal factors, weakness of public administration, outbreak of war, natural disasters such as earthquakes, floods and fires can be discussed.

It refers to a profession operating under the names of public relations perception management, reputation management, corporate communication, communication consultancy, media relations etc. This profession maintains its continuity by taking information from theories of communication science, sociology, psychology and social psychology, even anthropology, political science, and medicine.

Public relations have a positive image in a certain segment or the whole of society in favor of a person (for example, a doctor), a group (for example, emergency service workers), a group (for example, disaster-affected community), an institution (for example, a hospital), an organization (for example, AKUT). It refers to all of the planned activities carried out in order to create Explains public relations in health, public relations practices in the field of health. These applications can be of many different sizes. Crisis management is one of these dimensions and is one of the leading fields of study.

In its simplest definition, communication refers to a process that is coded from a source, overcoming the noise factor on the communication channel, and the message that reaches the target, which will open the codes in question, is encoded, and the message that reaches the target, which will open the codes, is directed back to the source as a reaction. There are 5 basic elements at the core of the communication process: the source of the message, the receiver of the message, the message itself, the medium in which the message is transmitted (media) and feedback. In disaster situations, both the patient and the communication, and the mass communication

made through the press can be looked at on the basis of these five elements.

In order to manage the process in times of crisis, a special unit must be established. This team, which will take part in the communication studies of the crisis management team, can also be called the crisis communication team. It is the main element of the crisis management team. The number of people who will take part in this team is determined according to the characteristics of the crises themselves. This team should take over the authority and establish communication with the environment as soon as the symptoms of the crisis are received or the crisis situation is first noticed. Everyone should be prevented from giving information to the media as they wish. This restriction is not a censorship, it is intended to filter information to avoid misinformation.

One of the most important tasks in times of crisis is communication planning. Who will represent the relevant institutions or organizations against the media, who will take responsibility for the press conferences, what limitations will be in the relations of senior executives with the media, what information will be disclosed when and by what methods should be determined in the communication plan. It is clear that there will be differences in relations with the media compared to normal periods.

Table 1. Comparison of public relations action in Normal and Chaos/crisis times

Public Relations Action	in Normal Times	in Times of Chaos/Crisis
Communication	Opposite	Mutual Intense
Organizational understanding	Teaching/Speaking	Learner/Listener
Communication mentality	Strategic	Tactical
Planning	Yearly	Momentary
Messages	Confidence, Self-Expression	Trust, Usefulness, Relationship
Inside communication	Hierarchical	Flexible
Organizational structure	Static	Dynamic
Focus	Organization	Public
Target group	Group	Individual
Relationship	Education, Awareness	Momentary

Change in Communication Channels

During the cold war, the US army started studies to establish an infrastructure that would maintain communication after a nuclear attack. The foundation of the internet developed by this defense project was laid. With the discovery of its commercial aspect, the Web was developed with the main idea of human-to-human communication. With the development of web browsers, the development phases of information technologies began.

- Web 1.0 (1995-200) In the first period of the internet, the user was using the internet only to get information from the computer.
- Web 2.0 (2001-2006) users could enter their own entries into websites. This development led to the emergence of sites such as facebook, yuotube and amazon.
- Web 3.0 (post-2006) led to the development of user-oriented social media technologies. It is the rising period of Twitter, Instagram, Wikipedia etc.
- Web 4.0 is the period when online networks are established, with 24-hour uninterrupted communication to organize all internet data, access to the internet from anywhere with mobile phones, and artificial intelligence augmented reality big data transfers.

The development of social networks has created significant transformations in the speed and scope of communication. In disaster events, it has become possible to share information about the situation in social circles with applications such as Facebook. The most important result of this process has been the enormous increase and

uncontrollability in the feedback part of the communication process. Now thousands of feedback can be added under a Twitter post. A Facebook image or post can be shared thousands of times in a short time and reach a wide audience. Live footage of the event can be viewed from all over the world via mobile phones.

The transformation of this situation in public relations practices is also reflected in disaster events. After a disaster event, the content of the statements of senior officials becomes very important. Incomplete information and inadequate disclosure undermine trust and negatively affect state-organization public communication, while also creating a basis for political manipulations. Since the posts made during the crisis can negatively affect people and institutions, it becomes a necessity to control such swayings with the "broadcast ban" mechanism. Broadcasting ban can be adopted as a method to prevent the dissemination of incomplete, false and manipulative information in directing the public's knowledge and opinions on the subject.

In Progess and After

Today, there is no detailed legislation as the field of public relations practices in times of crisis. However, a road map can be drawn with observations obtained from theoretical and practical experiences.

First Term Public Relations Activities

In the first period, the discussion will begin with the disaster. Training from disaster-related education and training materials will be discussed first. The personalities of the disaster throughout their entire stature, from above and from above, the best information to be examined, on the one hand, is constant communication with the external environment. It is designed to affect the outside of the crisis. Key personnel should be called in according to the designed plan.

Second term public relations activities

- The organization informs its environment about the crisis,
- Informing the employees,
- Informing the target audience of the organization about the crisis and
- It can be divided into sub-headings as informing the media.

At this stage, it is one of the main duties of the people who carry out public relations to convey the messages of the organizations fighting against the disaster by using the communication channels with an active, honest and rational initiative to communicate with the internal and external target groups and to provide communication support to the management.

The groups or persons to whom institutions responsible for intervention in post-disaster crisis management can be considered as the target group may vary; It may be necessary to establish relations with a number of groups such as various public or private sector managers, employees, relatives of employees, users, consumers, shareholders, residents of a certain place. Although the target audience will be communicated in different ways and forms, it is necessary to pay attention to the fact that the messages that can be sent to them do not contradict each other and are consistent.

For the crisis management team, directing the crisis communication is as important as directing the crisis. Every void of communication errors will be filled with gossip, rumor, misunderstanding and nonsense. Leaving the target audiences without comment and keeping the information confidential prepares the ground for the situation that has arisen as a cause of speculation to not reach very different dimensions. The emergence of rumors and gossip reaches a higher rate in cases where information to explain important events on the agenda is not available.

Informing the press

Pre-disaster preparations should include organizing a press room for members of the press. All kinds of opportunities should be provided to members of the press to provide interview opportunities (internet, telephone, fax, etc.)

The consequences of the crisis should be clearly stated and conveyed to the public and the target audiences of the institutions through members of the press. In relations with the press, the main goal is to establish "trust" in the public, and the acceptance of the leadership of the institutions struggling in disasters by those affected by disasters and the public, thus increasing the effectiveness of the planned execution of the struggle.

Press tips on crisis management:

- First get rid of your paranoia (they aren't there to do anything to you, they want information)
- Give existing information,
- Direct the members of the press
- Be honest. (share your information, admit mistakes, apologize if necessary)
- Tell the truth
- Don't forget your target audience while giving information (you don't just give information to newspapers, you also deliver information to your target audience through them)
- Stick to your organization's crisis management plan
- Recognize the fact that you have to devote a lot of time to the crisis process
- Try to treat everyone equally. Strive to overcome the crisis.

Post-crisis public relations

While informing about the work done, it should be aimed to develop the images of the institutions that carry out the work. The image should be such that it should be clear and comprehensible not only for the management of the institutions, but also for the management team and employees, who came out of the crisis with great fatigue, to understand in plain language.

Despite the fact that AKUT was very few in number compared to public institutions and organizations in the 1999 Marmara Earthquake, the disproportionate image created in the press led to low motivation in the employees of other institutions.

Structural transformations in which the necessary communication strategy will be determined so that institutions can carry out their work with all their capacities in the patient-physician relationship and mass communication through the press after disasters, and the entry into the field of application within the framework of the academicians of the communication field should be the important agenda of the communication field.

References

1. https://www.reuters.com/article/us-health-coronavirus-syria-northwest-idINKBN24A31P
2. Https://www.bbc.com/turkce/haberler-dunya-44745470
3. https://edition.cnn.com/videos/world/2021/10/11/syria-covid-19-idlib-province-karadsheh-intl-ctw-vpx.cnn
4. https://www.aljazeera.com/news/2022/8/17/suicides-on-the-rise-in-opposition-held-areas-of-syria
5. https://www.aljazeera.com/news/2022/9/26/syrian-health-ministry-says-cholera-death-toll-rises-to-29

6. Taylan, A., & Ünal, R. (2017). ANA AKIM MEDYADA SANSASYONEL HABERCİLİK: SAĞLIK İLETİŞİMİ ÖRNEĞİ. Atatürk İletişim Dergisi, (14), 27-44.
7. Taşyürek T., Hasta ve Basın Bilgilendirme Uygulamaları. Afet Yönetimi ve Tıbbi Uygulamalar-Temel Başvuru kitabı, Sayfa:397-403

TOTAL CIRCULATORY ARREST

Dr. Tuba Betül Ümit

Tokat Public Hospital, Turkey

Total circulatory arrest (TCA), also known as deep hypothermic circulatory arrest (DHCA), is a surgical method used in aortic dissection, aortic aneurysm and aortic arch operations. It was first used by Griepp in 1975. In this way, surgery of some complex cases has become possible.

DHCA is based on the complete cessation of circulation after the body temperature is lowered below 18 degrees. One of the mechanisms that prevent nerve and tissue damage is to reduce ATP consumption by reducing glucose demand. The other is to minimize the effect of hypoxia with hypothermia. Cerebral metabolism of oxygen decreases by 50% at every 6 °C fall in brain temparature. As a result, DHCA allows the surgeon to work in a bloodless field without cluttering effects of multiple cannulas

If cooling is done slowly in patients, ventricular fibrillation rhythm was not observed in the heart up to 22-24 °C rectal. Prolonging the cooling time allows the brain and body to cool homogeneously. Nasopharyngeal and tympanic probes are preferred for temperature monitoring. After reaching 22-24 °C, rapid cooling is done by switching to high flow bypass. Iced bags can be placed over the carotid artery and around the cranium to provide good cooling of the brain. Hypoglycemia and hyperglycemia are avoided during the operation. The use of anesthetic agents such as long- and short-acting barbiturates slows down the brain metabolism and increases the tolerance of the brain to ischemia. Simultaneously, brain activities are monitored with EEG. The patient is placed in the trendelenburg position and deep hypothermic total circulatory arrest is initiated. Studies and clinical experience show that 45 minutes is a safe arrest period. In addition, better results are obtained when atherograde cerebral perfusion (ASP) is used.

The postoperative mortality of DHCA is between 7-15%. Postoperative care aims to reduce or eliminate factors that may worsen the neurological outcome, management of coagulopathy, early detection and treatment of low cardiac output syndromes, other organ dysfunctions such as kidney, liver, lung and intestine, and prevention of infection and sepsis.

TCA/DHCA remains a time-tested strategy for achieving a bloodless, uncluttered surgical field for complex aortic surgery operations. Newer neuromonitoring and neuroprotective methods have improved the safety margin of DHCA.

TROMBOZA NE YAPMALI? MEKANIK MI? MEDIKAL MI?

Dr. Öğrt. Üyesi Ali SAĞLIK

İstinye Üniversitesi Fakültesi Acil Tıp AD

Reperfüzyon tedavisi kullanarak serebral kan akışının zamanında restorasyonu, mevcut enfarktüslü olmayan iskemik beyin dokusunu kurtarmak için en etkili yöntemdir. Reperfüzyonun faydası zamanla azaldığından, bunun başarılabileceği dar bir zaman penceresi vardır. Reperfüzyon Terapileri trombolitik tedavi, ultrason tedavisi, antiplatelet ajanlar, mekanik trombektomi (MT) içermektedir. Trombolitik tedavide, akut iskemik inmeli hastalarda yarar sağladığı gösterilen tek fibrinolitik ajan alteplazdır (rt-PA). Bir rekombinant doku plazminojen aktivatörü (tPA) olan alteplase, trombüs içinde fibrine bağlanarak ve plazminojeni plazmine dönüştürerek lokal fibrinolizi başlatır. Buna karşılık, plazmin trombüsü parçalar. Fibrinolitikler (yani, rt-PA), akut iskemik inmeli bazı hastalarda serebral kan akışını eski haline getirir ve nörolojik defisitlerin iyileşmesini veya gerilemesini sağlayabilir. Trombolitik tedavini komplikasyonları arasında semptomatik intrakraniyal kanama, ekstrakraniyal kanama, anjiyoödem ve alerjik reaksiyonlar sayılabilir. Bu nedenle Amerikan Kalp Derneği/Amerikan İnme Derneği'nin (AHA/ASA) rt-PA yönetimine ilişkin dahil etme / dışlama kriterleri büyük ölçüde fibrinolitik kullanımla ilişkili hemorajik komplikasyon riskini belirlemeye odaklanır. [1]

European Cooperative Acute Stroke Study III (ECASS III) 'de semptom başlangıcından 3-4,5 saat sonra uygulanan fibrinolitik tedavinin nörolojik sonuçları iyileştirdiği tespit edilmiştir.[2] Bu ve diğer verilere dayanarak, Mayıs 2009'da AHA/ASA, rt-PA'nın uygulanmasına yönelik kılavuzları yeniledi ve akut inmeden sonra, daha fazla hastaya bu tedaviden yararlanma fırsatı sağlamak için tedavi penceresi 3 saatten 4,5 saate çıkarıldı. 6756 Akut iskemik inmeli hastayı kapsayan, trombolitik tedavi etkilerini inceleyen dokuz çalışmadan oluşan bir meta-analizde, araştırmacılar, inme başlangıcından sonraki 4,5 saat içinde IV rt-PA uygulamasının, yaş veya inme şiddetinden bağımsız olarak sonuçları önemli ölçüde iyileştirdiğini tespit ettiler.[3] Bir saatlik IV rt-PA'nın uygulanmasında toplam doz 0,9 mg/kg(maksimum doz 90 mg) olarak hesaplandıktan sonra dozun %10' u bir dakika içerisinde IV bolus olacak şekilde, geri kalan miktarın 60 dakika gitmesi planlanmalıdır. Eğer hastada şiddetli baş ağrısı, tansiyon yüksekliği, bulantı, kusma veya kötüleşen bir nöroloji bulgu gelişirse devam etmekte olan IV rt-PA'nın durdurulması ve acil beyin BT planlanması gerekmektedir. IV rt-PA infüzyonundan sonraki ilk 2 saat içerisinde her 15 dakikada bir, sonrasındaki 6 saat boyunca her 30 dakikada bir ve geriye 16 saat boyunca her saat başı tansiyon takibi ile nörolojik değerlendirme yapılmalıdır. Eğer sistolik kan basıncı 180 mmHg dan veya diastolik kan basıncı 105 mmHg dan yüksekse kan basıncı değerlerini bu seviyelerin altında tutmak için antihipertansif tedaviler uygulanmalıdır. Hastanın yönetiminde zorluk yaşanmıyorsa nazogastrik tüp, kalıcı mesane kateteri ve intraarteriyel basınç kateterlerinin uygulanması ertelenebilir. Antikoagülan veya antiplatelet ajanlara başlamadan önce IV rt-PA' dan 24 saat sonra bir takip BT veya MRI taraması yapılmalıdır.

Bir randomize klinik çalışmada, fibrinolizde rt-PA'ya yardımcı olmak için transkraniyal ultrason kullanımını incelenmiş ve ultrasonun, trombüse mekanik basınç dalgaları ileterek teorik olarak trombüsün yüzeyinin daha fazlasını dolaşımdaki fibrinolitik ajana maruz bırakabileceği düşünülmüştür.[4] Ancak çalışma sonucunda akut iskemik inmede fibrinolitiklere yardımcı olmada transkraniyal doppler ultrasonun kesin rolünü belirlemek için daha fazla araştırma gerektiği sonucuna varılmıştır.

AHA/ASA kılavuzları, iskemik inme başlangıcından sonraki 24-48 saat içinde ağızdan 160- 300 mg arası aspirin verilmesini önermektedir. Aspirinin faydası orta düzeydedir ancak istatistiksel olarak anlamlıdır ve esas olarak tekrarlayabilecek inme riskinin düşürülmesinde önemlidir. Hastaların tedavisinde aspirinin güvenliği ve yararı, 160 ile 300 mg arasında dozların uygulandığı 2 büyük klinik çalışma ile belirlenmiştir. Bu, yakın zamanda aspirin denemelerinin geniş bir Cochrane incelemesi ile doğrulanmıştır. İnme hastalarının tedavisinde alternatif antipla-

telet ajanların kullanımına ilişkin sınırlı veri mevcuttur. Ancak aspirin kontrendikasyonu olan hastalarda alternatif antiplatelet kullanımı mantıklı olabilir. Seul' de tek bir merkezde yapılan retrospektif bir çalışmada, IV rt-PA veya endovasküler tedavi sonrası ilk 24 saati içerisinde antiplatelet veya antikoagülan ajanın başlanmasıyla, 24 saat sonra başlamasının kıyaslanmasında kanama açısından herhangi bir artışa neden olmadığı gösterilmiştir.

Mekanik trombektomi, anterior dolaşımda büyük bir arter oklüzyonu nedeniyle akut iskemik inmeli hastalarda, intravenöz trombolitik verilip verilmediğine bakılmaksızın, hastanın nörolojik olarak iyi olduğu bilinen en son zamandan sonraki 24 saat içinde endikedir. AHA/ASA güncellenmiş kılavuzları, belirli hastalarda MT zaman sınırını 6 saatten 24 saate çıkarmaktadır.[1] Yeni kılavuzlar uygun hastalarda inmeden 6 ile 16 saat sonra trombektomi yapılmasını önermektedir. Ayrıca IV rt-PA için uygun olmayan hastaların, 6 saat içerisinde MT endikasyonu oluşturarak sağ kalımını arttırmaktadır. İskemik inmede erken BT bulgularının değerlendirmesinde oluşabilecek bu karışıklıkları önlemek ve objektif değerlendirme yapabilmek için Alberta Stroke Programme Early CT (ASPECT) skoru hesaplanması kullanılır. Avrupa İnme Organizasyonu'nun önerilerine göre, 0-6 saatlik zaman aralığında, geniş enfarktüs alan kanıtı olmayan büyük damar oklüzyonu ile ilişkili anterior sirkülasyon inmesi olan hastalarda (örn., kontrastsız BT'de ASPECTS ≥6 veya tarama veya enfarktüs çekirdek hacmi ≤70 mL) tek başına medikal tedavi yerine MT' ye ek olarak medikal tedavi (IV tromboliz tedavisi dahil) ile yönetimi öneriliyor. İlk 4.5 saatte nörolojik defisitle tanı alan iskemik inmeli hastalara IV rt-PA başlanması önerilir. Bu zaman penceresindeki hastalar da MT için aday olup olmadıklarının belirlenmesi açısından değerlendirilmelidir. İnme semptomlarının başlangıcından itibaren 4,5 ve 6 saat dilimi içinde olan hastalar, yarar/zarar oranından rutin olarak IV rt-PA almamalıdır, ancak mekanik MT için aday olup olmadıklarını belirlemek için değerlendirilmelidir. İskemik inme semptomunun başlangıcından 6 saat sonra hastalar IV rt-PA tedavisi için uygun değildir. Bununla birlikte, en son nörolojik açıdan normal olarak izlendikten sonraki 6 ile 24 saat içerisinde olduğu bilinen veya anterior dolaşımda büyük damar tıkanıklığı olan inmeli hastaların uzmanlaşmış inme merkezlerinde MT tedavisini alması en iyisidir. Proksimal büyük damar oklüzyonu olan ve MT uygulanan hastalarda MT öncesi trombolitik tedavinin faydalı olup olmadığını incelemek amacı ile akut iskemik inmede kombine intravenöz tromboliz ve MT ile tek başına MT tedavisinin karşılaştırıldığı bir post hoc analiz çalışmasında, iki büyük prospektif klinik çalışmanın havuzlanmış veri setinden oluşan, akut iskemik inme sonrası MT ile tedavi edilen 291 hastanın verilerini kullanıldı. Bu hastaların % 55'ine MT' ye ek olarak intravenöz tromboliz ve %45'ine sadece MT uygulandı. IVT ve MT alan hastalarda, tek başına MT ile tedavi edilen hastalarla karşılaştırıldığında, atriyal fibrilasyon (53 [33.1%] vs 62 [47.3%], *P* = .02) ve diyabete (22 [13.8%] vs 32 [24.4%], (P = .02) atfedilebilecek kardiyoembolik inme sıklığı daha düşüktü. Aynı zamanda hastaların ASPECTS skorlarında daha düşük medyan özellikleri (8'e karşı 9, P = .04) gözlemlenmişti. İki kontrol grubunda da semptomların açığa çıktığı süreden, iskemik inme alanının reperfüzyon süresi arasında geçen zaman benzer olarak gözlemlendi. (P= .15)

Komplikasyonlar olarak; vazospazm, IVT ve MT alan hastalarda daha sık meydana geldi (43 [%26,9]'a karşı 18 [13,7%], P = .006). IVT ve MT ile tedavi edilen hastalarda semptomatik intrakraniyal kanama (sICH) daha az sıklıkla meydana geldi (2 [%1,3]'e karşı 5 [%3,8], P = .25), ancak fark istatistiksel olarak anlamlı değildi. IVT ve MT ile tedavi edilen grupta daha yüksek fonksiyonel bağımsızlık oranı, yani 90 gün sonraki süreçte mRS (Modified Ranking Score) skoru 0-2 olan hastalar olmasına rağmen, bu datadan "bridging" terapi dozu ile IV rt-PA alan 44 hasta ekarte edildiğinde istatistiksel olarak iki grup arasında anlamlı bir fark olmadığı gözlemlenmişti. IVT kullanımı ile çalışılan herhangi bir sonuç arasında istatistiksel olarak anlamlı bir ilişki bulunmamıştı. IVT ve MT ile tedavi edilen hastalarda (sICH) riski daha düşük, etkilenmemiş bölgeye daha yüksek emboli riski ve daha yüksek fonksiyonel bağımsızlık oranı gözlemlenmişti ancak bu bulgular detaylı analizde 44 "bridging" doz tPA (0,6 mg/kg) alan hasta ekarte edildiğinde istatistiksel olarak anlamlı bir fark olarak kabul edilemedi. Endovasküler Trombektomi uygulanacak hastalarda, trombektomi öncesi tam doz (Tam doz tPA: 0,9 mg/kg) rt-PA tedavisine oranla daha düşük doz rt-PA (Bridging doz rt-PA: 0,6 mg/kg) tedavisi uygulanması ile ilgili olarak anterior dolaşımın büyük damar oklüzyonlarında öncelikle bridging IV rt-PA uygulamasının doğrudan endovasküler trombektomi ile karşılaştırılması konulu sistemik derleme ve meta analizin sonuçlarına göre akut anterior sirkülasyon oklüzyonu

olan ve intravenöz trombolize uygun olan inme hastaları için doğrudan endovasküler trombektomi ve bridging doz tPA tedavisi arasında klinik etki açısından önemli bir fark olmadığı belirtilmiştir. Ancak bulguların daha fazla randomize kontrollü çalışmalarla da doğrulanması gerektiği vurgulanmıştır.[5] Bazı çalışmalar, trombektomi önceki IVT' nin erken rekanalizasyonu kolaylaştırdığı ve ileri endovasküler tromboz riskini önlediği görüşündedir. Bu hipoteze karşıt olarak, bazı bilim adamları IVT ile ön tedavinin potansiyel hemorajik komplikasyonlara, pıhtı parçalanmasına ve distal embolizasyona neden olacağını ve trombektominin başlamasında gecikmeye yol açacağını öne sürmektedir.

KAYNAKLAR

1. Powers, W., Rabinstein, A., Ackerson, T., Adeoye, O., Bambakidis, N., & Becker, K. et al. (2018). 2018 Guidelines for the Early Management of Patients With Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. Stroke, 49(3). doi: 10.1161/str.0000000000000158

2. Hacke W, Kaste M, Bluhmki E, Brozman M, Dávalos A, Guidetti D, et al. Thrombolysis with alteplase 3 to 4.5 hours after acute ischemic stroke. *N Engl J Med*. 2008 Sep 25. 359(13):1317-29

3. Emberson J, Lees KR, Lyden P, Blackwell L, Albers G, Bluhmki E, Brott T, Cohen G, Davis S, Donnan G, Grotta J, Howard G, Kaste M, Koga M, von Kummer R, Lansberg M, Lindley RI, Murray G, Olivot JM, Parsons M, Tilley B, Toni D, Toyoda K, Wahlgren N, Wardlaw J, Whiteley W, del Zoppo GJ, Baigent C, Sandercock P, Hacke W; Stroke Thrombolysis Trialists' Collaborative Group. Effect of treatment delay, age, and stroke severity on the effects of intravenous thrombolysis with alteplase for acute ischaemic stroke: a meta-analysis of individual patient data from randomised trials. Lancet. 2014 Nov 29;384(9958):1929-35. doi: 10.1016/S0140-6736(14)60584-5. Epub 2014 Aug 5. PMID: 25106063; PMCID: PMC4441266.

4. Alexandrov, A., Molina, C., Grotta, J., Garami, Z., Ford, S., & Alvarez-Sabin, J. et al. (2004). Ultrasound-Enhanced Systemic Thrombolysis for Acute Ischemic Stroke. *New England Journal Of Medicine*, *351*(21), 2170-2178. doi: 10.1056/nejmoa041175

5.Chen Z-J, Li X-F, Liang C-Y, Cui L, Yang L-Q, Xia Y-M, Cao W and Gao B-L (2021) Comparison of Prior Bridging Intravenous Thrombolysis With Direct Endovascular Thrombectomy for Anterior Circulation Large Vessel Occlusion: Systematic Review and Meta-Analysis. Front. Neurol. 12:602370. doi: 10.3389/fneur.2021.602370

6.Coutinho JM, Liebeskind DS, Slater L, et al. Combined Intravenous Thrombolysis and Thrombectomy vs Thrombectomy Alone for Acute Ischemic Stroke: A Pooled Analysis of the SWIFT and STAR Studies. *JAMA Neurol.* 2017;74(3):268–274. doi:10.1001/jamaneurol.2016.5374

7.Ischemic Stroke Treatment & Management: Approach Considerations, Emergency Response and Transport, Acute Management of Stroke. (2022). Retrieved 11 October 2022, from https://emedicine.medscape.com/article/1916852-treatment#d15

UYANMA İNMESİNDE TROMBOLİTİK VERELİM Mİ?

Uzm. Dr. Rabia Birsen TAPKAN

Hemorajik ve iskemik inme şeklinde iki çeşit inmeden bahsedebiliriz, özellikle ilk dört buçuk saatte yakalanan inme semptomları gösteren bt de kanama bulgusu olmayan hastalar için elimizde trombolitik tedavi gibi bir güç var

Ancak konumuz 4.5 saatten fazla süre geçtikten sonra yakalanan ya da uyandığında inme semptomlar gösteren hastalarda ne yapacağımız

İskemik inme yönetiminde aha/asa guideline ını kullanıyoruz bu kılavuza 2019 da wake up inmede trombolitik tedavi ile ilgili bir güncelleme geldi

Bu güncelleme biraz sonra bahsedeceğim iki çalışmanın ışığında gerçekleşti.

Mevcut kılavuz intravenöz trombolitik tedavinin inme semptomlarının başlamasından ilk dört buçuk saat içinde başlanmasını önermektedir

Bir rekombinant doku plazminojen aktivatörü olan alteplaz İlk 4.5 saatte yakalanan uygun hastalara beyin bt dışında görüntüleme ile vakit kaybedilmeden başlanmalıdır. Ancak inmelerin %14 ile %27 sinde semptomların başlangıç zamanı bilinmemektedir. İnme semptomları sıklıkla hasta uykudan uyandığında farkedilir.

İlk bahsedeceğim çalışma bu, yani başlangıcını bilmediğimiz inme hastalarına mr kılavuzluğunda trombolitik versek nasıl olur?

İkinci çalışmaya geçersek, araştırmacılar, alteplaz ile intravenöz trombolizin, inme başlangıcından 4.5-9 saat sonra veya inme semptomlarıyla uyanmış(başlangıç zamanı bilinmeyen), hipoperfüzyon alanıyla orantısız, küçük core infarkt beyin hacmine sahip olan hastalarda yarar sağlayacağı hipotezini test etmek istemişler.

İnme semptom başlangıcı >4.5 saat olan veya uyandığında semptom gösteren hastalarda trombolitik tedavi kararı verebilmek için penumbranın doğru ve uygun şekilde tespit edilmesi gerekmektedir.

Bu hastalarda trombolitik tedavi ile kanama riski daha yüksek olduğu için uygun hasta seçiminde dikkatli olunmalıdır

HEPATİK ENSEFALOPATİYE GÜNCEL YAKLAŞIM

Uzm. Dr. Necati Akyılmaz

Hepatik ensefalopati, karaciğer yetmezliği ve/veya porto sistemik şantın neden olduğu bir beyin işlev bozukluğudur; subklinik değişikliklerden komaya kadar uzanan geniş bir nörolojik veya psikiyatrik anormallik yelpazesi olarak kendini gösterir [1]. Aşikar hepatik ensefalopati, sirozlu hastaların yüzde 30-45'inde görülür; transjuguler intrahepatik portal-sistemik şantlı hastaların ise yüzde 10-50'sinde gelişir.

SINIFLANDIRMA: Hepatik ensefalopati altta yatan hastalık, belirtilerin şiddeti, belirtilerin süre özellikleri ve tetikleyici faktörlerin varlığı durumlarına göre sınıflandırılır.

Altta yatan hastalığa bağlı sınıflama:

- Tip A: Akut karaciğer yetmezliğine bağlı hepatik ensefalopati
- Tip B: İntrensek hepatoselüler hastalık olmaksızın portal-sistemik bypass durumuna bağlı hepatik ensefalopati
- Tip C: Siroz, portal hipertansiyon veya sistemik şant sebebiyle oluşan hepatik ensefalopati

Tablo 1. Belirtilerin şiddetine göre sınıflama (West-Haven kriterleri)

Grade	Bilinç	Algı ve Davranış	Nörolojik Bulgular
Minimal	Normal	Normal	Normal muayene, patolojik sonuçlu psikomotor test
1	Ilımlı farkındalık bozulması	Dikkat eksikliği	Toplama çıkarma işlemi bozuk, ılımlı asteriksis veya tremor
2	Letarjik	Uygunsuz davranış, dezoryantasyon	Aşikar asteriksis, telaffuzda bozulma
3	Uyarıya rağmen somnolans (uyuşukluk)	Garip davranışlar, aşikar dezoryantasyon	Kas rijiiditesi ve klonus, hiperrefleksi
4	Koma	Koma	Deserebre postür

Minimal veya grade 1 hepatik ensefalopati tablosu gizli hepatik ensefalopati; grade 2-4 hepatik ensefalopati tablosu ise aşikar hepatik ensefalopati olarak ayrıca sınıflandırılır.

Kronik karaciğer hastalığında nörolojik belirtilerin süresi ve özelliklerine göre epizodik, rekürren, persistan olarak sınıflandırılır.

Tetikleyici faktörlerin varlığına göre spontan ve predispozan olarak ikiye ayrılır. Sirozu olan hastalarda hepatik ensefalopatinin predispozan faktörleri; benzodiazepinler, narkotik, alkol, gastrointestinal sistem kanaması, enfeksiyon, hipokalemi, konstipasyon, metabolik alkaloz, kusma, ishal, diüretik, radyografik veya cerrahi olarak yerleştirilmiş şantlar, spontan şantlar, hepatik ven trombozu, portal ven trombozu, primer hepatoselüler karsinom olarak sıralanabilir.

PATOFİZYOLOJİ: Hepatik ensefalopati, kronik karaciğer hastalığının önemli bir komplikasyonudur. Altta yatan mekanizma yeterince anlaşılamamıştır; bununla birlikte hepatik ensefalopatinin patogenezi amonyak dahil olmak üzere karaciğer tarafından elimine edilen nörotoksinlerin birikmesine dayanmaktadır. Amonyak, hepatik ensefalopatiyi presipite eden en iyi karakterize edilmiş nörotoksindir. Gastrointestinal sistem, sistemik dolaşımın birincil amonyak kaynağıdır. Enterositler ve kolon mikroflorası amonyak üretiminde önemli bir rol oynamaktadır. Sağlam karaciğer, portal ven amonyağının neredeyse tamamını temizler; amonyağı üre veya glutamine dönüştürür ve sistemik dolaşıma girmesini önler. İlerlemiş karaciğer hastalığında kan amonyak seviyelerindeki artış, bozulmuş karaciğer fonksiyonunun ve karaciğer çevresinde kanın şantının sonucudur. Bu hastalarda sık görülen bir durum olan kas kaybı da kasın ekstrahepatik amonyak uzaklaştırılması için önemli bir bölge olması nedeniyle katkıda bulunabilir. Aşırı miktardaki amonyak kan-beyin bariyerini geçebilir, daha sonra astrositler tarafından alınıp me-

tabolize edilir. Bu durum astrositlerde ozmotik basınç artışına yol açarak hücre şişmesine neden olur. Astrosit şişmesi, oksidatif stresi indükler. Sonuç olarak, serebral ödem, kafa içi basınç artışı meydana gelir.

Hepatik ensefalopatideki bilişsel ve motor değişiklikler, nöronal ağ ve iletide değişmiş nörotransmisyonun sonucudur. Ayrıca, hepatik ensefalopatinin şiddetlenmesinde enflamasyonun rolünü gösteren güçlü kanıtlar vardır.

KLİNİK BULGULAR: Birçok hepatik ensefalopati hastasında kronik karaciğer hastalığı vardır; bu hastalarda kas kaybı, sarılık, asit, spider telenjiektaziler, palmar eritem, ödem ve fetor hepatikus gibi bulgular zaten mevcuttur. Bunların birçoğu daha önce sağlıklı olan akut karaciğer yetmezliği hastalarında genellikle görülmez.

Hepatik ensefalopati, bilişsel eksiklikler ve bozulmuş nöromüsküler fonksiyon ile karakterize edilir. Minimal hepatik ensefalopatisi olan hastalarda, genellikle patolojik fizik muayene bulgusu olmayan ve yalnızca psikomotor veya elektrofizyolojik testlerle saptanabilen hafif bilişsel eksiklikler vardır. Aşikar hepatik ensefalopatisi olan hastalarda ise psikomotor test kullanılmadan klinik olarak tespit edilebilen belirti ve semptomlar vardır. Uyku düzenindeki bozukluklar, hepatik ensefalopatinin sıklıkla ilk belirtisidir. Hastalarda dikkat-tepki süresi ve kısa süreli bellekte bozulmalar görülebilir. Şiddetli hepatik ensefalopatisi olan hastalar hepatik komaya ilerleyebilir. Hepatik ensefalopati ilerledikçe, dezoryantasyon, uygunsuz davranış, somnolans, konfüzyon ve bilinç kaybı gelişebilir. Aşikar hepatik ensefalopatili hastalarda bradikinezi, asteriksis, hiperaktif derin tendon refleksleri, nistagmus, geçici deserebral duruş ve koma saptanabilir.

Hepatik ensefalopati, West Haven kriterleriyle belirti ve bulguların ciddiyetine bağlı olarak evrelendirilmiştir (Tablo_1).

LABORATUVAR: Hepatik ensefalopatili hastalarda amonyak konsantrasyonları sıklıkla yükselir; ancak tanı koymak için yüksek serum amonyak konsantrasyonu gerekli değildir ve hepatik ensefalopati için spesifik değildir. Ayrıca, amonyak seviyeleri birçok karaciğer dışı sebeple de yükselebilir. Amonyak yüksekliğinin ayırıcı tanısında düşünülecek durumlar; gastrointestinal sistem kanaması, böbrek hastalığı, idrar yolu enfeksiyonları, parenteral beslenme, şok, ağır egzersiz, sigara, yüksek doz kemoterapiden sonra, bazı ilaçlar (valproik asit, barbitüratlar, narkotik ilaçlar, diüretik, alkol), salisilat zehirlenmesi olarak sıralanabilir.

Mental durum değişikliklerinin diğer nedenlerini (Tablo_2) dışlamak ve hepatik ensefalopatiyi presipite edecek durumları araştırmak için diğer laboratuvar testleri yapılmalıdır. Amonyak ölçüm doğruluğu birçok faktörden (örn. eli yumruk yapma, turnike kullanma ve kan örneğinin buza koyulup koyulmadığı gibi) etkilenebilir.

TANI: Özellikle gizli hepatik ensefalopati tanısı zordur. Aşikar hepatik ensefalopati tanısı nispeten basittir ve genellikle bir dışlama tanısıdır. Hepatik ensefalopatiyi karakterize eden durumları saptamak için hastanın öyküsü alınmalı ve fizik muayene yapılmalıdır; böylece hepatik ensefalopatiyi karakterize eden bilişsel ve nöromüsküler bozukluklar saptanabilir. Mental durum değişikliklerinin diğer nedenlerinin dışlanması gerekir (Tablo_2). Metabolik anormallikleri ekarte etmek için serum laboratuvar testleri yapılmalıdır. Klinik bulgular ve öykü hasta için santral sinir sistemi patolojisi düşündürüyorsa beyin tomografisi taraması yapılmalıdır. Hepatik ensefalopatinin olası tetikleyici nedenleri için değerlendirme yapılmalıdır.

Minimal veya grade 1 ensefalopati düşünülen fakat tanısı net olmayan hastalarda psikometrik ve elektrofizyolojik testler yardımcı olabilir. Grade 3-4 hepatik ensefalopatisi olan hastalarda Glasgow Koma Skalası nörolojik bozukluğun ciddiyetini sınıflandırmak için faydalı olabilir.

Psikometrik Testler: Minimal hepatik ensefalopati tanısında yardımcı olurlar. Psikometrik testlerin kullanımı sınırlıdır çünkü birçoğu hantal ve zaman alıcıdır, tekrar tekrar uygulandıklarında öğrenme etkisi ile güvenilirlikleri azalır.

Elektrofizyolojik Testler: Minimal hepatik ensefalopatiyi saptamaya yönelik elektrofizyolojik testler EEG izleme, uyarılmış potansiyeller ve kritik kırpışma frekansı testini içerir. Ancak bu testlerin hiçbiri yaygın olarak kullanılmamaktadır.

Radyolojik Görüntüleme: Radyolojik görüntüleme öncelikle mental durum değişikliklerinin diğer nedenlerini dışlamak için kullanılır. Örneğin klinik bulgular hastada travmadan kaynaklanan subdural hematom düşündürüyorsa

kontrastsız beyin tomografi taraması yaparız. Beyin tomografi taraması ayrıca, hepatik ensefalopati tanısıyla ilgili olabilen beyin ödemini saptayabilir.

AYIRICI TANI: Mental durum değişiklikleri ile başvuran hastaların ayırıcı tanısı geniştir (Tablo-2).

İlaçlar ve toksinler	Enfeksiyon	Metabolik bozukluklar	SSS bozuklukları	Sistemik organ yetmezliği	Fiziksel bozukluklar
Sedatif ilaçlar	Sepsis	Elektrolit bozukluğu	SSS enfeksiyonları	Kalp yetmezliği	Yanık
Opioid	Sistemik enfeksiyon	Endokrin bozukluğu	Epileptik nöbet	Karaciğer yetmezliği (akut, kronik)	Elektrik yaralanması
Antipsikotik		Hiperkarbi	Kafa travması	Böbrek yetmezliği (akut, kronik)	Yüksek ateş
Lityum		Hiperglisemi hipoglisemi	Hipertansif ensefalopati		Hipotermi
CO, siyanür		Wilson hastalığı			
Etilen glikol					

AŞİKAR HEPATİK ENSEFALOPATİLİ HASTANIN YÖNETİMİ: Tedavi, predispozan koşulların düzeltilmesini ve amonyak düzeylerinin düşürülmesini içerir. Diyet proteininin kısıtlanması hastaların çoğu için önerilmez. Tedavi, hastanın hepatik ensefalopatisinin ciddiyetine bağlı olarak değişecektir. Hepatik ensefalopatinin klinik belirtilerinin yokluğunda yüksek serum amonyak seviyesi tedavi için bir gösterge değildir.

Gizli hepatik ensefalopatisi olan hastalar ayaktan tedavi edilebilir. Grade 3-4 hepatik ensefalopatisi olan hastalar sıklıkla yoğun bakım ünitesine yatırılırlar. Hava yolunun korunması için bu hastaların entübe edilmesi düşünülmelidir.

Hepatik ensefalopatili hastalarda dehidratasyon ve elektrolit anormalliklerinden (örneğin hipokalemi) kaçınılmalıdır. Hepatik ensefalopatili hastalarda yeterli hidrasyon sağlanmalıdır. Oryantasyonu bozuk olan hastalarda düşmeyi önleyici tedbirler alınmalıdır.

Laktuloz ve Laktitol: Laktuloz ve laktilol, aşikar hepatik ensefalopati tedavisinin temel dayanağı olan sentetik disakkaritlerdir. Hepatik ensefalopatili hastaların yaklaşık %70-80'i laktuloz tedavisinden fayda görür. Günde 2-3 yumuşak dışkı elde etmek için ilaç dozu titre edilmelidir. Tedavi genellikle iyi tolere edilir ve başlıca yan etkileri karın ağrısı, ishal ve gazdır.

Laktuloz veya laktilol gastrointestinal sistemden emilemeyen disakkaritlerdir. Kolonda, laktuloz ve laktitol bakteri florası tarafından katabolize edilir ve kolon pH'sı 5.0 civarına düşer; kolon asidifikasyonu ile birlikte amonyağın emilimi engellenir ve atılımı artar. Ayrıca; dışkı hacmindeki artışa bağlı olarak artan fekal nitrojen atımı, kolonik floranın modifikasyonu gibi etkilerle amonyak düşüşüne katkıda bulunur [2].

Oral Antibiyotikler: Emilmeyen antibiyotikler akut tedavide etkilidir. En sık rifaksimin kullanılır. Rifaksimin ile ilgili bir meta-analizde, hepatik ensefalopati varlığında rifaksiminin emilmeyen disakkaritlere benzer etkinlikte olduğu saptanmıştır [3]. Yapılan bir çalışmada , aşikar hepatik ensefalopatisi olan hastalarda rifaksimin ve laktuloz kombinasyonu tek başına laktuloz ile karşılaştırıldı. Rifaksimin ve laktuloz alan hastaların hepatik ensefalopatilerinde daha yüksek tam düzelme ve daha düşük ölüm oranı olduğu saptandı [4].

Neomisin, hepatik ensefalopatiyi tedavi etmek için uzun yıllar kullanıldı, ancak çalışmalara göre etkinliği ile ilgili soru işaretleri mevcuttur; ototoksisite ve nefrotoksisite ciddi yan etkilerindendir. Kullanılabilecek diğer antibiyotikler arasında vankomisin ve metronidazol bulunur. Vankomisin kullanımı vanko rezistan bakterilerin (VRE) kolonizasyonu ve nefrotoksisite riski nedeniyle kullanımı yaygın değildir [5]. Metronidazol ile yapılan çalışmalarda nörotoksisite nedeniyle kullanımının sınırlı olduğu belirtilmiştir [6].

L-ornitin-L-aspartat (LOLA): L-ornitin-L-aspartat, amonyağın glutamine metabolizmasını artırarak plazma amon-

yak konsantrasyonlarını düşürür. Bir meta-analizde, LOLA alan aşikar hepatik ensefalopatili hastaların, plasebo alanlara göre daha yüksek iyileşme olasılığının olduğu belirtilmiştir [7].

Dallı Zincirli Amino Asitler: Karaciğer yetmezliğinin sonucu gelişen plazma aromatik amino asitlerinin dallı zincirli amino asitlere oranındaki artışın ensefalopatiye katkıda bulunabileceği öne sürülmüştür. Bir meta-analizde dallı zincirli amino asit infüzyon tedavisinin aşikar hepatik ensefalopati kliniğini iyileştirdiği, ancak mortalite üzerinde etkisi olmadığı belirtilmiştir [8].

Kolon Florasının Modifikasyonu (Prebiyotikler ve Probiyotikler): Probiyotikler, sindirim sistemi için faydalı mikroorganizma formülasyonlarıdır. Prebiyotikler ise, bu mikroorganizmaların büyümesini destekleyen maddeler olarak isimlendirilir. Yapılan bir çalışmada; sirozlu hastalarda minimal hepatik ensefalopati tedavisinde probiyotik veya prebiyotiklerle tedavinin laktuloza alternatif olabileceği belirtilmiştir [9]. Bu tedavi yaklaşımına dair çalışmalar devam etmektedir.

Polietilen Glikol (PEG): Polietilen glikol solüsyonu, dışkıda amonyak atılımını artırarak etki eder ve hepatik ensefalopatiyi tedavi etmeye çalışır. Hepatik ensefalopatisi olan sirozlu hastalarda polietilen glikol solüsyonu ve laktuloz tedavilerini karşılaştıran bir çalışmada polietilen glikolün, hepatik ensefalopati kliniğinde laktulozdan daha hızlı düzelme sağladığı saptandı [10]. Bu tedavi yaklaşımına dair çalışmalar devam etmektedir.

Akarboz: Karbonhidratları monosakkaritlere dönüştüren üst gastrointestinal enzimleri (alfa-glukosidazlar) inhibe eder. Akarboz merkaptanlar, benzodiazepin benzeri maddeler ve amonyak üreten proteolitik florayı azaltır, ayrıca intestinal sakarolitik bakteri florasının prolifere olmasını destekler; bu durum hepatik ensefalopati kliniğini düzeltebilir. Akarbozun grade 1-2 hepatik ensefalopatisi ve tip 2 diyabeti olan siroz hastalarında hepatik ensefalopati kliniğine faydalı olduğu değerlendirildi [11]. Hepatik ensefalopati kliniğinde akarboz tedavisinin etkinliğine yönelik çalışmalar devam etmektedir.

Ekstrakorporeal Albümin Diyalizi (MARS: Molekül abzorbe edici resirkülasyon sistemi): Grade 3-4 hepatik ensefalopatisi olan hastalarda yapılan 2 randomize-kontrollü klinik çalışmada ekstrakorporeal albümin diyalizi, hepatik ensefalopati şiddetinde azalma ile ilişkilendirildi, ancak mortalite süresinde iyileşme olmadığı belirtilmiştir [12,13]. Rutin hepatik ensefalopati tedavisinde henüz yeri yoktur.

Hepatik Ensefalopatinin Akut Tedavisi: Hepatik ensefalopati tedavisinde ilk basamak; hastalığı presipite eden nedenlerin belirlenmesi ve düzeltilmesidir. Hepatik ensefalopati tedavisinde ikinci basamak; farmakolojik tedaviyle kan amonyak konsantrasyonlarını düşürmektir. Hipokalemi renal amonyak üretimini arttırır, bu sebeple hipokaleminin düzeltilmesi gerekir.

Akut hepatik ensefalopatide ilaç tedavisinin laktuloz veya laktilol ile başlatılması öneriliyor. Bu ilaçlar gastrointestinal sistemden amonyağın emiliminin azalmasına yol açarlar. Oral laktuloz dozu günde 2-4 kez 30-45 mL (20-30 gram) olarak düzenlenir. Laktitol dozu ise yaklaşık 30-60 gramdır, yine günde 2-4 kez verilebilir. Her iki ilaç içinde doz günde 2-3 yumuşak dışkılama olacak şekilde ayarlanmalıdır. Hasta oral alamıyorsa laktuloz veya laktitol lavmanları verilebilir. Lavmanla kolon temizliği amonyağın uzaklaştırılması için etkili bir yöntemdir. Randomize bir çalışmada laktuloz veya laktitol lavmanlarının, suyla yapılan lavmandan daha etkili olduğu saptanmıştır [14]. Bu sonuç etkin mekanizmanın bağırsak temizliğinden çok kolon asidifikasyonunun olduğunu düşündürmektedir. Amonyak metabolizmasını uyaran L-ornitin-L-aspartat, hepatik ensefalopati tedavisi için bir alternatiftir.

48 saat içinde mental durumu düzelmeyen veya laktuloz alamayan hastalara rifaksimin tedavisi öneriliyor. Rifaksimin dozu, oral olarak günde 3 kez 400 mg veya günde 2 kez oral 550 mg'dır. Genellikle antibiyotikler, emilemeyen disakkarit tedavisine eklenerek verilir.

Referanslar

1- Vilstrup, H., Amodio, P., Bajaj, J., Cordoba, J., Ferenci, P., Mullen, K. D., ... & Wong, P. (2014). Hepatic encephalopathy in chronic liver disease: 2014 practice guideline by AASLD and EASL. *Hepatology*, *60*(2), 715-35.

2- Riggio, O., Varriale, M., Testore, G. P., Di Rosa, R., Di Rosa, E., Merli, M., ... & Capocaccia, L. (1990). Effect of lactitol and lactulose administration on the fecal flora in cirrhotic patients. *Journal of clinical gastroenterology*, *12*(4), 433-436.

3- Riggio, O., Varriale, M., Testore, G. P., Di Rosa, R., Di Rosa, E., Merli, M., ... & Capocaccia, L. (1990). Effect of lactitol and lactulose administration on the fecal flora in cirrhotic patients. *Journal of clinical gastroenterology*, *12*(4), 433-436.

4- Sharma, B. C., Sharma, P., Lunia, M. K., Srivastava, S., Goyal, R., & Sarin, S. K. (2013). A randomized, double-blind, controlled trial comparing rifaximin plus lactulose with lactulose alone in treatment of overt hepatic encephalopathy. *Official journal of the American College of Gastroenterology| ACG*, *108*(9), 1458-1463.

5- Leise, M. D., Poterucha, J. J., Kamath, P. S., & Kim, W. R. (2014, February). Management of hepatic encephalopathy in the hospital. In *Mayo Clinic Proceedings* (Vol. 89, No. 2, pp. 241-253). Elsevier.

6- Patidar, K. R., & Bajaj, J. S. (2013). Antibiotics for the treatment of hepatic encephalopathy. *Metabolic brain disease*, *28*(2), 307-312.

7- Zhu, G. Q., Shi, K. Q., Huang, S., Wang, L. R., Lin, Y. Q., Huang, G. Q., ... & Zheng, M. H. (2015). Systematic review with network meta-analysis: the comparative effectiveness and safety of interventions in patients with overt hepatic encephalopathy. *Alimentary pharmacology & therapeutics*, *41*(7), 624-635.

8- Gluud, L. L., Dam, G., Les, I., Cordoba, J., Marchesini, G., Borre, M., ... & Vilstrup, H. (2015). Branched-chain amino acids for people with hepatic encephalopathy. *Cochrane Database of Systematic Reviews*, (9).

9- Liu, Q., Duan, Z. P., Ha, D. K., Bengmark, S., Kurtovic, J., & Riordan, S. M. (2004). Synbiotic modulation of gut flora: effect on minimal hepatic encephalopathy in patients with cirrhosis. *Hepatology*, *39*(5), 1441-1449.

10- Rahimi, R. S., Singal, A. G., Cuthbert, J. A., & Rockey, D. C. (2014). Lactulose vs polyethylene glycol 3350-electrolyte solution for treatment of overt hepatic encephalopathy: the HELP randomized clinical trial. *JAMA internal medicine*, *174*(11), 1727-1733.

11- Gentile, S., Guarino, G., Romano, M., Alagia, I. A., Fierro, M., Annunziata, S., ... & Torella, R. (2005). A randomized controlled trial of acarbose in hepatic encephalopathy. *Clinical Gastroenterology and Hepatology*, *3*(2), 184-191.

12- Hassanein, T. I., Tofteng, F., Brown Jr, R. S., McGuire, B., Lynch, P., Mehta, R., ... & Blei, A. T. (2007). Randomized controlled study of extracorporeal albumin dialysis for hepatic encephalopathy in advanced cirrhosis. *Hepatology*, *46*(6), 1853-1862.

13- Bañares, R., Nevens, F., Larsen, F. S., Jalan, R., Albillos, A., Dollinger, M., ... & RELIEF Study Group. (2013). Extracorporeal albumin dialysis with the molecular adsorbent recirculating system in acute-on-chronic liver failure: the RELIEF trial. *Hepatology*, *57*(3), 1153-1162.

14- Uribe, M., Campollo, O., Vargas, F., Ravelli, G. P., Mundo, F., Zapata, L., ... & Garcia-Ramos, G. (1987). Acidifying enemas (lactitol and lactose) vs. nonacidifying enemas (tap water) to treat acute portal-systemic encephalopathy: a double-blind, randomized clinical trial. *Hepatology*, *7*(4), 639-643.

Which Is More Urgent? MI is it? SVD?

Yeşim İşler

Introduction

Cerebrovascular diseases are the third most common cause of death (1). The most common cause is atherosclerosis (2). The most common causes of cerebrovascular diseases seen at young ages are cardioembolism, arterial dissection and atherosclerosis. Cardiac causes are responsible for 40% of strokes in young age (3). Cardiac arrhythmias and electrocardiographic changes are frequently seen in cerebrovascular diseases, which are associated with increased morbidity and mortality (4). Acute ischemic strokes in certain areas of the brain may impair the central autonomic control of the heart, increasing the risk of cardiac arrhythmias, ECG abnormalities, myocardial damage, and sometimes sudden death (5). The incidence of ECG abnormality after acute ischemic CVO has been reported to be between 45% and 90% (6-8). Excessive ketcholamine release after acute ischemic CVO triggers cardiac arrhythmias, hypertensive attacks and myocardial infarction. Studies have shown that cardiac-related mortality develops in 2-6% of patients in the first trimester after acute ischemic CVO (9, 10).

Case

A 54-year-old male patient was brought to our emergency clinic by 112 with the complaint of speech disorder that started about an hour ago. When the patient came, BP was: 163/117 mmHg, Fever: 36.20C, Nb: 100 beats/min, SatO2: 98% BG: 80 mg/dl. He has a history of smoking 40 packs/year, hypertension, surgery due to gastric perforation a week ago, coronary angiography and stent 7 times. The general condition of the patient was good, conscious, oriented, cooperative, IR+/+, facial asymmetry and no deficits in the extremities. He stated that his speech was normally faster. He was also trying to remember some words, having trouble saying them. No pathology was detected in the other system examination. There was ST elevation in V1-V6 on EKG. The patient's brain tomography and diffusion magnetic resonance were taken. No pathological appearance was observed in the tomography. Acute infarction was detected in the left medial cerebral artery in diffusion magnetic resonance imaging. At the same time, the patient's troponin value came to 24 thousand. Transthoracic echocardiography was performed to the patient, who stated that he was young, had experienced a similar situation before, and recovered spontaneously. The patient was admitted to the cardiology department for angiography and 50-60% stenosis was detected in the proximal coronary. After medical treatment recommendation, the patient was taken over by neurology with the diagnosis of cerebrovascular disease.

Conclusion

It may accompany a serious diagnosis such as myocardial infarction simultaneously in cerebrovascular disease. Appropriate cardiac monitoring and effective management of arrhythmias in cerebrovascular disease are important to prevent cardiac morbidity and mortality. It should be remembered that the most common cause of the etiology of cerebrovascular disease at a young age is cardiac pathologies and this information should not be ignored in the evaluation.

Keywords: Emergency, Cerebrovascular disease, Myocardial infarction,

Referanslar

1. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJ: Global and regional burden of disease and risk factors, 2001: systematic analysis of population health data. Lancet 2006;367:1747- 1757.

2. Kumral E: İnme Epidemyolojisi, Serebrovasküler hastalıklar, Balkan S (Ed), 2. Baskı, Güneş Kitabevi, 2005: 39-45.

3. Utku U, Çelik Y. Strokta Etyoloji, Sınıflandırma ve Risk Faktörleri. Serebrovasküler Hastalıklar, Edt. Balkan S. Güneş Kitapevi, Antalya, 2005. 57-71.

4.Fernández-Menéndez S, García-Santiago R, Vega-Primo A, et al. Cardiac arrhythmias in stroke unit patients. Evaluation of the cardiac monitoring data. Neurología. 2016; 31: 289-95.

5. Ruthirago D, Julayanont P, Tantrachoti P, Kim J, Nugent K. Cardiac Arrhythmias and Abnormal Electrocardiograms After Acute Stroke. Am J Med Sci. 2016; 351: 112-8

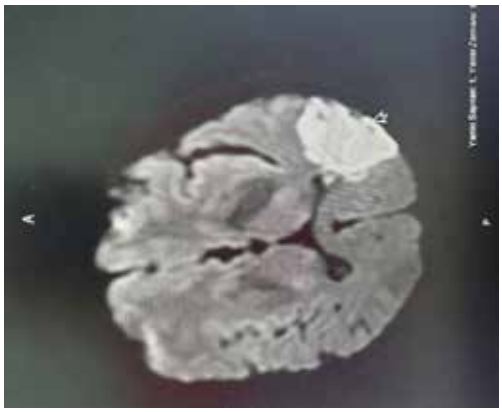
6. Prosser J, Mac Gregor L, Lees KR, et al. Predictors of early cardiac morbidity and mortality after ischemic stroke. Stroke. 2007; 38: 2295-302.

7. Pasquini M, Laurent C, Kroumova M. Insular infarcts and electrocardiographic changes at admission: results of the prognostic of insular cerebral infarcts study (PRINCESS). J Neurol. 2006; 253: 618-24.

8. Christensen H, Fogh Christensen A, Boysen G. Abnormalities on ECG and telemetry predict stroke outcome at 3 months. J Neurol Sci. 2005; 234: 99-103.

9. Silver FL, Norris JW, Lewis AJ, Hachinski VC. Early mortality following stroke: a prospective review. Stroke. 1984;15: 492–6.

10. Adams RJ, Chimowitz MI, Alpert JS, et al. Coronary risk evaluation in patients with transient ischemic attack and ischemic stroke: a scientific statement for healthcare professionals from the Stroke Council and the Council on Clinical Cardiology of the American Heart Association/Am Stroke Association. Stroke. 2003; 34: 2310 –22.



ACİL TIP UYGULAMALARINDA AYDINLATILMIŞ ONAM

Dr. Öğr. Üyesi Arif Hüdai KÖKEN

Kırşehir Ahi Evran Üniversitesi Tıp Fakültesi Tıp Tarihi ve Etik Anabilim Dalı

Antik çağlardan bu yana tıbbın temel değeri hastaların iyilik halinin korunması olmuştur. Hekimler hastalarının iyilik halini güvence altına almak için tıbbi anlamda en iyiyi yapmak istemektedirler. Bunun yanında hastayı bilgilendirmek ve tıbbi karar sürecinin bir parçası haline getirmek günümüze kadar yaygınlaşan ve hekimlerden beklenen bir uygulama olmuştur. Buradan hareketle aydınlatılmış onamın temelini oluşturan hastaların refahının ve özerkliğinin korunması iki temel ahlaki değer olarak günümüzde kabul edilmektedir.

Aydınlatılmış onam, tıbbi uygulamalarda müdahalenin amacı, niteliği, sonuçları ve risklerine dair bilgiler içeren ve aynı zamanda hastanın tedavi kabulünü ya da reddini içeren bir süreçtir. Biyomedikal etiğin ilkelerden özerkliğe saygı ilkesi tıbbi uygulamalarda önemini arttırmaya başladığından bu yana, babacıl hekim tutumları zaman içerisinde değişikliğe uğramış, hastalar kendi sağlıklarını ilgilendiren kararları verebilmesi için hekimler tarafında kapsamlı bir şekilde bilgilendirilmeye başlanmıştır. Acil tıp uygulamalarında aydınlatılmış onam gerek etik gerek yasal açıdan önemli bir köşe taşıdır, hekim hasta arasındaki güven ilişkisinin temelidir, hastanın sağlığını güvence altına almaktır, hasta hakkıdır ve hastanın kendisiyle ilgili vereceği karara saygıdır.

Acil tıp pratiğinde görülmektedir ki hastalar her zaman kendi tıbbi kararlarını verememekte, bazan da hekimler yaşam kurtarıcı tedaviye başlamak için zaman baskısı altında olmaktadır. Böyle durumlarda hasta adına tedavi kararı verecek kişinin kim olacağı etik açıdan tartışmaya konu olmaktadır. Aydınlatılmış onam süreci tüm klinik branşlarda olduğu gibi acil tıp uygulamalarında da hastanın özerk seçim yapmasına imkân tanımaktadır. Ancak acil tıbbi bir nedenden dolayı karar verme kapasitesi yeterli olmayan hastalar özelinde düşünüldüğünde bir akraba veya hasta yakını tedavi kararı için sorumluluğu genel olarak üstlenmektedir. Fakat bazan da hastalar kendileriyle ilgili kararları acil hekimlerinin vermesini isteyebilmektedirler. Bu nedenle tıbbi tedavi sürecinin önemli bir parçası olan aydınlatılmış onamın temellerini kavramak, acil tıp uygulamaları özelinde aydınlatılmış onamın özelliklerini bilmek acil tıp hekimlerine yol gösterici olacaktır.

Bu sözel bildiride acil tıp uygulamalarında aydınlatılmış onam öncelikle biyomedikal etik açıdan kuramsal olarak ele alınarak aydınlatılmış onamın temel öğeleri açıklanacaktır. Daha sonra karar verme kapasitesine göre erişkin hasta profilleri ve bilinç düzeyleri üzerinde tartışma yapılarak acil ve acil olmayan hastaları ilgilendiren aydınlatılmış onam türleri açıklanacaktır. Son olarak acil tıp pratiği özelinde bilginin açıklanması, aydınlatılmış onamın istisnaları ve hastanın ya da yakınlarının tedavi reddi tartışılacaktır. Ulusal/uluslararası etik/hukuki belgeler incelenerek ilgili maddeler temelinde yapılacak olan tüm bu tartışmalar genişletilecektir. Böylece acil tıp uygulamalarında aydınlatılmış onam konusunda klinik uygulamalara yol gösterecek bir bakış açısı sağlanacaktır.

INFORMED CONSENT IN EMERGENCY MEDICINE PRACTICES

Asst. Prof. Arif Hüdai KÖKEN

Kırşehir Ahi Evran University Faculty Of Medicine, History Of Medicine And Ethics Department

The main value of medicine since ancient times has been the preservation of the well-being of the patients. Physicians want to do the best in medically to ensure the well-being of their patients. In addition, informing the patients and making them a part of the medical decision process has become a common practice and expected from physicians. From this point of view, protecting the well-being and autonomy of patients, which form the basis of informed consent, are accepted as two basic moral values today.

Informed consent is a process that includes information about the purpose, nature, consequences and risks of intervention in medical practice, as well as the patient's acceptance or rejection of treatment. Since the principle of respect for autonomy, one of the principles of biomedical ethics, began to increase its importance in medical practices, paternalist physician attitudes have changed over time, and patients have begun to be comprehensively informed by physicians so that they can make decisions concerning their own health. Informed consent is an important cornerstone both ethically and legally in emergency medicine practices, it is the basis of the relationship of trust between the physician and the patient, it is to ensure the health of the patient, the patient's right and respect for the decision of the patient.

In emergency medicine practice, it is seen that patients are not always able to make their own medical decisions, and sometimes physicians are under time pressure to start life-saving treatment. In such cases, who will make the treatment decision on behalf of the patient become the subject of ethical discussion. Informed consent process allows the patient to make autonomous choices in emergency medicine practices, as in all clinical branches. However, when it is considered for patients whose decision-making capacity is not sufficient due to an emergency medical reason, a relative of the patient generally assumes the responsibility for the treatment decision. However, sometimes patients may want their emergency physicians to make decisions about them. For this reason, understanding the basics of informed consent, which is an important part of the medical treatment process, and knowing the features of informed consent in particular, will guide emergency physicians.

In this oral presentation, informed consent in emergency medicine practices will be discussed primarily in terms of biomedical ethics and the basic elements of informed consent will be explained. Then, according to the decision-making capacity, adult patient profiles and consciousness levels will be discussed and the types of informed consent that concern emergency and non-emergency patients will be explained. Finally, disclosure of information in emergency medicine practice, exceptions to informed consent, and treatment refusal of the patient or his relatives will be discussed. All these discussions on the basis of relevant articles will be expanded by examining national/international ethical/legal documents. Thus, a perspective will be provided to guide clinical practices on informed consent in emergency medicine practices.

Yaşlı hastanın bilinç değerlendirmesi, Hastanız Hep Böyle miydi?

Dr. Dilay Satılmış

Sağlık Bilimleri Üniversitesi Sultan 2 Abdülhamid Han EAH, Acil Tıp Kliniği

Yaşlanma; anne karnından ölüme kadar olan sürecte biyolojik, fizyolojik, ve psikolojik açıdan değişime uğrayarak yaşamı etkileyen geri dönülmez süreç, fiziksel ve bilişsel fonksiyonlarda gerileme, üretkenliğin, gelir düzeyinin,eş ve yakın ilişkinin ve statünün azalması gibi bir kayıplar dönemi olarak tanımlanmaktadır.

Dünya Sağlık Örgütü, yaşlılık için kronolojik bir tanımlamayı tercih etmektedir.

- ✓ **65-74 yaş arasını G**enç yaşlılık,
- ✓ **75-84 yaş arasını O**rta yaşlılık
- ✓ **85 ve üstünü İ**leri yaşlılık olarak tanımlamıştır.

Epidemiyoloji

WHO verilerine göre dünyada 60 yaş ve üzeri nüfusun diğer yaş aralığından daha fazla artış göstermekte olduğu,2030 yılında, dünyadaki her 6 kişiden 1'i 60 yaş ve üzerinde olacağı,2050 yılında, 60 yaş ve üzeri nüfusun iki katına çıkacağı (2,1 milyar), 80 yaş ve üzeri kişi sayısının 2050 yılında 426 milyona ulaşması beklenmektedir. **Ülkeler arası yaşlı nüfus oranlarının sıralamasında ise** en yüksek yaşlı nüfus oranına sahip ülkenin Japonya olduğu görülmektedir (%28,7) (Birleşmiş Milletler Dünya Nüfus Verileri). Bu sıralamada Türkiye'nin yaşlı nüfus oranının %9,7 ile dünya yaşlı nüfus ortalamasının hemen üzerinde olduğu da görülmektedir. TUIK verilerine göre de ; Türkiye'de nüfusun giderek yaşlandığı ve yaşlı nüfus oranının 2039'da % 14'e, 2050 yılında %20,8, 2075 yılında ise %27,7'e ulaşacağı öngörülmektedir.

Neden Yaşlı Hastada Anamnez Almada Zorlanıyoruz?

- ✓ Kronik hastalıkların mevcudiyeti
- ✓ Görme ve işitme zorlukları
- ✓ Kognitif fonksiyonda bozulma
- ✓ Fonksiyonel kapasitede azalma
- ✓ *Çoklu ilaç kullanımı*

Kognitif (Bilişsel) Değerlendirme

Kognitif fonksiyonlarda bozulma, yaşam kalitesini olumsuz etkilediği ve ciddi morbiditeye sebep olduğu için erken tarama önemlidir.

Atipik Klinik Durum Sebepleri;

Demans

Deliryum

Depresyon

Primer Psikotik Bozukluklar

DEMANS

Demans, bellek bozukluğuna ek olarak bilişsel fonksiyonların bir ya da daha fazlasında bozulma olmasıdır.Hasta-

nın sosyal ve iş yaşamı etkilenir**, h**asta değerlendirilmesinde , unutkanlığın süresi ve seyri, eşlik eden dil ve kişilik değişiklikleri, psikiyatrik semptomlar önemlidir.

Mental Durum Değerlendirilmesinde; Bilinç, hesaplama,konuşma,yürüme fonksiyonu,hafıza ve oryantasyon test edilmelidir. Demans ve diğer kognitif bozukluğu olan pek çok yaşlı hastada oryantasyonun normal olabileceği de unutulmamalıdır.

DELİRYUM

Deliryum etyolojisi multifaktöriyeldir ve predispoze ve presipite eden faktörlerin etkileşimi sonucu oluşur

Deliryum Klinik Subtipleri

Hiperaktif (%15) : Dezoryantasyon, ajitasyon, halüsinasyon

Antikolinerjikler

İlaç İntoksikasyonu

Çekilme sendromları

Hipoaktif (%19) : Letarji,Uyku hali, Hospitalizasyon süreleri daha uzun, bası yaraları daha çok görülüyor.

Mikst

DELİRYUM TANI KRİTERLERİ

- ✓ Bilinç değişikliği ile birlikte dikkat ve konsantrasyonda bozulma
- ✓ Demansla ilişkisiz kognitif fonksiyon bozukluğu veya algıda bozukluk
- ✓ Gün içinde dalgalanmalar gösteren seyir

Bilinç Durumu Değerlendirme Ölçekleri

Glaskow Koma Skalası (GKS) 'sı travma hastasında bilinç durumu değerlendirilmesi için kullanılan evrensel bir skorlama sistemidir.

GKS'nın uygulanabilirliği üzerinde yapılan çalışmalarda da ; Skorlamanın Sözel olarak genel bir fikir verdiği,Fakat;Subjektif bulgularla değerlendirilme yapılması,kaydeden kişiler arasında farklılıklar olması, skalanın prognoz takibinde yetersizlikleri olarak gösterilmiştir. Ve hekimin hastanın nörolojik durumunu değerlendirmesinde gecikmelere neden olduğu belirtilmiştir.

Non-travmatik yaşlı hastada kullanımı?

Modifiye Richmond Ajitasyon ve Sedasyon Skalası (RASS);

Uyarılmaya yanıt seviyesi ölçüm skalasıdır. **Acil serviste kullanımı uygun, Basit-Hızlı**, -5 (yanıtsız) ve +4 (saldırgan) arası bir skaladır.

- ➢ **Sıfır (0); uyanık**, sakin ve çevresinin farkında olan hastaya karşılık gelir.
- ➢ Sıfır değerinden farklı değerler **Deliryum** için belli duyarlılığa sahiptir.
- ➢ Modifiye RASS skoru -1'den küçük veya eşit ya da +1'den büyük ya da eşit durumunda deliryum tanısında etkindir (duyarlılık %84, özgüllük %88)
- ➢ -2'den küçük veya eşit ya da +2'den büyük ya da eşit durumunda özgüllük **%99'a yükselmektedir.**

Confusion Assessment Method-CAM (Konfüzyon değerlendirme metodu);

Deliryumun ayırt-edilmesinde Acil servislerde kullanılabilecek Basit bir test,Uygulanmasının 5 dakika sürmesi ve yatak başı uygulama kolaylığı avantajlarıdır. Sensitivitesi 94% ve spesifitesi 90-95 % 'dir.

Akut başlangıçlı, gün içinde dalgalanmalar gösteren seyir

Dikkat azalması (Söylenenleri aklında tutabiliyor mu? Dikkatini odaklayabiliyor mu?)

Organize düşünme yetisinde azalma (Anlamsız konuşmalar, mantıksız düşünceler, ilgisiz konulara atlamalar)

Bilinç değişikliği

**1 ve 2 olmalı ; + 3 veya 4 mevcut olmalı

Mini Mental Durum Değerlendirme (MMSE) Testi

Demans taraması için sık kullanılan tarama testidir.Oryantasyon, hafıza, dikkat, hesaplama, hatırlama, lisan, motor fonksiyon ve algılama, visiospasiyel yetenekleri test eder.MMSE Testi, 11 sorudan oluşur ve 30 puan üzerinden değerlendirilir.Tamamlanması 10 dakika sürer

- ✓ 24-30 puan arası normal,
- ✓ 18-23 puan arası hafif demans,
- ✓ 17 puan ve altı ciddi demansla uyumludur

MMSE Testinin, Yalancı negatif ve yalancı pozitif olduğu durumları bilmek gereklidir.

OTTAWA 3DY

MMSE testinin Acil Servislerde uygulanabilirliğinin yaklaşık 5-15 dakika sürme kısıtlılığı sebebiyle yapılan ve Bilişsel bozulma için basit bir tarama aracı olan Ottawa 3DY 'testinin MMSE ile karşılaştırılmalı olarak değerlendirildiği bir çalışmada da Ottowa 3DY hem daha etkin ve hem de uygulanabilir olduğu gösterilmiştir.

- ✓ Haftanın hangi günündeyiz?
- ✓ "Dünya" kelimesini tersten harf harf sayılması?
- ✓ Bulunduğumuz Günün tarihi nedir?
- ✓ Bulunduğumuz Yıl ?

Altı-Madde Eleme Testi (Six-Item Screener)

- ✓ Hastaya 3 kelime okunur ve tekrar etmeleri istenir; Fakat Bu maddelerin tekrarı puanlanmaz.
- ✓ Daha sonra puanlanan 3 zamansal soru sorulur (*hangi yıl, ay, haftanın hangi günü diye sorulur)
- ✓ 3 dakikalık dikkat dağınıklığı sonrası 3 kelimenin hatırlanması puanlanır.

➢ Hasta, 6 oryantasyon ve hafıza sorusundan; ≥2'sini yanlış cevaplarsa, olası bilişsel bozulma için tanısal çalışmalar planlanmalıdır.

Saat Çizme Testi

Demansın erken evrelerinde ilk bozulan testlerden biri olarak kabul edilmektedir. Hastadan saat çizmesi, içine sayıları yerleştirmesi ve söylenen zamanı işaretlemesi istenir.

6 puan üzerinden değerlendirilir.

4 puanın altı; bozulmuş kognitif fonksiyonla uyumludur.

Avantajları

Kısa ve çabuk uygulanması

Negatif prediktif değeri yüksek

Dezavantajları

Puanlamanın subjektif olması

Yalancı negatifliğinin yüksek olmasıdır.

NONKOGNİTİF TESTLER

Hastaların psikiyatrik ve davranışsal semptomlarının değerlendirilmesi için kullanılır.Non-kognitif testlerle ölçümde, hastalarda inkar etme ve görmezden gelme gibi durumlarla karşılaşılabileceği için hasta yakınıyla da görüşme önemlidir!!

NÖROPSİKYATRİK TESTLER

Kapsamlı geriatrik değerlendirmede, Nöropsikiyatrik değerlendirme önemli

Psikiyatrik bozukluk belirtileri;

- ✓ Özbakımda azalma,
- ✓ Ani başlayan konfüzyon,
- ✓ Kendine zarar verme
- ✓ Somatik yakınmalar
- ✓ Bakıcı tükenme sendromu
- ✓ Aile ve komşuların tekrarlayan şikayetleri

Geriatrik Depresyon Skalası

Yaşlı hastalarda depresyon taraması yapılması için geliştirilmiştir.Geriatrik depresyon skalası, kısa, hızlı ve kolay bir tarama testidir.5 puan ve üzeri depresyonla uyumlu, klinik ile birlikte değerlendirilmeli.Seong-Hi Park ve ark.'nın , Geriatrik Depresyon Ölçeğinin ve Cornell'in Demanslı hastalarda Depresyon Skalası 'nın yaşlı hastada depresyonu öngörücü geçerliliğini değerlendirdikleri 9 çalışmadan oluşan bir Metaanalizde; Her iki ölçeğin de yaşlı hastalarda depresyon taramasında kullanılabilecek yeterlilikte olduğu,CDD'nin, demansı olan yaşlı yetişkinlerde, GDS'nin ise demans tanısı olmayan yaşlı yetişkinlerde tanıda daha etkin olduğu gösterilmiştir. Sonuç olarak; acil serviste yaşlı hasta değerlendirilmesinde bilinç durumunda değişikliğe sebep olabilecek organik nedenlerin dışlanması ve bilişsel bozukluğun sebeplerinin araştırılması,ve ayırıcı tanıda kullanılan, özelikli hasta gruplarına göre de etkinliği kanıtlanmış Skalaların, Acil servislerde kullanımında tecrübe kazanılması önemlidir.

KRİTİK HASTADA DENGELİ SOLÜSYONLAR MI?

Uzm. Dr. Muhammed Furkan ÖZDEN

İstanbul Arnavutköy Devlet Hastanesi (Acil Tıp Uzmanı)

Günlük pratiğimizde acil servislerde, yataklı servislerde, tıp merkezlerinde ve yoğun bakım ünitelerinde sıkça kullanılan birçok solüsyon bulunmaktadır:

- %0.9'luk NaCl Solüsyonu: İzotonik dehidratasyonun tedavisinde kullanılır. Uzun süre verilirse hiperkloremi ve buna bağlı asidoz gelişir.
- %5'lik Dekstroz Solüsyonu: Hipertonik dehidratasyon hallerinde kullanılır.
- %3'lük ve %5'lik NaCl Solüsyonları: Hipotonik dehidratasyon hallerinde kullanılır.
- Dengeli Solüsyonlar: Vücut sıvılarının elektronik bileşimini taklit edecek şekilde hazırlanmış solüsyonlardır.
  - Ringer Solüsyonu (NaCl + KCl + $CaCl_2$)
  - Laktatlı Ringer Solüsyonu (NaCl + KCl + $CaCl_2$ + Na-Laktat)
  - Isolyte ve benzerleri (NaCl + KCl + $CaCl_2$ + $MgCl_2$ + Sodyum Asetat + Sodyum Sitrat)
- Dekstroz ve NaCl Solüsyonu: %5 Dekstroz ile %0.9'luk NaCl solüsyonunun karışımıdır. Elektrolit ve kalori vermek için kullanılır.
- Oral Rehidratasyon Sıvıları: Bebek ve çocuklarda akut diyareye bağlı dehidratasyon tedavisinde kullanılır (NaCl + $NaHCO_3$ + KCl + Glukoz)

A. İzotonik Soydum Klorür Solüsyonu: %0.9'luk derişimde NaCl, 154 mEq/L Na, 154 mEq/L Cl içerir. 1 litrelik sıvıda 9 gram kadar NaCl bulunur. İzoosmotik sıvı olarak kabul edilir ve pratikte kısaca 'salin' olarak isimlendirilir.

- ✓ Tıbbi pratikte en çok kullanılan sıvıdır.
- ✓ Volümü artırır, damar içinde kalır.
- ✓ Hafif hipertoniktir (308 mOsm/L)
- ✓ Sol ventrikülün kollabe olmasını önler.
- ✓ HCO_3 içermez, plazmaya oranla fazla klor içerir.
- ✓ Eklenen volümde tampon sistemi olmadığından asiditeyi artırır. (NaCl + H_2O -> HCl + NaOH)

B. Ringer Laktat Solüsyonu: Yanık hastalarında, volüm açığı ile birlikte olan asidoz durumlarında tercih edilir. Laktik asidoz riski bulunan karaciğer hastalıklarında, laktat metabolizma bozukluklarında, Addison hastalığında, hiperkalemide, akut böbrek yetmezliği tablolarında ve crush sendromunda kullanılması önerilmez. Laktatlı Ringer solüsyonu; 130 mEq/L Na, 109 mEq/L Cl, 28 mEq/L laktat, 4 mEq/L K^+ ve 3 mEq/L Ca^{+2} içerir. Hafif hipotonik bir sıvıdır.

- ✓ Plazma ozmolaritesine yakındır (273 mOsm/L)
- ✓ Laktat karaciğerde HCO_3'e metabolize edilir. Bu nedenle tampon sistemi bozulmaz.
- ✓ Yüksek klor içermez, asidemiye değil alkaloza yol açar.

C. İsolyte S Solüsyonu: 141 mEq/L Na, 98 mEq/L Cl, 5 mEq/L K^+ ve 27 mEq/L asetat içerir, glukoz içermez. Alkali

içeriği nedeniyle ishale bağlı dehidratasyon durumlarında tercih edilirken, şiddetli kusması olan hastalarda önerilmez.

D. İsolyte M Solüsyonu: 40 mEq/L Na, 40 mEq/L Cl, 35 mEq/L K^+ ve 20 mEq/L asetat ve 50 gr glukoz (1000 cc'de) içerir. Günlük minimum kalori ve elektrolit ihtiyacını karşılamak için tercih edilir. Potasyum ve fosfat kayıplarının karşılanmasında yararlıdır.

Tablo1: Yaygın kullanılan solüsyonlar, derişimleri ve içerikleri

Solüsyon	Tonisite	Na (mEq/L)	Cl (mEq/L)	Glukoz (1 L'de)
%5 Dekstroz	Hipotonik	-	-	50 gr
%0.9'luk NaCl	İzotonik	154	154	-
%3'lük NaCl	Hipertonik	513	513	-
%0.45'lik NaCl	Hipotonik	77	77	-
%5 Dekstroz + %0.45'lik NaCl	Hipertonik	77	77	50 gr
Ringer Laktat	İzotonik	130	109	-
%5 Dekstroz + Ringer Laktat	Hipertonik	130	109	50 gr
Plasmalyte	İzotonik	140	98	-

Literatürde %0.9'luk izotonik NaCl solüsyonu ile dengeli solüsyonları asidoz, akut böbrek hasarı, diyaliz ihtiyacı ve mortalite açısından kıyaslayan birçok randomize kontrollü çalışma mevcut. Bu çalışmalardan aşağıda kronolojik olarak belirtilen 5 tanesine değineceğiz:

- ✓ SPLIT çalışması (The *Journal* of the American Medical Association (*JAMA*) – 2015, Ekim)
- ✓ SMART çalışması (The New England Journal of Medicine (NEJM) – 2018, Mart)
- ✓ SALT-ED çalışması (NEJM – 2018, Mart)
- ✓ BaSICS çalışması (JAMA – 2021, Ağustos)
- ✓ PLUS çalışması (NEJM – 2022, Mart)

1. SPLIT Çalışması: Ekim 2015'te JAMA'da yayınlanmıştır. İzotonik solüsyonlar ve majör renal yan etkilerini araştırmayı hedefleyen bu çalışmaya Yoğun Bakım Ünitesinde (YBÜ) yatan 228 hasta dahil edilmiş. Bir gruba salin (%0.9'luk NaCl solüsyonu), diğer gruba Plasmalyte-A verilmiş. Çalışmanın birincil sonlanımı Akut Böbrek Yetmezliği (ABY) olarak belirlenmiş. İkincil sonlanımlar ise; diyaliz ihtiyacı ve mortalite imiş. Sonuç olarak salin verilen hasta grubu ile dengeli solüsyon verilen hasta grubu kıyaslandığında 90 günlük ABY gelişimi açısından anlamlı fark saptanmamış.

2. SMART Çalışması: Mart 2018'de NEJM'de yayınlanmıştır. İzotonik solüsyonlar ve majör renal yan etkilerini araştırmayı hedefleyen bu çalışmaya YBÜ'de yatan 15.802 yetişkin hasta dahil edilmiş (82 ay). Bir gruba salin, diğer gruba Ringer Laktat ve Plasmalyte-A verilmiş. Birincil sonlanım, ilk 30 gün içinde major renal olay olarak belirlenmiş. İkincil sonlanımlar ise; 30 ve 60 günde ölüm, mekanik ventilatörsüz geçen gün sayısı, vazopressörsüz geçen gün sayısı, diyaliz ihtiyacı, akut renal hasar görülmesi olarak belirlenmiş.

Birincil Sonlanımlar:

- Majör renal yan etki dengeli kristalloid alan hastalarda %14,3; salin alanlarda ise %15,4 görülmüş (odds oranı (OR) 0,91; %95 GA: 0,82 – 0,99, p=0,04).
- Altgrup analizlerinde de benzer sonuçlar tespit edilmiş. En belirgin fark yüksek miktarda salin verilenler

ile sepsis hastalarında görülmüş. Sepsis hastalarında 30 günlük mortalite dengeli solüsyonlarda %25,2 iken salin grubunda %29,4 olarak gözlenmiş (OR: 0,80; %95 GA: 0,67 – 0,97)

İkincil Sonlanımlar:

- Dengeli kristalloidlerde taburculuktan önce veya ilk 30 günde kaybedilen hasta oranı %10,3 (n=818) iken salin grubunda %11,1'miş (n=875; p=0.06)
- Yeni gelişen renal replasman ihtiyacı salin grubunda %2,9 (n=220), dengeli kristallodlerde ise %2,5 (n=189 p=0.08) olarak belirlenmiş.

Tartışma:

- Her ne kadar primer sonuçlarda (major renal yan etki) net fark %1,1 oranında (p=0.04) dengeli kristaloid grubunda olsa da bu az farkın sıvı tedavisi verilen yüksek miktarda hasta grubunu göz önüne alınca anlamlı olabileceği söyleniyor.
- Her yıl YBÜ'lerde 5 milyondan fazla hastaya sıvı veriliyor. Çalışmaya göre YBÜ'de salin yerine dengeli solüsyon tercih etmenin, her 94 hastadan 1'inde renal replasman tedavisi, kronikleşen renal disfonksiyon ve ölümü azaltabileceği söylenmiş.

3. SALT-ED Çalışması: Mart 2018'de NEJM'de yayınlanmıştır. İzotonik solüsyonlar ve majör renal yan etkilerini araştırmayı hedefleyen bu çalışmaya acil serviste yatan 13.347 yetişkin hasta dahil edilmiş (16 ay). Bir gruba salin, diğer gruba Ringer Laktat ve Plasmalyte-A verilmiş. Birincil sonlanım, taburculuktan sonra hastane yatışı gerekmeyen gün sayısı iken; ikincil sonlanımlar ise 30 gün içerisinde majör böbrek olayı ve hastanede ölüm olarak belirlenmiş.

- Birincil sonlanım açısından iki sıvı grubu arasında fark saptanmamış.
- İkincil sonlanımlara göre dengeli solüsyonlar ile daha az majör böbrek olayı görülmüş (%4,7'ye karşın %5,6, odds oranı 0,82; %95 GA: 0,70 – 0,95, p=0,01)

4. BaSICS Çalışması: Ağustos 2021'de JAMA'da yayınlanmıştır. İzotonik solüsyonlar ve majör renal yan etkilerini araştırmayı hedefleyen bu çalışmaya YBÜ'de yatan 11.052 yetişkin hasta dahil edilmiş (34 ay). Bir gruba salin, diğer gruba dengeli solüsyon verilmiş. Birincil sonlanım 90 günlük mortalite iken; ikincil sonlanımlar ise 7.günde SOFA skoru ve 90 gün içinde diyaliz ihtiyacı olarak belirlenmiş.

- Birincil sonlanıma göre 90 günlük mortalitede iki grup arasında anlamlı fark saptanmamış. Dengeli solüsyon alan 5230 hastanın 1381'i (%26,4) ölmüş, buna karşılık salin alan 5290 hastanın 1439'u (%27,2) ölmüş (düzeltilmiş HR, 0,97; p= 0,47)
- İkincil sonlanımlara göre ise 7. gündeki SOFA skoru, salin grubuna kıyasla dengeli solüsyon grubunda anlamlı derecede farklı bulunmuş. Fakat 90 gün içinde diyalize ihtiyaç duyan hasta sayısı ve diğer tüm ikincil sonuçlarda iki grup arasında istatistiksel anlamlı bir fark saptanmamış.

5. PLUS Çalışması: Mart 2022'de NEJM'de yayınlanmıştır. İzotonik solüsyonlar ve majör renal yan etkilerini araştırmayı hedefleyen bu çalışmaya YBÜ'de yatan 5037 yetişkin hasta dahil edilmiş (36 ay). Bir gruba salin, diğer gruba Plasmalyte-A verilmiş. Birincil sonlanım 90 günlük mortalite iken; ikincil sonlanımlar ise yeni hemodiyaliz ihtiyacı, vazopressör ilaç ihtiyacı, mekanik ventilatör serbest gün sayısı ve kreatinin düzeyleri olarak belirlenmiş.

- Birincil sonlanıma göre 90 günlük mortalitede iki grup arasında anlamlı fark saptanmamış. (OR: 0,99; %95 GA: 0,86 – 1,14)
- İkincil sonlanımlarda ise; ilk 7 gündeki maksimum kreatinin değeri, 90 günlük renal replasman tedavi ihtiyacı, mekanik ventilatör serbest olarak hayatta kalınan gün sayısı ve 28 günlük tüm nedenlere bağlı mortalite

açısından gruplar arasında istatistiksel anlamlı fark saptanmamış.

ÖZET:

✓ Acil serviste dengeli solüsyonların saline üstün olduğu net olarak kanıtlanamamış durumda. Normal salinin fiyat avantajı da göz önüne alınırsa, acil servislerde normal salin yerine dengeli solüsyona geçmek için henüz yeterli kanıt yok diyebiliriz.

✓ Çalışmalardaki grupların heterojenliği göz önüne alındığında böbrek hastalığı olan veya risk taşıyan popülasyonlara özel olarak planlanan bir çalışmada dengeli solüsyonlar saline üstün olabilir.

✓ Çalışmalar dengeli solüsyonların normal saline üstünlüğünü net olarak gösterememiş olsa da; asit-baz patofizyolojisi üzerinden bakılarak böbrek yetmezliğine gireceği ön görülen hastalarda dengeli solüsyonların tercih edilmesi makul olabilir.

✓ YBÜ'de durumu daha ağır seyreden hasta grubunda dengeli solüsyonların kullanılması düşünülebilir.

KAYNAKLAR:

1. The Journal of the American Medical Association
2. The New England Journal of Medicine
3. UpToDate
4. PubMed
5. www.acilci.net

EMS in USA EMS Refugees and WAR

Doç.Dr. Erdem Çevik

EMS at USA

Emergency medicine is the medical speciality concerned with the care of illnesses or injuries requiring immediate medical attention. Emergency physicians (often called "ER doctors" in the United States) continuously learn to care for unscheduled and undifferentiated patients of all ages.

Emergency physicians generally practice in; hospital emergency departments, pre-hospital settings via emergency medical services and intensive care units. There are two types of EMS system in the world. Anglo – American system and Franco – German System. At Anglo - American system EMS team go to patient and make stabilization than go to the hospital.

Education:

The first emergency medicine residency program in the world began in 1970 at the University of Cincinnati. The first Department of Emergency Medicine at a US medical school occurred in 1971 at the University of Southern California. Residency programs in emergency medicine are configured in 36-month and 48-month formats, and must include a minimum of 36 months of clinical education. The program, in partnership with its Sponsoring Institution, must ensure healthy and safe learning and working environments that promote resident well-being and provide for: access to food while on duty; access to food while on duty; safe, quiet, clean, and private sleep/rest facilities available and accessible for residents with proximity appropriate for safe patient care; clean and private facilities for lactation that have refrigeration capabilities, with proximity appropriate for safe patient care; security and safety measures appropriate to the participating site; and, accommodations for residents with disabilities consistent with the Sponsoring Institution's policy.

- There must be an average of at least five hours per week of planned didactic experiences developed by the program's faculty members
- All planned didactic experiences must be supervised by core physician faculty members
- Each core physician faculty member must attend, on average per year, at least 20 percent of planned didactic experiences.
- Residents must actively participate, on average, in at least 70 percent of the planned didactic experiences offered.
- Residents may not work more than 12 hour
- There must be at least one equivalent period of continuous time off between scheduled work period.
- A resident must not work more than 60 scheduled hours per week seeing patients in the emergency department, and no more than 72 total hours per week.
- Emergency medicine residents must have a minimum of one day (24-hour period) free per each seven-day period
- 50.000 – 65.000 dollar / year for residents

➢ 150.000 – 300.000 dollar / year for emergency physicians (patients care, speaking engagements or acting as an expert witness.

There are alot of fellow ship training program. Some of theese are; Clinical Informatics, Emergency Medical Services, Medical Toxicology, Pediatric Emergency Medicine, Sports Medicine, Undersea and Hyperbaric Medicine, Critical Care Medicine, Pain Medicine and Hospice and Palliative Medicine.

Board certification: The American Board of Emergency Medicine (ABEM) is for those with either Doctor of Medicine (MD) or Doctor of Osteopathic Medicine (DO) degrees. The ABEM is under the authority of the American Board of Medical Specialties.

War to EMS and EMS at War

Prior to 1970, the emergency medical care received by civilian patients was reported to be worse than on battlefields (II. World War, Vietnam). After that the first emergency medicine residency program in the world began in 1970. Triage and field hospitals started after wars and we are using these field hospitals at everywhere. At disaster, at war and where you need it. Anyone, Anything, Anytime A History of Emergency Medicine is the book of Dr. Zink and the said that " There were zero residency-trained emergency physicians in 1970, it is not surprising that the rag-tag collection of physicians who worked in ED's at that time were often unprepared to handle serious trauma cases. The growth of the field of emergency medicine parallels the systemization of trauma care ". And the last word of Zink is "Many medical providers took their grim experiences in Vietnam and repurposed them to transform EMS, ED, and in-hospital trauma care. It is no understatement to say that due to this, thousands of life have been saved in our communities".

Refugees

People who have been granted asylum, humanitarian protection or temporary protection under the immigration rules and their dependents. According to United Nations Refugee Agency there are 32.5 million refugees and 5.3 million need international protection. The 72% of refugees originate from Syrian Arab Republic, Venezuela, Ukraine, Afghanistan and South Sudan. Turkiye hosts the largest number of refugees with the number of 3.7 million. In Turkiye the 276752 refugees are at camps and the others are in cities. The most frequent healthcare visit was through the emergency department and the most frequent encounter was for respiratory illness. Disease distributions are upper respiratory tract infection, myalgia, abdominal and pelvic pain, urinary tract infection and chest pain.

Ajite Hasta Yönetimi

Dr.Öğ.Üyesi Ertan CÖMERTPAY

SBÜ Gülhane Eğitim Ve Araştırma Hastanesi Acil Tıp A.D.

Ajitasyon: Kişinin, kendisi ya da yakın çevresinin güvenliğini tehlikeye sokan her türlü sesli, sözlü ve/veya motor davranışlar kümesidir. Körükleme, duygu sömürüsü yapma halidir.

Analjezi: Ağrının algılanmasının azaltılmasıdır. Bilinç değişikliği yoktur. Ancak ilacın sekonder etkisine bağlı olarak bilinçte değişme olabilir.

Anksiyolizis: Mevcut olan durum için korku, endişe ve huzursuzluğun azaltılmasıdır. Uyanıklık düzeyinde herhangi bir değişiklik olmaz.

Sedasyon: Hastanın çevreye ilgisinin ve dış uyaranlara karşı tepkinin azaltılmasıdır.

Amnezi: Bir zaman döneminin ya da bir olayın hatırlanamamasıdır.

Sedasyon gereken durumlar:

Akut ağrılı durumlar,Ortopedik manipülasyonlar,Yanık, abse drenajı, yara debritmanı,Endotrakeal entübasyon,Torasentez,Toraks tüpü takılması,Kardiyoversiyon,Sütür atılması,MR, BT gibi görüntülemeler sırasında.

Sedasyonda amacımız:

Minimal anksiyete,minimal ağrı,maksimum amnezi,İstenmeyen motor davranışların kontrolünü sağlamalıyız.Bunlar sağlanırken de mevcut kardiyovasküler ve respiratuar fonksiyonların devamlılığını sağlamalıyız.

Prosedürel sedasyon:

Planlanmamış, zamana duyarlı prosedürler içerir.Anksiyete, ağrı ve/veya hareketi azaltmak için anksiyolitik, sedatif, hipnotik, analjezik ve/veya dissosiyatif ilaçların kullanılmasıdır. Hasta konforunu ve güvenliğini sağlamak için uygulanır. Sedasyon seviyeleri, kullanılan ajanlar tarafından değil, hastanın yanıt verme düzeyi ve kardiyopulmoner fonksiyon ile tanımlanır.

Sedasyon Derinliği:

	Minimal Sedasyon	Orta Sedasyon	Derin Sedasyon	Genel Anestezi
İletişim	Sözlü uyarana normal cevap verir	Hst sözel uyarana hafif dokunmaya yanıt verir	Hst ağrılı uyarana cevap verir	Bilinç ve nöromüsküler fonksiyon yoktur
Havayolu	Etkilenmemiş	Girişim gerekmez	Girişim gerekebilir	Hayati refleksler yoktur ; girişim gerekir
Spontan Ventilasyon	Etkilenmemiş	Yeterlidir	Yetersiz olabilir; aralıklarla hst nefes alması için uyarılmalı	Yetersizdir; ambu ya da ventilatörle desteklenmeli
Kardiyovask. sist.	Etkilenmemiş	Genelde korunur	Genelde korunur	Bozulabilir

Minimal sedasyon:

Anksiyoliz ile karakterizedir, ancak normal veya sözlü uyaranlara yavaş tepkiler.

Minimal sedasyon tipik olarak hasta işbirliği gerektiren küçük prosedürler ve ağrının lokal veya bölgesel anestezi ile kontrol altına alındığı işlemler için kullanılır. (Lomber ponksyon,apse drenajı,basit fraktür redüksiyonları gibi)

Minimal sedasyon sırasında, solunum fonksiyonu genellikle düşük bir hipoksi veya hipoventilasyon riski ile korunur.

Orta derecede sedasyon:

Depresif bir bilinç düzeyi ve basit sözlü veya dokunsal uyaranlara karşı daha yavaş fakat amaçlı bir motor tepki ile karakterizedir. Bu seviyedeki hastalar genellikle gözlerini kapatır veya pitoz gösterir ve sözlü komutlara yavaş yanıt verir.Hasta kooperasyonunun gerekli olmadığı ve kas gevşemesinin istendiği işlemlerde orta derecede sedasyon kullanılabilir.(Omuz dislokasyonu,torokostomi tüp yerleştirilmesi ve senkronize kardiyo versiyon gibi durumlarda) Orta derecede sedasyon sırasında, hasta genellikle yeterli solunum ile açık hava yolunu koruyabilir ve kardiyovasküler fonksiyon genellikle korunur.

Dissosiyatif sedasyon, yakın çevreden ayrılma durumudur.

Koruyucu hava yolu reflekslerinin, spontan solunumların ve kardiyopulmoner stabilitenin tutulduğu derin analjezi ve amnezi ile karakterize trans benzeri bir kataleptik durumdur.Ayrışmış hastaların tekrarlayan veya ağrılı olsa bile uyaranlara yanıt vermemesi, bu tür hastaların "orta sedasyon" veya "derin sedasyon" kategorilerine uymadığı anlamına gelir.

Derin Sedasyon:

Hastaların kolaylıkla uyandırılamadığı ancak ağrılı ve tekrarlayan uyarılara yanıt verebildikleri, solunum ve hava yolu devamlılığını sağlayabilmeleri için yardım gerekebilecek, kardiyovasküler fonksiyonları ise genellikle devam ettirebildikleri sedasyon derinliğidir.Solunum ve kardiyovasküler komplikasyonları önlemek için nabız sayısı, kalp ritmi ve kan basıncını içeren monitörizasyon çok önemlidir.Kalça çıkığı redüksiyonu acil serviste derin sedasyon gerektiren işleme örnek olabilir.

Genel anestezi:

Hastaların tüm uyarılara yanıtsızlıklarının olduğu, hava yolu reflekslerinin kaybolduğu, solunum fonksiyonlarının çoğu zaman kaybolduğu, hava yolu ve solunum devamlılığı için müdahalenin gerek olduğu derin sedasyon derinliğidir.Bu hastalarda kardiyovasküler fonksiyonlar korunmakla beraber, bozulabileceği de unutulmamalıdır.

Prosedürel sedasyon ve analjezi için acil tıp uzmanı,hemşire ve solunum terapisti olması lazım ve her an resusütasyona hazır olunmalı. Resusütasyon için gerekli ekipmanlar hasta başında hazır olmalı.

Hastaların değerlendirilemesi:

Hastanın girişimsel sedayona uygunluğunu değerlendirmek için en uygun sistem Amerikan Anestezi Uzmanları Derneğinin sınıflamasıdır.Buna göre sınıf 1 ve 2 de komplikasyon riski %5 ten az iken sınıf yükseldikçe risk artmasına rağmen acil servisler sedayon için güvenli alanlardır.

TABLE 37-2 American Society of Anesthesiologists (ASA) Classification System

ASA Class	Description	Examples
Class I	Healthy	
Class II	Mild systemic disease	Mild asthma, pregnancy, obesity, controlled diabetes
Class III	Severe systemic disease	Pneumonia, moderate to severe asthma, premature infant with postconceptional age <60 wk, end-stage renal disease
Class IV	Severe systemic disease that is a constant threat to life	Sepsis, severe cardiac dysfunction, disseminated intravascular coagulation
Class V	Moribund and not expected to survive without surgery	Massive trauma, intracranial hemorrhage with mass effect, ischemic bowel with multiple organ system dysfunction
Class VI	Declared brain dead whose organs are being harvested	

Aşağıdaki durumlarda dikkatli olmak gerekli.

Hastanın büyük dil,kısa boyun,trismus,morbid obesite,mikrognati durumlarının varlığı zor hava yolu potansiyeli olduğunu unutturmamalıdır.

Hipovolemi ve KOAH varlığı sedasyonda komplikasyon riskini yükseltecektir.

Uyuşturucu veya toksik dozda alkol kullanımı olan hastalarda hipovolemi ve hipoventilasyon artacağından girişimsel sedasyon ertelenmelidir.

Acil servislerde zaman duyarlı müdahaleler için açlık düzeyine bakılmaksızın sedasyon işlemine başlanılır.

Prosedürel sedasyon analjezi nasıl takip edilir.

İnteraktif ve fizyolojik izlem gerektirir.

İnteraktif izlemde hava yolu,göğüs duvar hareketleri,hastanın tepkisini içerir.

Fizyolojik izlemde,arteriyal oksijenasyon ventilasyon ,kan basıncı ve kalp ritmi sürekli izlenmelidir.

Nabız oksimetre hipoventilastyon ve apne gelişimini saptayamaz.Çünkü oksijen desteği alan hastada saturasyon düşmeden önce ventilasyon bozulabilir. Bunun için balon valf maske ve hava yolu açıklığı sağlamak yeterli olabilir.

Kapnograf ventilasyonun değerlendirilmesinde kullanılabilinir.End-tidalda CO□ te tek seferde 10mm-Hg artış olması veya CO□ basıncının 50 mm-Hg nın üzerinde olması hipoventilasyon göstergesidir.Klinik gözlemden önce ventilasyondaki değişimi gösterir.Kapnograf kullanılması hasta güvenliğini arttıran bir yöntemdir.

Sedasyon öncesi analjezi sağlamak için kısa etkili fentanil gibi bir opioid kullanılması önerilmekle birlikte; prosedürel sedasyon analjezi(psa) ile ağrı kontrolünde sağlanacağından beklemeye gerek olmadan direk işleme geçilebilinir.

Propofol:

Orta ve derin psa için güvenilir bir ilaçtır.Hızlı başlangıç kısa süreli sedasyon amnezi ve kas gevşemesinden dolayı iyi bir tercihtir.En ciddi yan etkisi solunum depresyonu ve apnedir.(-) inotrop ve vazodilatasyon sonucu hipotansiyon oluşturabilir.Uygulama öncesi hipovolemi mutlaka düzeltilmelidir.30-60 snde etki başlara 5-6 dk sürer.0,5-1 mgr/kg dozla İV başlanır 3-5 dk da bir idame 0,5 mgr/kg devam edilir.Soya ve yumurta allerjisi olanlarda dikkat edilmesi söylenebilirken son yıllardaki çalışmalarda tek kontrenikasyon için ilacın kendisine karşı gelişen allejidir. Uygulama yeri ağrısı için lidokainle karıştırılabilir.

Ketamin:

Derin analjezi,sedasyon ve amnezide başarılı.Hem analjezik hem de anksiyolitik etkiye sahiptir.Düşük dozlarda 0,1-0,3 mgr/kg analjezi ve minimal sedasyon meydana gelir.1-1,5 mgr/kg İV yada 3-4 mgr/kg İM doza çıkıldığında karakteristik disosiyasyon durumu aniden gelişebilir.İV verildiğinde 10 dk,İM verildiğinde 40 dklık sedasyon elde edilebilinir.Ventilasyon çabasını korur,kan basıncı üzerinde minimun azaltıcı etkisi vardır.

Reaksiyonları hafif ajitasyonlardan kabuslara ve halüsünasyonlara kadar olabilir.Bu etkilerin azaltılması için midazolam (0,03mg/kg İV) veya propofol (30-40 mg) verilebilir.Şizofreni ve psikozlu hastalarada reaksiyonların ortaya çıkma olasılığı nedeniyle kullanılması önerilmez.İştahsızlık,bulantı,kusma %5-15 arası görülebilir.Bu durum için antiemetik bir ajan kullanabilirsiniz.Aşırı sempatik aktiviteden dolayı kan basıncında önemli bir artış yapar.Kan basıncı son dozdan 15 dk sonra anestezi öncesi değerlere gelir.Nadiren hipersalivasyon ve bronkore yapabilir.

2014 ten sonra yapılan derlemelerde istenmeyen intrakraniyal basınç (ICP) artışına neden olmadığı görülmüş. Hidrosefali olmadığı durumlarda ICP artışına rastlanılmamış.Acil serviste potansiyel kafa travmalarında zararlı olduğuna ait net deliller yoktur. Kırık atelleme,göğüs tüpü yerleştirme ,çıkarma ; saha amputasyonlarında tercih edebilirsiniz.

Etomitad:

Non barbitürat minimum yan etki,hızlı başlangıç ve kısa etki süresine sahip olduğundan tercih edilir. Sedatif ve hipnotiktir.Psa dozu 0,1-0,2 mgr/kg her 3-5 dkda tekrar dozuda 0,05 mgr/kg dır.Etkisi 1 dk dan kısa zamanda başlar etki süresi 4-15 dk dır.Omuz redüksiyonunda etomidat (10dk) ve midazolamla (23dk) karşılaştırıldığında hastalar etomidatla daha hızlı uyandığı görülmüş.

Kısa süreli ve minimal hemodinamik etkisinden dolayı kardiyoversiyonda tercih edilebilir.Birçok çalışmada etomidatın sepsis veya travmalı hastalarda kullanımı onaylandı.

Adrenokortikal baskılanma ve myoklonusa neden olabilir.Bazı çalışmalarda etomidatın myoklonus etkisinin hemen hemen hastaların yarısında görüldüğü belirtilmiş.Bu etkiyi azaltmak için 1-2 mgr İV midazolam önceden verilebilir.Bulantı kusma için antiemetik verilebilir.%40 oranında görülebilir.

Ketamin propofol kombinasyonu:

Ketamin,propofolun solunum ve hemodinamik depresyonunu hafifletir. Ketaminle ilgili advers olaylar propofolün antiemetik ve hipnotik özelliklerinden dolayı azalır. Birçok çalışmada ketofol PSA için acil serviste güvenilir bir ilaçtır.1990-2017 arası yapılan çalışmalarda ketofol daha az solunumsal yan etki oluşturduğu gözlemlenmiştir.

Midazolam:

Hızlı etkisinin başlaması,kısa etki süresi birden çok yoldan kullanımından dolayı tercih edilir.Analjezik etkisi yoktur.Midazolam+ketamin, Midazolam+Fentanil kombinasyonu yapılabilir, ortopedik girişimlerde fentanil kombinasyonu daha etkili olduğu gösterilmiş.Dozu İV yavaş puşe 1-2,5 mgrdır.

2-5 dk bir tekrarlanabilir.Yan etkileri hipotansiyon,hipoventilasyon ve hipoksidir.Opioidlerle birleşirse yan etkiler artar.

Sentetik opioidler:

Fentanil ve türevleri derin sedasyon seviyeleri gerekli olmadığı durumlarda tercih edilebilir. Fentanil 0,5-1,5 mikrogram/kg ile başlanır.Yan etki olarak rijit göğüs sendromu düşük dozlarda bile bildirilmiştir. Hızlı puşe uygulanmasında daha sık görülmüştür. Tedavisinde propofol veya tiyopental kullanılabilir,naloksanın kullanıldığıda bildirilmiştir.

Deksmedetomide:

Acil servis kullanımı çalışmaları yeterli değildir. Fda onayı olmasına rağmen çalışmalarda hemodinamik bozuklukları ön planda saptanmış.

Nitrözoksit (N2O):

En eski ajanlardan birisidir.Lomberponksyon,yara kapama ,katater takılması ,mide tüpü gibi işlemlerde kullanılır.50/50 oksijenle maske ile uygulanır. Uygulama zorlu ve yeterli kanıtların olmaması nedeniyle acil servis kullanımı eleştirilmiştir.

Yan etkiler ve kullanılabilecek antidotlar:

Hipotansiyon için:Kristaloid sıvı,Fenilefrin yada epinefrin

Flumazenil ve Naloksan:Kullanımı çok önerilmez,aspirasyon entübasyon ihtiyacı veya kardiyakvasküler dekompresyon durumlarında kullanılabilir.Naloksan 0,1-0,4 mgr İV Flumazenil 0,2 mgr İV kullanılır.

Kaynaklar:

1. Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9th Edition
2. Unscheduled Procedural Sedation: A Multidisciplinary Consensus Practice Guideline; Ann Emerg Med. 2019 May;73(5):e51-e65. doi: 10.1016/j.annemergmed.2019.02.022.
3. Subdissociative-dose ketamine versus fentanyl for analgesia during propofol procedural sedation: a randomized clinical trial. Acad Emerg Med. 2008 Oct;15(10):877-86. doi: 10.1111/j.1553-2712.2008.00219.x. Epub 2008 Aug 27.
4. The effect of ketamine on intracranial and cerebral perfusion pressure and health outcomes: a systematic review. Ann Emerg Med. 2015 Jan;65(1):43-51.e2. doi: 10.1016/j.annemergmed.2014.06.018. Epub 2014 Jul 23.

Hayvan Isırıkları ve Böcek Sokmalarında CPR Özel midir?

Uzm. Dr. Alp Giray AYDIN

SBÜ Şişli Hamidiye Etfal EAH Acil Tıp Kliniği

Isırık ve Sokmalarda Genel Hasta Yönetimi

Yaranın değerlendirilmesi, yarayı kapayıp kapamama kararı, yaraya özgül tedaviler olan antibiyotik, tetanoz, kuduz profilaksisi ve antivenom gibi spesifik bir tedavi uygulanması kararı ile acil servis yönetiminden oluşmaktadır.

Yaranın değerlendirilmesi; yaranın temel stabilizasyonu, temizliği, pansuman ve debridmanı, yaradan yabancı cisimlerin uzaklaştırılması ve özellikle yılan ısırıklarında yaralı ekstremitenin istirahat ve elevasyonu basamaklarından oluşmaktadır.

Aşağıdaki yaralanmalarda primer kapama yapılmamalıdır.

- Delici yaralar ve ezilme yaralanmaları
- El ve ayağı kapsayan yaralanmalar
- >12 saat (yüz için>24 saat) eski yaralar
- Yüz dışındaki kedi ve insan ısırıkları
- İmmünkompromize hastalardaki ısırıklar

Antibiyotik profilaksisi rutin değildir ancak aşağıdaki yaralanmalarda profilaksi uygulanmalıdır.

- Derin delici yaralar (özellikle kedi ısırıkları)
- Ciddi düzeyde ezilme yaralanmaları
- Yoğun venöz/lenfatik vasküler yapıların bulunduğu alanlardaki yaralanmalar
- Ellerde, genital alanda, yüz veya ekleme yakın yaralanmalar
- Suture edilecek yaralar
- İmmun kompromize hastalardaki yaralanmalarda

Hastaların immunizasyon ve yaralanma durumlarına göre tetanoz ve kuduz profilaksisi unutulmamalıdır.

Yılan Isırıkları

Türkiye'de 28 zehirsiz, 13 zehirli olmak üzere yaklaşık 41 tür yılan yaşamaktadır. Zehirli yılanların 10 türü Viperidea (engerek), 2 türü Colubridea ve 1 türü de Elapidea (kobra) cinsi yılanlardır. Isırıklar lokal, sistemik, allerjik ve hematolojik reaksiyonlara yol açarlar.

Zehirin stabilitesi yüksektir, ısıya, kuruluğa ve ilaçlara karşı dirençlidir. Cilt altı yapılarda, kapiller endotelde hasara yol açarlar ve hemoliz ve koagülopatiye neden olarak hematotoksik etki gösterirler. Nörotoksinler ise kas sinir kavşağında iletimi engelleyerek nörotoksik etkilere neden olurlar.

Morfolojik özelliklerine bakarak yılanın zehirli olup olmadığını anlamak mümkündür. Pupilin eliptik olması, pupil ile burun deliği arasında çukurcuk olması, zehirli dişlerin ve iki sıra ısırık izinin bulunması, tek sıra subkaudal

halkaların bulunması zehirli yılanların morfolojik özellikleridir.

Klinik

Hastalarda ilk olarak aşırı korku dehşet duygusu gelişir, bu otonomik ve psikolojik belirtiler zehirlenme belirtileri ile karışabilir. Isırıkların yüzde yirmisinde zehir bulaşmayabilir ve bunlar kuru ısırık olarak isimlendirilir.

Isırıktan 30-60 dakika sonra ağrı, ödem, eritem ve ekimoz gibi lokal bulgular başlar. Takiben bulantı, kusma, ağız etrafında uyuşukluk, el ve ayak parmaklarında karıncalanma, kaslarda seyirme, letarji ve güçsüzlük gibi erken sistemik bulgular başlar. Hipotansiyon, takipne, solunum güçlüğü, taşikardi ve bilinç değişikliği gibi ciddi sistemik bulgular gelişebilir.

Hematolojik bozukluklar (PT ve aPTT de uzama, trombositopeni), DIC benzeri hastalık tablosu, hipovolemik şok ve laktik asidoz, böbrek yetmezliği ve allerjik reaksiyonlar gibi hayatı tehdit eden durumlara ilerleyebilir.

Tedavi

Destek tedavi, antivenom, cerrahi tedavi ve rehabilitasyondan oluşur. Yılan ısırıklarında insizyon, emme , turnike vb uygulamalardan kaçınmak gerekir.

Antivenom Tedavi

Polyvalent Snakes Venom Antiserum Sağlık Bakanlığı ve eczaneler tarafından ithal edilmektedir. Engerek ya da tek tür Elapid yılanı tarafından ısırılanlar ve 12 yaşından küçük çocuklar için tüm yılan sokmaları toksik kabul edilmelidir. Unstabil hastalara da başka seçenekleri olmadığı için mutlaka antivenom verilmelidir.

Antivenom Endikasyonları:

- Şok, hipotansiyon, EKG anormallikleri
- Nörotoksik belirtiler
- Bilinç bozukluğu
- Spontan sistemik kanama
- Koagulopati
- Lokal şişliğin progresif bir şekilde yayılması durumlarıdır.

Antivenomlar İV uygulanmalıdır. Allerjik reaksiyon oranı %23–56'dır. Geç alerjik reaksiyon- serum hastalığına benzer tabloya yol açabilirler.

Kompartman sendromu gelişirse ekstremite elevasyonu ve takip eden 1 saat içinde ek doz antivenom uygulanmalıdır. Dolaşım yetmezliği gelişirse fasyatomi uygulanmalıdır.

Antivenoma yanıt varsa; spontan kanama 20 dakikada durur, koagulasyon testleri, pıhtılaşma 6 saat içinde düzelir. Hipotansiyon veya kardiyotoksisite 20-30 dakikada düzelir. Nörotoksisite 30 dakikada düzelmeye başlar ama tamamen iyileşme için saatler gerekir.

Asemptomatik yılan ısırıklarında; nörotoksik yılan türünün yaşadığı bilinen alanda ısıran tür bilinmiyorsa 24 saat, izole koagulopati beklentisi varsa 12 saat, rabdomiyoliz beklentisi varsa 24 saat gözlenmelidir. Gece ısırıklarını da taburcu etmektense gözlemek akıllıca olur.

Böcek Sokmaları

Lokal reaksiyonlardan ciddi anafilaktoid reaksiyonlara kadar neden olabilirler. Mortalite nedeni anafilaktoid reaksiyon sonucu gelişen havayolu tıkanıklığı ve kardiyovasküler etkilenmedir.

Tedavisi semptomatiktir, sistemik semptomları olanlarda antihistaminikler, steroidler ve epinefrin kullanılır. Aller-

jisi olanlarda desensitizasyon yapılabilir.

Akrep Sokmaları

Ülkemizde Buthidea ve Euscorpidea familyasından olan akrepler yaşamaktadır. Bu akreplerin ısırıklarından ölüme nadir rastlanılır. En ölümcül akrep türü Buthidea familyasından Leiurus Quinquestriatustur.

Klinik

Akrep venomu nöronal sodyum kanallarını açar ve uzamış, aşırı depolarizasyona neden olur. Hem somatik hem de otonomik nöronlar etkilenebilir. Sokulan ekstremitede genellikle ağrı ve parestezi olur, daha sonra jeneralize hale gelebilir. Ciddi vakalarda kraniyal sinir ve otonomik motor disfonksiyon gelişir. Aşırı kasılmalara bağlı yerinde duramama ve ekstremitelerde istemsiz kasılmalar, bulantı, kusma, taşikardi ve ciddi ajitasyon görülebilir. Antivenomsuz semptomlar 24-48 saate düzelir. Kardiyak disfonksiyon, pulmoner ödem, pankreatit, kanama diyatezi, cilt nekrozu ve ölüm görülebilir. Tanı klinik ile koyulur.

Tedavide rutin antivenom uygulanmasının yararı yoktur. Çok ciddi vakalarda uygulanır. Anafilaktoid reaksiyon ve serum hastalığına yol açabilir.

Örümcek Isırıkları

Etobur ve yırtıcı hayvanlardır. Kurbanını yemeden önce paralize ederler. Venomları nörotoksin, protein ve biyolojik aminler içerir.

İnsanda klinik semptom veren iki tür örümcek vardır. Bunlar Loxoceles ve Lacrodectus türü örümceklerdir.

Loxoceles türünün lokal yaptığı etkiye Nekrotizan Araknidizm sistemik etkisine ise Loksoselizm denmektedir. Loxoceles türünde L.Recluse (Brown recluse) ve L.Rufescens (Akdeniz reclusu) yer almaktadır.

Nekrotizan Araknidizmde ısırıktan 2-3 saat sonra eritem, siyanoz, ağrı ve santral yerleşimli vezikül veya bül oluşur. Lezyon 12-24 saat içinde hemorajik eritem, iskemi, tromboz ve nekrozu yansıtan kırmızı, beyaz, mavi ve siyah renk alır. Santralden başlayan nekroz 1-6 hf maximum büyüklüğe ulaşarak ilerler.

Sistemik Loksoselizm ise daha çok çocuklarda 24-96 saatte gelişir. Tam bir sistemik reaksiyonda hepatik ve pankreatik inflamasyon, pulmoner ödem ve efüzyon ile kalp yetmezliği gelişebilir. Yaşamı tehdit eden en sık reaksiyon hemolitik anemi, trombositopeni ve DIC'tir.

Nekrotizan araknidizm tedavisinin temelini lokal yara bakımı oluşturur. İkincil enfeksiyon gelişmişse sistemik antibiyotik başlanabilir 4-8 hf sonra gerekli ise debritman veya greft uygulanmalıdır. Venomu daha derin dokulara yayabileceği için erken cerrahi kontrendikedir. Şu an ticari olarak ulaşılabilen bir brown recluse antivenomu yoktur.

Sistemik Loksoselizm tedavisinde ise hastaneye yatış ve yoğun destek tedavisi uygulanmalıdır. Hemoliz gelişirse metilprednozolon kullanılabilir. Anemi veya kanama varlığında kan ürünleri replasmanı yapılabilir. Diyaliz venomu elimine etmemektedir fakat böbrek yetmezliğinde kullanılabilir.

Latrodectus Türü Örümcek Isırıkları

Klinik bulguları norotoksin olan latrotoksine bağlı ortaya çıkar. En tehlikeli örümcek türüdür. L.mactans (karadul) ülkemizde bir çeşidi olan L.terdecimguttatus (akdeniz karadulu) insanlar için zararlıdır.

Alfa latrotoksin presinaptik membranda kalsiyum kanallarına etki ederek ach, noradrenalin ,dopamin, glutamin ve enkafalin gibi norotransmiter salımına neden olur. En önemli semptomdam sorumlu olan nörotransmitter ach olup ciddi kas krampları ve ağrı meydana getirir. Target lezyonu latrodectus için tipik olup 12 saat sonra solar ve kaybolur. Sistemik semptomlar ilk 12 saatte ortaya çıkar. İlk başta ısırık bölgesinde ağrı ve lenf nodu hassasiyeti sonra ekstremitelerde, karın, sırt bölgesinde büyük kasları tutan spazm ve rijidite meydana gelir.

Tedavide ağrı varsa narkotik analjezikler kullanılabilir. Hidrasyon ve tetanoz profilaksisi uygulanabilir. Kas gevşe-

tici ve benzodiazepinler ağrıyı azaltmada faydalıdır.

Antivenom ciddi vakalarda fayda sağlayabilir. Ancak ülkemizde antivenom bulunmamaktadır. Semptomların erken dönemde çıktığı olgular, çocuklar, gebeler, kardiovasküler hastalığı olan hastalar ve yüksek doz narkotik ihtiyacı olan hastalar hastaneye yatırılarak tedavi edilmelidir.

Arı Sokmaları

Hymenoptera sokmaları hafif lokal reaksiyondan ölümcül sistemik reaksiyonlara ve organ yetmezliklerine neden olabilmektedir.

Lokal olarak ısırık bölgesinde ağrı, ödem, eritem ve kaşıntıya neden olabilmektedir. Eğer dil ve boğaz bölgesindeyse havayolu hızla tehlikeye girebilir.

Sistemik reaksiyonlar çok sayıda arı tarafından sokulmalarda ortaya çıkar. Bulantı, kusma, ishal, bayılma ve sersemlik hissi sık karşılaşılan belirtilerdir. Baş ağrısı, ateş, istemsiz kas spazmları, epileptik nöbetler görülebilir. Ürtiker ve bronkospazm olmadan solunum yetmezliği ve arrest ortaya çıkabilir. Böbrek, KC yetmezliği ve DİC bildirilmiştir.

Anafilaktik Reaksiyon

Hipersensivite reaksiyonudur. Ölümcül reaksiyon sıklıkla ilk 15 dakika içinde ortaya çıkar ve ölümler hemen tamamen ilk 6 saat içindedir. İlk belirtiler sıklıkla gözlerde kaşınma, yüzde kızarma ve yanma, yaygın ürtiker ve kuru öksürüktür. Hızlı bir şekilde boğazda ve göğüste sıkışma, daralma, hırıltılı solunum, solunum sıkıntısı, siyanoz, kanlı-köpüklü balgam, bayılma ve şoka ilerleyebilir.

Sistemik belirtileri hızla gelişen, ciddi ürtikeryal lezyonları yanında hipotansiyonu da olan kişilerin tedavisi anafilaksi tedavisi gibi başlanır. Yetişkinde 1/1000 lik adrenalinden 0,3-0,5 mg, çocuklarda 0,01 mg/kg maksimum 0,3 mg. Intramüskuler yapılmalı ve masaj yapılarak emilimi hızlandırılmalıdır. Antihistaminik Metilprednisolon, bronkospazm gelişirse nebülle B2 agonistler, hipotansiyon için kristaloid infüzyonu ve santral venöz basınç takibi yapılmalıdır. Hipotansiyon devam eder ise dopamin infüzyonu, bu da yeterli olmaz ise adrenalin infüzyonu başlanmalıdır.

Korunmada adrenalin otoenjektörleri kullanılabilir.

Tartışma

Tüm güncel resusitasyon klavuzlarında ve "özel durumlarda CPR" başlığında geçen durumlarda resusitasyon esnasında direk hayvan ısırıkları ve böcek sokmaları ile ilişkilendirilen bir tedavi önerisi bulunmamaktadır.

Ancak toksinin yaratabileceği anafilaktik etkiler ve diğer hematolojik, nörotoksik, allerjik, multisistemik etkiler bazı hastalarda arrest nedeni olabilir.

Anafilaksiye bağlı arrest durumunda standart resusitatif önlemler ve acil epinefrin uygulanması öncelikli olmalıdır. (Class I öneri) Anafilaksiye sekonder arrest durumunda post CPR hastalarda şok durumunda iv epinefrin infüzyonu uygulanabilir. (Class IIb)

Geri döndürülebilir nedenler (H'ler, T'ler) arasında bulunan Toksinler (Antitoksin-antivenom) uygulanması özellikle prearrest ve postCPR hastalarda düşünülebilir. CPR esnasında rutin kullanımını öneren bir klavuz bilgisi bulunmamaktadır.

HER RENAL KOLİK GERÇEKTEN RENAL KOLİK Mİ?

Büşra BEKTAŞ

Sağlık Bakanlığı Üniversitesi Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi

Nefrolitiazis, yaygın bir acil servislere başvuru sebebidir. En sık 30-50 yaş aralığında görülür. Nefrolithiazis risk faktörleri; obezite, azalmış idrar hacmi, aşırı et tüketimi, aşırı sodyum tüketimi, insülin direnci, gut hastalığı, geçirilmiş bağırsak cerrahisi, irritabl bağırsak hastalığı, primer hiperparatiroidizm, uzun süre hareketsizlik, aile hikayesinin olması, loop diüretik, indinavir, asiklovir, triamteren gibi ilaç kullanımıdır. En sık karşılaşılan iki semptomu akut başlangıçlı kramp tarzında ağrı ve hematüridir. Hastaların %30unda gross hematüri görülür. Bunun yanında belirsiz karın ağrısı, bulantı, idrara sıkışma, sık idrara çıkma, idrara çıkma zorluğu, penis veya testis ağrısı gibi atipik semptomlar görülebilir. Ağrı; üst üreter taşlarında flank bölgede, alt-orta üreter taşlarında batın alt anterior kadranda, distal üreter taşlarında kasık bölgesinde hissedilir. Hikayede; taş oluşumu için risk faktörleri, daha önceden nefrolithiazis öyküsü, böbrek hastalığı geçmişi ve taklit edebilen önemli durumlar önemlidir. Tanı için detaylı anamnez, fizik muayene, vital bulgular ve EKG çekimi yapılmalıdır. Laboratuar parametrelerinden hemogram, elektrolitler, böbrek fonksiyon testleri, B-HCG ve tam idrar tahlili gönderilmelidir. Görüntülemede; kontrastsız BT, USG veya düz karın grafisi ile tanı konulabilir. Kontrastsız BT'nin duyarlılığı ve özgüllüğü en yüksektir.

Ayırıcı tanıda vasküler, torakal, renal, genitoüriner, gastrointestinal ve jinekolojik patolojiler olarak gruplandırılabilir. Vasküler patolojilerden aort diseksiyonu, abdominal aort anevriması, renal arter embolisi, renal ven trombozu, mezenter iskemi yer alır. Aort diseksiyonu erkeklerde, 50-70 yaş aralığında görülür. Hipertansiyon, etiyolojisinde en önemli faktördür. Çoğunlukla yırtıcı vasıfta, ani ve şiddetli ağrı tariflenir. Bu ağrıya benzer karakterdeki renal kolik, ciddi, aralıklı flank ağrısı olarak tanımlanır. Abdominal aort anevrizması 50 yaş üzerinde; karın ağrısı yan ağrısı, hipotansiyon, pulsatil abdominal kitle triadı olarak tanımlanır. Asemptomatikten, abdomen, sırt ya da böğürde ani, yırtılır tarzda ağrı, bulantı kusma, senkop, şok, ani ölüme kadar ciddi sonuçlar yaratabilir. Açık bir şekilde başka bir nedene bağlanamayan semptomlarda anevrizma düşünülmelidir. Renal enfarktüste hastalar sıklıkla bulantı, kusma ve bazen de ateşin eşlik ettiği akut başlangıçlı yan veya karın ağrısından şikayet ederler. Serum laktat dehidrojenaz yükselme görülebilir. Nefrolitiazis serum laktat dehidrojenazda yükselme ile ilişkili değildir. Renal ven trombozu en sık olarak nefrotik sendromlu erişkinlerde veya kalıtsal trombofilisi olanlarda görülür. Yan ağrısı, mikroskobik veya gross hematüri, serum laktat dehidrojenazda belirgin bir yükselme ile karakterizedir. Mezenterik arter tıkanıklığı, atriyal fibrilasyonu (veya emboli için başka bir kaynağı) ve fizik muayene ile orantısız şiddetli karın ağrısı olan yaşlılarda görülür. Mide bulantısı ve kusma da yaygındır. Trombotik mezenterik oklüzyonlu tipik hasta, ateroskleroz ve muhtemelen bilinen periferik arter hastalığı için risk faktörlerine sahip olan ve kronik postprandiyal karın ağrısı semptomları ile başvurur. Torakal patolojilerden akut koroner sendrom, pnömoni, plevrit ve kot fraktürüne dikkat edilmelidir. Renal patolojiler; arasında piyelonefrit, renal apse, renal hematom ve tümörler bulunmaktadır. Genitoüriner patolojiler; sistit, testis torsiyonu ve epididimittir. Gatrointestinal patolojiler; peptik ülser, kolesistit, pankreatit, apandisit, divertikülit, inguinal hernidir. Jinekolojik patolojiler; ektopik gebelik, pelvik inflamatuar hastalık, over kisti veya torsiyonu, endometriozis ve dismenore bulunmaktadır. Tüm bunların dışında zona, nutcracker sendromu, retroperitoneal apse, hematom, tümör, iliak osteomyelit, myalji ve ilaç arama davranışı da renal kolik benzeri semptomlarla başvuruya neden olabilir.

Renal kolik yönetiminde ayırıcı tanılar çok çeşitli olup detaylı anamnez, hikaye, fizik muayene ile şüpheci olmak önemlidir.

ÇOCUK HASTADA ŞOK SENARYOLARI

Dr. Hüseyin GÜRBÜZ

Gaziantep Ersin Arslan Eğitim Araştırma Hastanesi Acil Tıp Kliniği

Şokun Tanımı

Kan dolaşımı ve doku perfüzyonunun azalması sonucu, oksijen ve diğer hayati maddelerin sağlanamadığı, metabolik atıkların temizlenemediği, akut ve hayati tehlike oluşturan bir durumdur.

Çocuk ve Erişkin Şok Farkları

Çocuklarda görülen şok, erişkinin küçük modeli değildir. Erişkine göre, çocuklardaki kan basıncının normal değeri daha düşüktür. Bundan dolayı, çocuklar daha düşük olan kan basıncının hızla düşmesini tolere edemezler. Çocuklarda sistemik damar direnci ve vazoaktif kapasite yüksek olduğundan dolayı çocuklarda hipotansiyon şokun geç dönemlerinde ortaya çıkar.

Şok Nedenleri

Dolaşan kan volümünde yetersizlik, kalbin pompa fonksiyonlarında bozukluk, vasküler dirençte değişiklik, kan akımının engellenmesi ve endokrin nedenler şokun asıl nedenleridir.

Şokta Tanı

Dolaşımın değerlendirilmesi, nabız sayısı ve dolgunluğu, cilt rengi, bilinç düzeyi, İdrar miktarı ve azalmış cilt dolaşımı şokun erken belirtisi olabilir. İdrar miktarının normal değeri 1-2ml/kg/saat iken k**ötü dolaşım** ve hipovolemide çocuklarda idrar miktarı <1ml/kg/saat, erişkinlerde idrar miktarı <30ml/saat olur.

Şok Endeksi

Nabız / Sistolik kan basıncı oranına şok endeksi denir.

Normalde 0.5-0.7 aralığında iken 0.8'in üzerine çıkması şok lehinedir.

Şok her zaman değil ama çoğunlukla sistemik arteriyel hipotansiyon ile birliktedir.

Şok Sınıflaması

Nedene göre;

Hipovolemik, dstribütif (septik, nörojenik, anaflaktik vb), kardiyojenik, obstrüktif

Fizyolojik duruma göre;

Kompanze, dekompanze ve İrreversible şok olarak sınıflandırılır.

Hipovolemik Şok

Pediatrik hastalarda görülen en yaygın şok türüdür. Hipovolemi, gerçek sıvı kayıpları (gastrointestinal kayıplarla birlikte şiddetli dehidratasyon, diabetes mellitusta renal kayıplar, vb.) veya hemorajik şokta olduğu gibi belirgin kan kaybı ile birlikte mutlak olabilir. Hemorajik olmayan hipovolemik şok, gelişmekte olan ülkelerde görülen en yaygın tiptir. Fizik muayenede kuru mukoza, çökük gözler ve fontaneller, cilt turgorunda azalma ile dehidrasyon bulguları mevcuttur.

Kardiyojenik Şok

Doğuştan kalp hastalığı, kardiyomiyopatiler, aritmiler. kardiyojenik şoka neden olurlar. Sıvı hacmi normal veya

artmış olmasına rağmen miyokard işlev bozukluğu nedeniyle kalp debisi düşmüştür.

Nörojenik Şok

Nörojenik şok medulla spinaliste sekonder hasara bağlı meydana gelen otonomik disfonksiyona bağlıdır. Periferik vasküler direnç kaybolur. Venöz damarlar genişler ve relatif hipovolemi gelişir. Çoğunlukla sıvı tedavisine iyi yanıt vermezler. Selektif alfa adrenerjik vazoaktif ilaçlara iyi yanıt verir. Diğer şoklardan farklı olarak kompansatuar mekanizma olan sempatik sistemin devre dışı kalması sonucu taşikardi saptanmaz.

Distribütif Şok

Distribütif şokta sıvı hacminde azalma olmasına rağmen asıl sorun patolojik ve uygunsuz vazodilatasyon, endotel işlev bozukluğu sonucu kapiller kaçak, damar tonusunun kaybı veya bunların hepsinin birlikte bulunmasıdır.

En tipik örnekleri septik şok, anafilaktik şok ve spinal şoktur.

Şokta Tedavi

Erken, hızlı, agresif ve hedefe yönelik tedavi yaklaşımı mortaliteyi düşüren en önemli faktördür. Tedavide amaç, perfüzyonun düzeltilerek dokulara oksijen sunumunun artırılmasıdır.

Taşikardi de gerileme, nabız dolgunluğunda artma, kapiller dolum zamanı< 2 saniye ve tansiyonda yükselme oluncaya kadar sıvı yüklenmelidir.

Spesifik olarak, şokun tanınmasını takiben, damar yolu mümkün olduğu kadar hızlı bir şekilde sabitlenmeli, ardından izotonik salin veya kolloid sıvı bolusları ile her 5 dakikada bir 20 mL/kg olmak üzere toplam 60 mL/kg'a kadar hacim resüsitasyonu yapılmalıdır.

Sepsis şüphesi olan çocuklara şok tedavisinin ilk 15 dakikası içinde antibiyotik verilmelidir. Ek olarak, herhangi bir elektrolit anormalliği (hipoglisemi, hipokalsemi) düzeltilmelidir.

Sonuç:

Pediatrik şok sendromu erken teşhis edilirse tedavi edilebilir. Başarılı yönetim, erken agresif sıvı resüsitasyonunun ardından yatak başı değerlendirmeye dayalı tedavinin bireyselleştirilmesini gerektirir.

Kaynaklar

1. Lincoln S. Smith, Lynn J. Hernan. Shock States. In: Fuhrman BP, Zimmerman JJ. Pediatric Critical Care 4th ed Philadelphia Elsevier 2011: 364-378.

2. Goldstein B, Giroir B, Randolph A. International pediatric sepsis consensus conference: definitions for sepsis and organ dysfunction in pediatrics. Pediatr Crit Care Med 2005;6(1):2-8.

3. Wheeler DS, Kiefer ML, Poss WB. Pediatric emergency preparedness in the office. Am Fam Phys 2000; 61: 3333-42.

4. Stoner MJ, Goodman DG, Cohen DM, Fernandez SA, Hall MW. Rapid fluid resuscitation in pediatrics: Testing the American College of Critical Care Medicine guideline. Ann Emerg Med 2007; 50: 601-7. [30]

5. Brierley J, Carcillo JA, Choong K, et al. Clinical practice parameters for hemodynamic support of pediatric and neonatal septic shock: 2007 update from the American College of Critical Care Medicine. Crit Care Med 2009; 37: 666-88.

6. McKiernan CA, Lieberman SA. Circulatory shock in children: an overview. Pediatr Rev 2005;26(12):451-60.

7. Han YY, Carcillo JA, Dragotta MA, Bills DM, Watson RS, Westerman ME, et al. Early reversal of pediatric-neonatal septic shock by community physicians is associated with improved outcome. Pediatrics 2003;112(4):793-9.

8. Carcillo JA, Fields AI. American College of Critical Care Medicine Task Force Committee Members. Clinical practice parameters for hemodynamic support of pediatric and neonatal patients in septic shock. Crit Care Med 2002;30:1365-78

9. Davis A L, Carcillo J A, Aneja R K et al. American College of Critical Care Medicine Clinical Practice Parameters for Hemodynamic Support of Pediatric and Neonatal Septic Shock. *Crit Care Med.* 2017;45(06):1061–1093

10. Weiss S L, Fitzgerald J C, Pappachan J et al. Global epidemiology of pediatric severe sepsis: the sepsis prevalence, outcomes, and therapies study. *Am J Respir Crit Care Med.* 2015;191(10):1147–1157.

Predatory and Legitimate Publishing

Professor. Dr. Özgür SÖĞÜT

University of Health Sciences, Haseki Research and Training Hospital, Istanbul, Turkey

Publishing original research is critical to academic and professional achievement. When selecting the journal to which you will submit your work, it is important to consider the options very carefully. While there are many academic journals, 30,000 or more in fact based on some reports. It is estimated that around 10,000 journals employ "predatory publishing" practices and should be avoided from such journals at all costs.

A longitudinal study of article volumes and publishing market characteristics estimated 8000 active predatory journals, with total articles increasing from 53,000 in 2010 to 420,000 in 2014 (an estimated three-quarters of authors were from Asia and Africa).

Predatory or Legitimate Publishing?

Over the past decade a group of scholarly journals have proliferated that have become known as "predatory journals" produced by "predatory publishers". Predatory" refers to the fact that these entities prey on academicians for financial profit via article processing charges for open access articles, without meeting scientific publishing standards. Predatory journals exploit the need for academics and researchers to publish their work. They use questionable business tactics such as charging the author to publish Also, they do not provide the professional services of a reputable academic journal.

The purpose of predatory journals is solely to make money for the owners from author fees. To maximize profit, costs are kept low by not hiring staff to perform manuscript evaluation, external pre-publication peer review, clinical and copy editing, quality assurance, corrections, retractions, archiving, authorship verification. In short, they eschew most of the processes in place that "legitimate" journals use to meet scholarly publishing standards.

Most academicians (and their affiliated institutions and the entities that fund their work) want their work to be published in legitimate journals. Unfortunately, the tremendous proliferation of journals both legitimate and predatory makes it increasingly difficult to identify predatory journals.

It is hard to discriminate preditory journal from the legitimate journal. A journal that an author has never heard of might be a legitimate new journal, A legitimate journal that is well established but is read and cited far less frequently than other journals in the discipline, a journal from a part of the world that the author is unfamiliar with, or a "predatory" journal.

Although predatory journals may claim to conduct peer review and mimic the structure of legitimate journals, they publish all or most submitted material without external peer review.

They do not follow standard policies advocated by organizations such as:

---World Association of Medical Editors (WAME)

---Committee on Publication Ethics (COPE),

---International Committee of Medical Journal Editors (ICMJE)

----Council of Science Editors (CSE)

Two substantial efforts to assist researchers in distinguishing predatory from legitimate journals include:

---Beall's List

---Directory of Open Access Journals (DOAJ).

Beall's lists were alarmingly lengthy, with 1155 predatory publishers and 1294 predatory journals being listed as of January 3, 201. In compiling his list, Beall used criteria that he based in part on two policy statements—the COPE Code of Conduct for Journal Publishers and the Principles of Transparency and Best Practice in Scholarly Publishing. While the purpose of Beall's list was to identify "predatory" journals, the DOAJ has the converse purpose of identifying legitimate open access journals. The Directory aims to be comprehensive and cover all open access academic journals that use an appropriate quality control system.

As of January 5, 2017, DOAJ included 9456 journals from 128 countries. However, the DOAJ is not a comprehensive list of all legitimate open access journals and a journal that is not listed should not be assumed to be illegitimate or predatory.

A list of signs that a journal may be predatory is listed below:

--- A common practice among predatory publishers is sending frequent e-mails to large numbers of individuals soliciting manuscript submission and promising rapid publication for author fees that may be lower than those of legitimate author-pays journals.

---The promised published articles never appear on the journal website.

Why should you avoid publishing in a predatory journal?

There are a number of possible consequences to publishing in a predatory journal. These include:

- Published work is not protected
- Work will receive poor or no peer review
- Work could disappear, or you could lose access if the journal is dissolved
- It may be difficult for others to find your work, and when/if it is found, academics may be reluctant to cite it
- There are documented cases in which publishing in a predatory journal, though inadvertently, resulted in ethics accusations and career injury

If you have any doubts about a journal's reputability, consult with a librarian. Librarians are trained to know the publishing process, and those employed by universities work with a wide variety of academic journals daily. Also consult with your colleagues, faculty member or mentor. Their experiences can help guide your way. English grammar errors on publisher or journal websites are also not an immediate indication of predatory publishing, but when examining humanities or social sciences journals that originate in English, it might be a warning sign. Badly designed websites are also not necessarily an immediate indication of predatory behavior, as long as they do not restrict you from getting essential publisher information. Don't worry if the journal doesn't appear to be in every single one of these databases, but do be concerned if it seems to absent from most or all of them.

In conclusion, open access does not mean legitimate or predatory. Open Access journals still adhere to the rigors of scholarly publishing by offering peer review by professionals in the field, editorial guidance from recognized scholars, and professional levels of editing and presentation.

References

1. Memon AR, Waqas A. Indexing by Bibliographic Databases of Journals Published in the Developing World. . Sci Eng Ethics. 2018;24:1371-75.

2. Seethapathy GS, Santhosh Kumar JU, Hareesha AS. India's scientific publication in predatory journals: need for

regulating quality of Indian science and education. Curr Sci. 2016;111:1759-64.

3. Strinzel M, Severin A, Milzow K, Egger M. Blacklists and Whitelists To Tackle Predatory Publishing: a Cross-Sectional Comparison and Thematic Analysis. MBio. 2019;10(3). pii: e00411-19.

4. Beall J. Beall's list of predatory publishers 2016. Scholarly Open Access. Formerly available at https://scholarlyoa.com/2017/01/03/bealls-list-of-predatory-publishers-2017/; now available.

5. Laine C, Winker MA. Identifying predatory or pseudo-journals. Biochem Med (Zagreb). 2017;27:285-91.

6. Eriksson S, Helgesson G. The false academy: predatory publishing in science and bioethics. Med Health Care Philos. 2017;20:163-70.

7. Kratochvíl J, Plch L, Koriťáková E. Compliance with ethical rules for scientific publishing in biomedical Open Access journals indexed in Journal Citation Reports. Vnitr Lek. 2019;65:338-347.

8. Wilkinson TA, Russell CJ, Bennett WE, Cheng ER, Carroll AE. A cross-sectional study of predatory publishing emails received by career development grant awardees. BMJ Open. 2019;9(5):e027928.

Personel Şişedekini Su Zannetmiş (MSDS Formları)

Uzm.Dr.Mehmet Tatlı

SBÜ. VAN Bölge Eğitim ve Araştırma Hastanesi Acil Tıp Bölümü

Vaka:Acil serviste temizlik personellerinin dinlenme odasında; temizlik personeliniz küçük pet şişedekini su zannederek içtiğini ve boğazında yanma hissi olduğunu söyleyerek yanınıza geldi.

Ne yapmalıyız?

Bu olay bir "Adli- İş kazası"'dır. Olayı sorguladınız.

Bir önceki vardiyadaki temizlik personeli çamaşır suyunu büyük bidonunu yanında taşımamak için küçük pet şişelere koymuş.Çıkarken cebindeki şişeyi çıkarıp masa üzerine bırakmış ve orada unutmuş.

Yeni vardiya ile gelen Ahmet de loş bir ortamda su zannederek alıp içmeye çalışmış.

Bu tür olaylar acil servislerde, hastanelerde her zaman karşılaşabileceğimiz türden olaylardır. Doğru şekilde müdahale etmek ve standartizasyonları sağlamak için malzeme güvenlik bilgi formları hakkında bilgi sahibi olmalıyız.

Material Safety Data Sheet (MSDS), Malzeme Güvenlik Bilgi Formu

Çeşitli madde ve ürünlerin kullanımı için iş güvenliği ve sağlığı ile ilgili bilgileri listeleyen bir belgedir.

Kimyasallar, kimyasal bileşikler ve kimyasal karışımlar hakkında gerekli olabilecek tüm bilgileri içerir.

Hastanelerde MSDS

Hastanelerde İş güvenliği uzmanları MSDS formlarını oluşturmak ve temin etmekle sorumludurlar.

Hastanelerde kullanılan tüm kimyasal maddelerin MSDS formları bulunmalıdır.Olası temas ve toksisite durumlarında hızlıca ulaşılabilir olmalıdır.

Resmi Gazete'de yayınlanan "ZARARLI MADDELER VE KARIŞIMLARA İLŞKİN GÜVENLİK FORMLARI HAKKINDA YÖNETMELİK"'e göre malzeme güvenlik bilgi formları hazırlanmaktadır.

13 Aralık 2014 CUMARTESİ Resmî Gazete Sayı : 29204

YÖNETMELİK

Çevre ve Şehircilik Bakanlığından:

ZARARLI MADDELER VE KARIŞIMLARA İLİŞKİN GÜVENLİK BİLGİ FORMLARI HAKKINDA YÖNETMELİK

BİRİNCİ BÖLÜM

Amaç, Kapsam, Dayanak, Tanımlar ve Kısaltmalar

Amaç

MADDE 1 – (1) Bu Yönetmeliğin amacı; piyasaya arz edilen zararlı maddelerin ve karışımların insan sağlığı ve çevre üzerinde yaratabilecekleri olumsuz etkilere karşı etkin kontrol ve gözetimi sağlamak üzere güvenlik bilgi formlarının hazırlanması ve dağıtılmasına ilişkin idari ve teknik usul ve esasları düzenlemektir.

Güvenlik bilgi formlarında yer alması gereken bilgiler şunlardır.

- **MADDE 6 – (1) Güvenlik bilgi formunda yer alması gereken başlıklar aşağıdadır**
- **a) Maddenin/Karışımın ve şirketin/dağıtıcının kimliği**

- **b) Zararlılık tanımlanması**
- **c) Bileşimi/İçindekiler hakkında bilgi**
- **ç) İlk yardım önlemleri**
- **d) Yangınla mücadele önlemleri**
- **e) Kaza sonucu yayılmaya karşı önlemler**
- **f) Elleçleme ve depolama**
- **g) Maruz kalma kontrolleri/kişisel korunma**
- **ğ) Fiziksel ve kimyasal özellikler**
- **h) Kararlılık ve tepkime**
- **ı) Toksikolojik bilgiler**
- **i) Ekolojik bilgiler**
- **j) Bertaraf etme bilgileri**
- **k) Taşımacılık bilgisi**
- **l) Mevzuat bilgisi**
- **m) Diğer bilgiler**

Güvenli kullanım ve potansiyel tehlikelere yönelik talimatların yanı sıra dökülme-taşıma prosedürlerini de içerebilir.Mesleki bir ortamda malzeme ile çalışmanın tehlikelerine odaklanır.

Fiziko-kimyasal, sağlık veya çevresel risk temelinde uygun şekilde etiketleme görevi de vardır.

Etiketler, Avrupa Birliği standart sembolleri gibi tehlike sembolleri içerebilir. MSDS, uluslararası kabul görmüş 16 bölümlük bir formatı takip eder ve özellikle maddeler için, MSDS'yi söz konusu maddenin maruz kalma senaryolarını içeren bir Ek takip etmelidir

Sonuç

Hastanelerimizde iş güvenliği birimlerini aktif olarak kullanmalıyız.İş güvenliği birimlerine hızlıca ulaşabilmeliyiz. Olası temas durumlarında iş kazası ve adli olarak kayıtlarımızı alarak iş güvenliği uzmanına durumu bildirmeliyiz. MSDS (İş Güvenliği Bilgi Formları) hakkında bilgi sahibi olup gerekli durumlar da kullanmalı ve hasta kayıtlarına bu bilgileri aktarmalıyız.İvedi bir şekilde tedavilerimize başlamalıyız.

A FOREIGN OBJECT MIGRATING FROM ESOPHAGUS TO HEART

Busra BEKTAS

Department of Emergency Medicine, University of Health Science Sisli Hamidiye Etfal Training and Research Hospital, Istanbul, Turkey

Introduction

Foreign bodies in the heart are rare, and can reach the heart in different ways. Ingested foreign bodies can cause serious complications such as penetrating injuries. However, there are not many reports of penetrating heart injuries caused by a needle penetrating from the esophagus to the right ventricle. In this case, we present a patient with ingested foreign body that was inadvertently swallowed and perforated the esophagus, then reached the right ventricle and caused a life-threatening situation.

Case Presentation

A 58-year-old female patient, a tailor, was presented to the emergency department with complaints of a feeling stuck in her throat, chest burning, and stomach pain, while eating for the last five days. She had no known medical history except diabetes mellitus. Her vital signs were stable and physical examination was normal. The blood tests were revealed; high levels of leukocytes (23.00 x 10^9/L), neutrophils (20.05 x 10^9/L) and slightly elevated Troponin-T (19.77 ng/L). Moreover, slightly elevated biochemical markers were found as follows creatinine (1.9 mg/dL), urea (41.7 mg/dL), total/direct bilirubin (1.50/1.10 mg/dL), aspartate transaminase (102 U/L), alanine transaminase (103 U/L), gamma glutamyl transferase (113 U/L), and alkaline phosphatase (125 U/L). Sinus tachycardia was found on electrocardiogram.

Bedside echocardiography revealed an effusion smaller than 1 cm in the pericardial space, which did not cause tamponade. The left ventricle ejection fraction was found as 60%. A 32 mm diameter metallic foreign body (needle?) was detected in the intrathoracic area on the computed tomography (CT) of the thorax . It was located obliquely, parallel to the ground, at the 10th thoracic vertebra level, and pointed to the right ventricle. It was assumed that the foreign body was in the myocardium and it had a close relationship with the aorta just proximal to the esophagogastric junction. There was no significant hemorrhage except the pericardium. Dilatation in the esophagus was remarkable. The tracheal and bronchial tract were open, and neither pneumothorax nor hemothorax was not detected. Pleural effusion was not observed. Trace, contour, and calibration of the aorta were followed naturally .

The thoracotomy decision was made with general and cardiovascular surgery together, and preparation for transfer to the operation room (OR) at the cardiovascular surgery center was started. In a while, hemodynamic instability occurred. Hypotension was observed (54/34 mmHg) in the ED follow-up. Positive inotrope was started intravenously. Bedside echocardiography was repeated, and an increase in pericardial effusion was observed. The diastolic collapse was not observed and systolic functions were still normal. The patient was immediately transferred to the OR. Just before the operation, cardiac arrest occurred. A full median sternotomy was performed and successfully resuscitation was made including closed and open compression. A vascular surgeon reached the pericardium by performing a sternotomy. She observed that the pericardial cavity was filled with gastrointestinal fluid and the outer walls of the cardiac structures were impaired due to acidic fluid. Exploration was done and a metallic foreign body (needle) with the invasion of the inferior wall was observed. The needle was carefully removed. After then, the general surgeon started the esophageal exploration. While the exploration active bleeding, which appeared to originate from the fragile inferior vena cava, occurred. The repair was started, but the patient had a cardiac arrest simultaneously, and open CPR was started again. ECMO was applied, and

multiple bleeding foci on cardiac structures are seen. Foci did not allow repair because the tissues were fragile due to acidic contact. Hemofiltration was started due to the lack of urine output and the increase in potassium levels. However, all resuscitative attempts failed and the patient died due to the fatal bleeding that developed during the operation.

Discussion

We present a patient with a self-ingested needle that migrated across the esophagus into the right ventricular wall. The patient required emergent intervention after arriving at the ED caused of the needle's place in the myocardium. Apart from symptomatology, early surgical removal was also indicated given the potential direct inoculation of the gastroesophageal flora into the myocardium. Unfortunately, in our case needle ingestion occurred five days ago, due to the presence of a foreign body in the gastrointestinal tract for a long time, when the operation started, we faced fragile structures with fatal hemorrhages. The CT imaging interrogated the needle's location throughout the management. In our case, prompt removal via upper endoscopy was not considered due to intracardiac migration of the needle.

Intra-cardiac foreign bodies are rare; however, when they do occur, they are often the result of trauma, IV drug use, or iatrogenic issues (1). The foreign bodies can directly pass through the myocardium or embolize through the venous system. When the literature was examined, we found that the foreign bodies in the heart should be managed on an individual basis, including a conservative or surgical approach depending on the clinical case (2,3). In the acute phase, intracardiac migration of foreign bodies should be anticipated due to the forces of respiratory and cardiac movements. Foreign bodies of the heart can be diagnosed immediately after an injury, or later post-complication if a patient becomes symptomatic, or even incidentally during evaluation for another condition. Late complications include pericarditis, cardiac tamponade, and endocarditis (4). In our case, patient had pericardial effusion and also perimyocarditis due to acidic fluid.

Conclusions

Regarding the former statements, our presented case needs attention. Although the patient didn't provide any information about swallowing a needle, physicians should suspect via complaints of discomfort and pains in the digestive tract. Foreign body ingestion should not be considered as basic, it can lead to fatal situations.

References

1. Actis Dato, G. M., Arslanian, A., Di Marzio, P., Filosso, P. L., & Ruffini, E. (2003). Posttraumatic and iatrogenic foreign bodies in the heart: report of fourteen cases and review of the literature. The Journal of thoracic and cardiovascular surgery, 126(2), 408–414. https://doi.org/10.1016/s0022-5223(03)00399-4

2. Perrotta, S., Perrotta, A., & Lentini, S. (2010). In patients with cardiac injuries caused by sewing needles is the surgical approach the recommended treatment?. Interactive cardiovascular and thoracic surgery, 10(5), 783–792. https://doi.org/10.1510/icvts.2009.226167

3. Vesna, D., Tatjana, A., Slobodan, S., & Slobodan, N. (2004). Cardiac tamponade caused by migration of a swallowed sewing needle. Forensic science international, 139(2-3), 237–239. https://doi.org/10.1016/j.forsciint.2003.10.013

4. Woodworth, C. F., Fagan, S. M., Harris, S. R., & Adams, C. (2020). Clinical Pulp Fiction: First Multimodality Imaging of Needle Migration from Distal Esophagus into Ventricular Septum. JACC. Case reports, 2(4), 653–657. https://doi.org/10.1016/j.jaccas.2020.01.013

TOTAL CIRCULATORY ARREST

Dr. Tuba Betül Ümit

Tokat Public Hospital, Turkey

Total circulatory arrest (TCA), also known as deep hypothermic circulatory arrest (DHCA), is a surgical method used in aortic dissection, aortic aneurysm and aortic arch operations. It was first used by Griepp in 1975. In this way, surgery of some complex cases has become possible.

DHCA is based on the complete cessation of circulation after the body temperature is lowered below 18 degrees. One of the mechanisms that prevent nerve and tissue damage is to reduce ATP consumption by reducing glucose demand. The other is to minimize the effect of hypoxia with hypothermia. Cerebral metabolism of oxygen decreases by 50% at every 6 °C fall in brain temparature. As a result, DHCA allows the surgeon to work in a bloodless field without cluttering effects of multiple cannulas

If cooling is done slowly in patients, ventricular fibrillation rhythm was not observed in the heart up to 22-24 °C rectal. Prolonging the cooling time allows the brain and body to cool homogeneously. Nasopharyngeal and tympanic probes are preferred for temperature monitoring. After reaching 22-24 °C, rapid cooling is done by switching to high flow bypass. Iced bags can be placed over the carotid artery and around the cranium to provide good cooling of the brain. Hypoglycemia and hyperglycemia are avoided during the operation. The use of anesthetic agents such as long- and short-acting barbiturates slows down the brain metabolism and increases the tolerance of the brain to ischemia. Simultaneously, brain activities are monitored with EEG. The patient is placed in the trendelenburg position and deep hypothermic total circulatory arrest is initiated. Studies and clinical experience show that 45 minutes is a safe arrest period. In addition, better results are obtained when atherograde cerebral perfusion (ASP) is used.

The postoperative mortality of DHCA is between 7-15%. Postoperative care aims to reduce or eliminate factors that may worsen the neurological outcome, management of coagulopathy, early detection and treatment of low cardiac output syndromes, other organ dysfunctions such as kidney, liver, lung and intestine, and prevention of infection and sepsis.

TCA/DHCA remains a time-tested strategy for achieving a bloodless, uncluttered surgical field for complex aortic surgery operations. Newer neuromonitoring and neuroprotective methods have improved the safety margin of DHCA.

Akut koroner sendromlar ve komplikasyonları; Ekokardiyografik değerlendirme (Tam Metin)

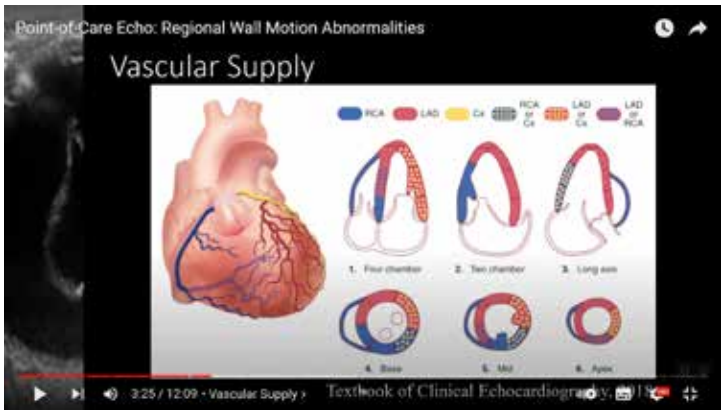
Doç. Dr. Adnan Yamanoğlu

İzmir Katip Çelebi Üniversitesi, Acil Tıp Kliniği

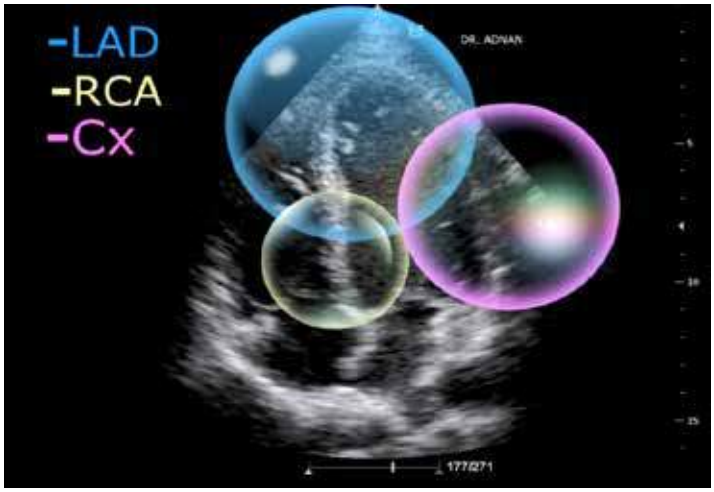
Akut korener sendromların (AKS) ekokardiyografik değerlendirilmesi iki temel amaca hizmet eder. Bunların birincisi göğüs ağrılı hastalarda ayırıcı tanıya yardımcı olarak tanıyı desteklemek, ikincisi ise AKS' ye bağlı ortaya çıkabilecek komplikasyonların tanılanmasıdır.

Aort kökünden çıkan sol ana koroner arterin sol ön inen koroner (LAD) arter dalı sol ventrikülün anterior duvarını ve interventriküler semptumun anteriorunu besler(Şekil 1). LAD okluzyonlarında bu alanlarda akut dönemlerde hipo-akinezi şeklinde duvar hareket kusuru oluşur. Sol ana korener arterin diğer dali olan circumfleks arter (Cx) ise sıklıkla sol ventrikülün lateral duvarını besler, ancak posterior duvara kadar uzanabilir. Cx okluzyonlarında bu alanlarda akut dönemlerde hipo-akinezi şeklinde duvar hareket kusuru oluşur. Aortanın sağ tarafından çıkan sağ korener arter (RCA) ise sağ ventrikülün tamamını beslerken, sol ventrikün de inferior duvarını besler, ancak posterior hatta lateral duvara kadar uzanabilen beslemeleri olabilir. RCA okluzyonlarında ise bu alanlarda akut dönemlerde hipo-akinezi şeklinde duvar hareket kusuru oluşur (Şekil2).

Şekil 1. Koroner arter sulama bölgeleri



Şekil 2. Apikal 4-boşluk görüntüde koroner sulama alanları



Ekokardiyografi ile bu alanlardaki duvar hareket kusru eş zamanlı izlenerek hastanın doğru tanılanması sağlanabilir. Özellikle elektrokard,iyografi (EKG) bulguları silik olan non-ST miyokard infarktüslerde (MI) tedaviyi yönlendirmede önemli rol oynayabilir. Ekokardiyografik değerlendirmelerde etkilen alananın tam tesbit edilebilmesi için tüm sulama alanlarının değerlendirilmesi gerekir. Bu amaçla tek bir aksdan değerlendirmek yerine parasternal uzun aks, parasternal kısa aks, apikal dört boşluk ve gerkiyorsa apikal iki ve üç boşluklardan değerlendirme yapılarak etkilen alanın genişliği tam tesbit edilmelidir. Bu şekilde ekokardiyografi şüpheli AKS tanılarını kesinleştirmede, reddetmede ya da benzer klinikle seyredebilecek pulmoner emboli gibi diğer tanılşarın konmasında etkin rol oynayabilir.

Akut korener sendromlar mekanik, elektriksel, inflamatuar, iskemik ve embolik komplikasyonlarla karşımıza çıkabilir. Bu komplikasyonlardan mekanik olan; pompa yetersizliği ve kardiyojenik şok, sol ventrikül serbest duvar rüptürü (Şekil 3) veya psödoanevrizma, ventriküler septal rüptür, akut mitral yetersizlik (Papiller adele rüptürü / Papiller adele disfonksiyonu) ve gerçek ventriküler anevrizma komplikasyonlarının tamamı için ekokardiyografi primer tanı aracıdır ve yol gösterici olur. İnflamatuar komplikasyonlardan peri-infarktüs perikardit ve dresler sendromu tanısında etkin olarak kullanılabilir. İskemik komplikasyonlardan Post-infarkt anjina (İnfarkt genişlemesi, re-infarktüs) tanısında da ekokardiyografi yine temel tanısal araç olarak kullanılabilir. Embolik komplikasyonlardan da akinetik segmentte mural trombüs oluşumu ve sistemik emboli kaynağının belirlenmesinde etkin bir tanı aracı olarak kullanılır.

Şekil 3. Post MI hemorajik perikardiyal efuzyon

Sonuç olarak ekokardiyografi yatakbaşı değerlendirme imkanı ile AKS' lerin hem tanılarında hem de birçok komplikkasyonlarının belirlenmesinde temel tanı aracı olarak kullanılabilir.

Kaynaklar

1. Cardiology/American Heart Association Task Force on Practice Guidelines (ACC/AHA/ASE Committee to Update the 1997 Guidelines for the Clinical Application of Echocardiography). Circulation 2003; 108:1146.
2. Recommendations for Cardiac Chamber Quantification by Echocardiography in Adults: An Update from the American Society of Echocardiography and the European Association of, Cardiovascular Imaging. Eur Heart J Cardiovasc Imaging. 2016;17(4):412. doi:10.1093/ehjci/jew041.
3. Esmaeilzadeh M, Parsaee M, Maleki M. The role of echocardiography in coronary artery disease and acute myocardial infarction. J Tehran Heart Cent. 2013;8(1):1-13.

HYPERGLYCEMIC EMERGENCIES

Hüseyin ERGENÇ[1]

Diabetes mellitus is a disease caused by a hereditary/acquired deficiency in insulin production by pancreas or the ineffective insulin produced. Diabetic ketoacidosis (DKA) and hyperosmolar hyperglycemic condition (HHS) are two of the most severe acute complications of diabetes (1).

In DKA and HHD diabetic patients, representing two endpoints in the spectrum of decompanse diabetes, they continue to have significant mortalities and morbidity, despite well-developed diagnostic criteria and treatment protocols. The DKA and HHS differ clinically according to the presence of ketoacidosis and generally the degree of hyperglycemia (2).

While the major finding in the DKA is often metabolic acidosis, serum glucose concentration is usually below 800 mg/DL and often within the range of 350-500 mg/DL. Together with this, serum glucose concentrations may exceed 900 mg/DL in patients with DKA in a coma, and may have increased normal or minimal in pediatric DKA patients (< 250 mg/DL).

Ketoacid build-up on HHS is very small or not at all, the serum glucose concentration generally exceeds 1000 mg/DL, plasma osmolality (Posm) can reach 380 mOsmol/kg and neurological abnormalities are often present (1,3).

A precipitating event can usually be identified in patients with DKA or HHS. The most common events are infection (often pneumonia or urinary tract infection) and discontinuation of or inadequate insulin therapy. Compromised water intake because of underlying medical conditions, particularly in older patients, may promote the development of severe dehydration and HHS. In addition, acute major diseases such as myocardial infarction, cerebrovascular event, sepsis or pancreatitis can also trigger development of DKA and HHS (2,3).

DKA develops rapidly, usually over a 24-hour period. In contrast, the symptoms of HHS develop more insidiously, with polyuria, polydipsia, and weight loss, and usually persist for a few days before hospitalization.

The earliest signs of overt hyperglycemia are polyuria, polydipsia, and weight loss. As the degree or duration of hyperglycemia progresses, neurological symptoms such as lethargy, focal signs and obtundation may develop. This can progress to coma in the later stages. Neurological symptoms are most common in HHS, while hyperventilation and abdominal pain are primarily limited to patients with DKA.

Neurological deterioration mainly occurs in patients with an effective plasma osmolality (Posm) above 320 mosmol/kg. Mental obtundation and coma are more common in HHS than DKA, usually because of a higher degree of hyperosmolality. In addition, some patients with HHS experience focal neurological signs (hemiparesis or hemianopsia) and/or seizures. Mental obtundation may occur when severe acidosis occurs in DKA patients with a lower degree of hyperosmolality. However, in diabetic patients with an effective Exposure less than 320 mosmol/kg, stupor or coma requires immediate evaluation of other causes of mental status change (4).

DKA patients may have nausea, vomiting and abdominal pain; Although more common in children, these symptoms can also occur in adults. Abdominal pain is unheard of in the HHS. The abdominal pain was associated with the severity of the metabolic acidosis, but was not correlated with the severity of hyperglycemia or dehydration(5).

Symptoms of volume reduction commonly seen in both the DKA and HHS include skin turbial reduction, dry axillae and oral mucosa, low jugular venous pressure, tachycardia and hypotension if serious.

The initial assessment of patients with hyperglycemic attacks should include assessment of heart status, vol-

ume and mental status.

The first laboratory evaluation of a patient suspected of DKA or HHS is the determination of serum glucose. In addition, electrolytes, blood urea nitrogen and plasma creatinine levels, whole blood count, urine and urine ketones; plasma osmolality, arterial blood gas and electrocardiogram should be evaluated.

Serum glucose concentration may exceed 1000 mg/dL on the HHS, but usually less than 800 mg/dL. In the DKA, it is usually within the range 350 to 500 mg/dL (6).

Three keton bodies are produced in the DKA, including asetetic acid, beta-hydroxycycycic acid acetone. Urine ketone objects can be detected by a measurement bar with nitroprussid tests, while serum ketones can be detected by direct analysis of beta-hydroxycihydride levels or by a nitroprussid test. Direct analysis of Beta-hydroxycihyhydr levels is preferred.

Patients with DKA usually present with a serum anion gap greater than 20 mEq/L [Serum anion gap calculation: Serum anion gap = Serum sodium - (serum chloride + bicarbonate)]. In patients with DKA, elevated metabolic acidosis of anionic difference is caused by accumulation of beta-hydroxybutyric and acetoacetic acids. However, the increase in anion gap is variable and is primarily determined by several factors, such as the rate and duration of ketoacid production, metabolic rate and urinary loss of ketoacids, and volume of distribution of ketoacid anions(7).

Plasma osmolality (Posm) is typically >320 mosmol/kg in patients with HHS. However, this is lower in patients with DKA (Effective Exposure Calculation: Effective Exposure= [2 x Na (mEq/L)] + [glucose (mg/dL) ÷ 18]). The Na concentration in these equations is the actual measured plasma Na concentration, not the corrected Na concentration. Na is multiplied by two to account for the osmotic contribution of anions (primarily chloride and bicarbonate) accompanying sodium. Eighteen multiplied by glucose in the equation is a factor for converting glucose units from mg/dL to mmol/L.

Most patients with DKA and HHS are mildly hyponatremic, but patients with significant osmotic diuresis may have normal or elevated serum sodium (Na) concentrations. The serum Na concentration in DKA and HHS reflects the balance between the dilution effect of water leaving the cells in response to the increase in serum osmolality induced by hyperglycemia and the increase in electrolyte-free water excretion due to osmotic diuresis induced by glucosuria (8).

The serum potassium concentration is usually normal or elevated at presentation in one-third of patients. This is because potassium shifts from the intracellular fluid to the extracellular fluid, caused by hyperosmolality and insulin deficiency. Insulin therapy displaces potassium in cells and lowers the amount of potassium. This can cause severe hypokalemia, especially in patients with normal or low serum potassium concentration. Careful follow-up and timely administration of potassium supplementation is critical (9).

DKA and HHD Diagnostic Criteria

DKA is characterized by the triad of hyperglycemia, anion gap metabolic acidosis, and ketonemia. Metabolic acidosis is often the major finding. The serum glucose concentration is usually below 800 mg/dL and often between 350 and 500 mg/dL. However, serum glucose concentrations in comatose DKA patients may exceed 900 mg/dL. In some situations, such as fasting, pregnancy, insulin therapy before coming to the emergency room, or the use of sodium-glucose co-transporter 2 (SGLT2) inhibitors, the glucose level may be slightly elevated or even normal.

In HHS, there is little or no ketoacid accumulation. The serum glucose concentration may exceed 1000 mg/dL, the plasma osmolality is greater than 320 mosmol/kg, and neurological abnormalities are often present. Most patients with HHS have an admission pH >7.30, serum bicarbonate >20 mEq/L, and serum glucose >600 mg/dL(10).

DKA and HHD Treatment

In diabetic ketoacidosis/HHD, treatment objectives are to regulate the circulation volume and tissue perfusion, bring serum glucose and ozmolality to normal limits, clean keton bodies in urine and serum, correct electrolyte balance, and define the facilitating factors in the development of metabolic decompation status.

Treatment for DKA and HHS is similar, including correction of typically present fluid and electrolyte abnormalities (hyperosmolality, hypovolemia, metabolic acidosis [in DKA] and potassium loss) and administration of insulin. The first step in the treatment of DKA or HHS is isotonic fluid infusion to expand the extracellular volume and stabilize the cardiovascular status. It also increases insulin response by lowering plasma osmolality, reducing vasoconstriction, improving perfusion and lowering stress hormone levels. The next step is to correct the potassium deficit, if any. Since potassium is osmotically as active as sodium, the osmotic effect of potassium replacement should be considered when selecting fluid replacement.

In DKA, there is an average of 6 L in HHD and an average of 9 L in fluid clearances.. The aim is to increase intra/extra vascular volume and to provide renal perfusion. In patients without cardiac problems and prone to shock, 0.9% NaCl 1000-1500 ml (or 15-20 ml/kg/hr) can be given during the first hour of treatment. While it is recommended to continue treatment with isotonic fluid in patients with low corrected sodium value, 0.45% NaCl (4-14 ml/kg/hour) can be infused if it is normal and high. It is aimed to replace half of the estimated water and sodium deficit in 12-24 hours.

All patients with medium to severe DKA with serum potassium ≥ 3.3 mEq/L should be treated with low dose intravenous insulin. If the serum potassium is below 3.3 mEq/L, insulin therapy should be delayed until potassium replacement begins and serum potassium concentration increases because insulin drives potassium into cells, worsening hypokalemia, which can trigger cardiac arrhythmias.

After an IV bolus of 0.1 IU/kg insulin, an IV infusion dose of 0.1 IU/kg/hour is recommended. The optimal rate of glucose reduction is between 50-70 mg/hr. If the desired glucose reduction is not achieved in the first hour, an additional bolus of insulin at 0.1 u/kg may be given. When plasma glucose reaches 200-250 mg/dL in diabetic Ketoacidosis or 300 in hyperosmolar hyperglycemic state, the insulin rate should be reduced to 0.05 U/kg/hr, followed by 5-10% dextrose infusion. Dextrose and insulin doses should be adjusted so that the blood glucose level is kept around 150-200 mg/dl, and the infusion should be continued until the patient's acidosis condition improves.

Adequate urine output (50 ml/hour) should be maintained for the patient before adding potassium to the infusion. 20-30 mEq/L potassium can be added to each liter of infusion fluid. If the initial potassium value is lower than normal (<3.5 mEq/l), insulin therapy should be initiated after the K level is increased. Serum potassium level should be checked at intervals of 2-4 hours and the patient should be followed up with ECG monitoring. Potassium supplementation should be continued until the patient's condition stabilizes and oral intake begins.

The role of bicarbonate in the treatment of metabolic acidosis caused by DKA is controversial. Regardless of the pH in the treatment, there is no proven benefit of bicarbonate therapy. The recommendations for patients with very low pH are as follows; In patients with pH between 6.9 and 7.0, it may be helpful to administer 50 mmol of bicarbonate in 200 ml of sterile water containing 10 mmol of KCL for two hours to maintain pH >7.0. Adult patients with pH <6.9 should be given 100 ml of sodium bicarbonate in 400 ml of sterile water (an isotonic solution). Venous pH should be evaluated every 2 hours until it reaches 7.0; If necessary, the treatment can be repeated every 2 hours. Bicarbonate therapy is not recommended in patients with pH > 7.0 (11,12).

Hypoglycemia and hypokalemia are the most common complications of DKA and HHS treatment. These complications have become much less common since low-dose intravenous (IV) insulin therapy and careful monitoring of serum potassium have been implemented.

REFERENCES

1. Kitabchi AE, Umpierrez GE, Miles JM, Fisher JN. Hyperglycemic crises in adult patients with diabetes. Diabetes Care 2009; 32:1335.
2. Kitabchi AE, Umpierrez GE, Fisher JN, et al. Thirty years of personal experience in hyperglycemic crises: diabetic ketoacidosis and hyperglycemic hyperosmolar state. J Clin Endocrinol Metab 2008; 93:1541.
3. Daugirdas JT, Kronfol NO, Tzamaloukas AH, Ing TS. Hyperosmolar coma: cellular dehydration and the serum sodium concentration. Ann Intern Med 1989; 110:855.
4. Nyenwe EA, Razavi LN, Kitabchi AE, et al. Acidosis: the prime determinant of depressed sensorium in diabetic ketoacidosis. Diabetes Care 2010; 33:1837.
5. Umpierrez G, Freire AX. Abdominal pain in patients with hyperglycemic crises. J Crit Care 2002; 17:63.
6. Kitabchi AE, Umpierrez GE, Miles JM, Fisher JN. Hyperglycemic crises in adult patients with diabetes. Diabetes Care 2009; 32:1335.
7. Smith SW, Manini AF, Szekely T, Hoffman RS. Bedside detection of urine beta-hydroxybutyrate in diagnosing metabolic acidosis. Acad Emerg Med 2008; 15:751.
8. Phillips PA, Bretherton M, Johnston CI, Gray L. Reduced osmotic thirst in healthy elderly men. Am J Physiol 1991; 261:R166.
9. Abramson E, Arky R. Diabetic acidosis with initial hypokalemia. Therapeutic implications. JAMA 1966; 196:401.
10. Szeto CC, Li KY, Ko GT, et al. Acromegaly in a woman presenting with diabetic ketoacidosis and insulin resistance. Int J Clin Pract 1997; 51:476.
11. Umpierrez GE, Jones S, Smiley D, et al. Insulin analogs versus human insulin in the treatment of patients with diabetic ketoacidosis: a randomized controlled trial. Diabetes Care 2009; 32:1164.
12. Hirsch IB, Draznin B. Transition of Patients to and from Insulin Degludec: A Clinical Challenge. J Clin Endocrinol Metab 2020; 105.

BU ÇOCUĞA BİR HALLER OLDU

Uzm.Dr.Nalan Gökçe Çelebi Yamanoğlu

T.C. SBÜ İzmir Bozyaka Eğitim Ve Araştirma Hasta

Çocuk 0 ile18 yaş aralığında; bebeklik ile ergenlik çağı arasındaki insan olarak tanımlanabilir. Çocuk acil psikiyatrik başvurularının %75 -80'i 13 yaş ve üzeridir. Duygusal ve davranışlar sorunlar; ani başlangıçlı olabildiği gibi, çeşitli psikiyatrik hastalıkların seyri sırasında da gelişebilir. Çocuklarda psikiyatrik bir durumun aciliyetini belirlemek için bazıölçütler

belirlenmiştir;

1. Çocuğun ve ailesinin güvenliğine ve ruh sağlığına yönelik tehlikenin aciliyeti ve ciddiyeti
2. Çocuğun kendisine ve çevresine karşı oluşturduğu tehlikenin aciliyeti veciddiyeti
3. Ailenin çocuğun sorunlarıyla baş etme beceri ve olanaklarınınyetersizliği

Acil psikiyatrik başvurularda değerlendirme yapılırken; empati, güven verici olmalı, suçlayıcı, yargılayıcı tavırdan kaçınmalı, mümkünse başbaşa kalınmalı, kaygılıysa en yakını ile birlikte muayeneye alınmalıdır. Ruhsal durum muayenesi yapılırken; bilinç, yönelim, algı, bellek, düşünce, konuşma, duygulanım, psikomotor yetilerde değerlendirilir.

Acil servise başvuru nedenlerine bakacak olursak en sık taşkınlık ve saldırganlık nedeniyledir. Öncelikle organik beyin sendromlarının ayırıcı tanısı yapılmalı;

- Deliryum, epilepsi, alkolzehirlenmesi,
- Madde kullanımı (amfetamin, inhalan, fensiklidin,vd)
- Endokrin hastalıklar (Diabet, Cushing, androjenler, östrojenler vd)
- Kafa travması,
- Enfeksiyon (menenjit, ensefalit)
- Kafa içi tümörler, damarsal bozukluklar, dejeneratifhastalıklar
- İlaç zehirlenmeleri, kırıklar, yumuşak doku ve iç organ yaralanmaları açısından hasta araştırılmalıdır.

Ruhsal bozukluklar arasında taşkınlık ve saldırganlığa sebep olanlar; en çok psikotik

bozukluklar (psikoz,şizofreni), duygudurum bozuklukları (majör depresif bozukluk, bipolar bozukluk), zeka geriliği, yaygın gelişimsel bozukluklar, davranım bozukluğu, karşıt olma, karşı gelme bozukluğu, disosiyatif bozukluklar, geç dönem ergenlerde kişilik bozuklukları sayılabilir.

Acil müdahalede; en çok antipsikotikler; Haloperidol (Nörodol); 12 yaşından küçük çocuklarda 1-2,5mg/kg, büyüklerde 2,5-5 mg/kg oral ya da intramüsküler, Risperidon

(Risperdal) 0,5-1 mg oral, Difenhidramin (Benadryl); 25-50 mg oral ya da intramüsküler kullanılabilir.

Acil servis başvurularının psikiyatrik nedenlerinden en sık bir diğeride özkıyım girişimidir. Ergenlerde % 5-8 oranında görülmektedir ve Türkiye'de son 30 yılda önemli derecede artmıştır. Özkıyım girişimleri sıklık olarak

kızlarda daha fazla görülürken başarıya ulaşan girişimler erkeklerde daha yüksek orandadır. Özkıyım girişimi değerlendirilirken niyetin değerlendirilmesi önemlidir. Girişimin planlı mı olduğu, yöntemin ne kadar ölümcül olduğu, kendisine kurtarılma şansı tanıyıp tanımadığına bakılmalıdır.

Yine acil başvurularının bir diğer nedeni de psikozdur ve öncelikle tıbbi ve biyolojik etken ler açısından araştırılmalıdır.

- Menenjit,ensefalit,serebrovasküler olaylar,epileptik nöbetler,MSSnin
- Primer ya da metastatiktümörleri,
- Hiperglisemi-Hipoglisemi
- Tiroidbozuklukları,
- Solunum yollarına bağlı hipoksi,
- Porfiri ve Wilson hastalığı ile ayırıcı tanıyapılmalıdır.

Psikozun psikiyatrik nedenleri arasında;

- Şizofreni, şizofreniform bozukluk,
- Kısa psikotikbozukluk,
- Psikotik özellikli duygudurumbozukluğu,
- Şizoafektif bozukluk, madde kullanımına bağlı psikotikbozukluk,
- Borderline ya da şizotipal kişilik bozukluklarısayılabilir.

Akut Stres Bozukluğu (ASB); Savaş içinde yaşayan, şiddete tanık olan, yaralanma ya da ölüm tehtidiyle karşılaşan çocuklarda

Travma Sonrası Stres Bozukluğu (TSSB) ; Akut stres tepkisi belirtilerinin 1 aydan uzun sürmesidir. TSSB tanısı için; kişi gerçek bir ölüm ya da ölüm tehtidi,ağır yaralanma, kendisinin ya da başkalarının fiziksel bütünlüğünü tehtid eden bir olay yaşamış, tanık olmuş

• ya da yüzyüze kalmıştır. Tedavi öncelikle psikoterapidir. Acil servis hekimi psikoterapik sürecin ilk halkasını oluşturabilir. Akut durumu yatıştırmak için antipsikotikler oral ya da enjektabl formda kullanılabilir. Aşırı uyarılma, dürtüsellik, anksiyete belirtileri ve uyku sorunlarında beta blokerler kullanılabilir. Genelde tüm belirtiler için; SSRI grubu ya da trisiklik antidepresanlarkullanılmaktadır.

Somatoform ve disosiyatif bozukluklar; Konversiyon bozukluğu, Somatizasyon bozukluğu, Somatoform ağrı bozukluğu, Hipokondriazis, Beden dismorfik bozukluğu olarak sıralanabilir. Beslenme Bozuklukları; Organik tip büyüme gelişme geriliği, organik olmayan büyüme gelişme geriliği ve karma tip olarak sınıflandırılabilir. Yine acil servis başvurularında ergenlerde ; Anoreksia nevroza, Bulumia nevroza sayılabilir. Morbidite hatta mortalite riski nedeniyle çoğunlukla yatarak tedavi edilmesi gerekir.

Alkol ve madde kullanımıyla ilgili başvurularda ise hasta solunum depresyonu, nörolojik ve kardiyak anormalliklerle başvurabildiği gibi yoksunluk belirtileri veya deliryum, psikoz tablosuyla da getirilebilir.

Acil servise başvurularda muhakkak akılda tutulması gereken ve araştırılması gereken bir

nedende istismardır. Fiziksel, duygusal ve cinsel olabilir. Fiziksel, duygusal ve cinsel olabilir. Enürez, enkorporez, yeme bozuklukları, korkular, kompulsif davranışlar, okul başarısında

düşme, evde bulunmaktan kaçınma, uyku bozuklukları, aşırı banyo yapma, nedensiz ağlama, çökkünlük, özkıyım girişimi, saldırganlık, bakımsızlık, sosyal becerilerde bozukluk, yaşından beklenmeyecek şekilde bedeninin farkında olma, kaynağı belli olmayan para, yeni giysi ya da hediyeler edinme gibi durumlar söz konusu olduğunda muhakkak istismar araştırılmalıdır.

TAŞİARİTMİ YÖNETİMİNİ EN KISA NASIL ANLATILIR?

Doç.Dr. Yücel YÜZBAŞIOĞLU

Dakikada 100 atım veya daha fazla ventrikül hızına sahip anormal kalp ritimleri olarak tanımlanan taşiaritmiler, çeşitli patolojilerden kaynaklanabilir ve sıklıkla semptomatiktir. Artmış otomatisite, reentry ve tetikleme mekanizmaları yer alır. Taşiaritmi ile ilgili belirti ve semptomlar en yaygın olarak çarpıntı veya göğüs rahatsızlığını içerir, ancak aynı zamanda şok, hipotansiyon, kalp yetmezliği (HF), nefes darlığı ve/veya azalmış bilinç düzeyini içerebilir. Dar bir QRS kompleksi (<120 ms), normal His-Purkinje sistemi aracılığıyla ventriküllerin hızlı aktivasyonunu yansıtır; bu da, aritminin His demetinin üstünden veya içinden kaynaklandığını gösterir. Taşikardi mekanizması sinüs düğümü, atriyum, AV düğümü, His demeti veya bu bölgelerin bazı kombinasyonlarında olabilir.

Dar QRS kompleksli taşikardi tipleri

Sinüs taşikardisi, AV nodal reentrant taşikardi (AVNRT), AV reentrant (veya resiprokasyonlu) taşikardi (AVRT), Atriyal taşikardi, Sinoatriyal nodal reentrant taşikardi (SANRT), İntraatriyal reentrant taşikardi (IART), Kavşak ektopik taşikardi, Paroksismal olmayan kavşak taşikardisi, Atriyal fibrilasyon (AF), Atriyal çarpıntı, Multifokal AT

KlinikBulgular

Çarpıntı, Senkop veya presenkop, Diyaforez, Göğüs ağrısı, Nefes darlığı, Baş dönmesi veya baş dönmesi sayılabilir.

Tanı

Dar QRS kompleksli taşikardi tanısından genellikle çarpıntısı olan bir hastada fizik muayenede nabız 100 vuru/dakika'dan fazla olduğunda şüphelenilir. Dar ve geniş QRS kompleksli taşikardi arasındaki ayrım, yalnızca 120 ms'den kısa süreli dar QRS kompleksleri ile birlikte dakikada 100 vurudan daha yüksek bir kalp hızı gösteren bir yüzey EKG›si gerektirir.

Değerlendirme

Hastanın hemodinamik stabilite (veya instabilite) semptom ve bulguları açısından değerlendirilmesi ve Mevcut taşikardi tipine ilişkin ipuçları için hastanın EKG'sinin değerlendirilmesini içerir

EKG'nin ritmin düzenliliği açısından değerlendirilmesi Düzenli – Sinüs taşikardisi, AV nodal reentrant taşikardi, AV resiprokasyonlu taşikardi, atriyal flutter (genellikle), atriyal taşikardi (AT). Düzensiz – AF, çok odaklı AT.sıralanabilir

Tedavi

Tanı konulduktan sonra hastanın stabil unstabil olması değerlendirilmeli Aritmileri nedeniyle hemodinamik olarak stabil olmayan AVRT'li hastalar için acil DC kardiyoversiyonu önerilir Stabil hastalarda nedenin saptanması ve Vagal manevralar etkisiz ise, bir AV nodal bloke edici ajanlar ile farmakolojik tedavi başlatılmalıdır. Adenozin, AV bloğa neden olur ve reentrant SVT'lerin %90'nından fazlasını normale döndürür

GENİŞ QRS KOMPLEKSİ TAŞİARİTMİLER

Düzenli geniş QRS karmaşık taşiaritmiler

Monomorfik ventriküler taşikardi, Anormal iletim, altta yatan iletim gecikmesi, aksesuar yol üzerinden iletim veya paced ventriküler yanıt ile birlikte supraventriküler taşikardi, Bazı antiaritmik ilaçlar alan veya önemli elektrolit anormallikleri olan bir hastada supraventriküler taşikardi, Antidromik AVRT sayılabilir.

Geniş QRS kompleksli taşikardinin en endişe verici potansiyel nedeni VT'dir ve hastaların çoğunda aksi kanıtlanana kadar aritminin VT olduğu varsayılmalıdır. Yanıt vermeyen veya nabzı olmayan bir hasta, standart ileri kardiyak yaşam desteği (ACLS) algoritmalarına göre tedavi edilmelidir. Stabil olmayan ancak bilinci yerinde olan bir hastada, mümkün olduğunda uygun sedasyon ile hemen senkronize kardiyoversiyon önerilir. Antidromik AVRT Ritmin antidromik AVRT olduğu kesin olarak biliniyorsa, o zaman adenosin , verapamil veya IV beta blokerler düşünülebilir, ancak SVT sonlandırıldıktan sonra atrial fibrilasyon (AF) gelişirse hızlı bir ventriküler hız olmadığından emin olmak için izlemeye devam edilmelidir. Düzenli geniş kompleks taşikardinin paroksismal SVT olduğundan şüpheleniliyorsa, farmakolojik tedavilere başlamadan önce vagal manevralar düşünülebilir. Unstabil hastalarda ise acil kardiyoversiyon uygulanmalıdır.

Düzensiz geniş QRS karmaşık taşiaritmiler

Torsades de pointes dahil olmak üzere polimorfik VT,Aberan iletim, bir aksesuar yol üzerinde antegrad iletim (örn. önceden uyarılmış AF) veya altta yatan iletim gecikmesi (örn. sağ dal bloklu AF) ile düzensiz dar kompleks taşikardileri içerir. Polimorfik VT'si ve normal başlangıç QT aralığı olan hastalarda en olası neden miyokardiyal iskemidir. Hemodinamik olarak stabil olmayan hastada hızlı defibrilasyon. IV amiodaron tekrarlayan bir epizodu önleyebilir. Acil koroner anjiyografi ve olası revaskülarizasyon ihtiyacı unutulmamalıdır. Sürekli, hemodinamik olarak kararsız polimorfik VT için acil defibrilasyon önerilir. Uzun bir QT aralığı (torsades de pointes) ile ilişkili polimorfik VT'nin tedavisi için magnezyum düşünülebilir(Class 2B). Normal bir QT aralığı ile polimorfik VT tedavisinde rutin magnezyum kullanımını önerilmediği unutlmamalıdır.

Kaynaklar

1. Bağlantı MS. Klinik uygulama. Supraventriküler taşikardinin değerlendirilmesi ve ilk tedavisi. N İngilizce J Med 2012; 367:1438.

2. Tintinalli's Emergency Medicine 7th Edition, Bölüm 129 sayfa 137.

3. Sayfa RL, Joglar JA, Caldwell MA, et al. 2015 Supraventriküler Taşikardili Yetişkin Hastaların Tedavisine İlişkin ACC/AHA/HRS Kılavuzu: American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society'nin Raporu. J Am Coll Cardiol 2016; 67:e27.

4. Brugada J, Katritsis DG, Arbelo E ve ark. 2019 Avrupa Kardiyoloji Derneği'nin (ESC) supraventriküler taşikardisi olan hastaların yönetimi için Görev Grubu supraventriküler taşikardi hastalarının tedavisi için ESC Kılavuzları. Avrupa Kalp J 2020; 41:655.

5. Kalbfleisch SJ, el-Atassi R, Calkins H, et al. 12 derivasyonlu elektrokardiyogram kullanılarak paroksismal dar QRS kompleks taşikardilerin ayırt edilmesi. J Am Coll Cardiol 1993; 21:85.

Bone marrow edema in the knee after minor trauma: a case report

Mehmet Tahir Gökdemir[1] Gül Şahika Gökdemir[2]

[1]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin
[2]Diyarbakir Children's Hospital, Physiology, Diyarbakir

ABSTRACT

Background and aim: A 52-year-old male patient admitted to the emergency department with the complaint of left knee pain after minor trauma. Bone marrow edema (BME) is characterized by pain and increased interstitial fluid in the bone marrow, with or without obvious cause. It may be present in cases that present as a self-limiting lesion that resolves within months without specifying any underlying cause and no sequela can be detected. The purpose of presenting this case is to raise awareness that persistent pain after minor trauma may be caused by BME.

Case: A 52-year-old male patient admitted to the emergency department with the complaint of left knee pain. The patient initially had moderate pain when his left knee hit the edge of the wooden table while getting up from the dinner table. He did not care much about this pain, followed the periods of decrease and increase in the severity of pain. As this network, which lasted for about 3 months, got worse, the patient admitted to the emergency depatment(ED). In the clinical examination, there was no redness and swelling on inspection, but there was pain around the medial condyle of the left knee on palpation. The patient is receives monoclonal antibody Ig E treatment once a month for chronic urticaria and had a history of smoking. In addition, he did not have any chronic diseases. T2 magnetic resonance imaging (MRI) revealed diffuse BME in the adjacent trabecular bone in the medial femoral condyle (MFC) and edema in the medial deep surrounding tissues. Treatment as follows: 1. Rest, 2. controlled weight therapy continued under the guidance of a physiotherapy, 3. acetaminophen 500 mg three times daily for pain control, 4. transcutaneous electrical nerve stimulation, 5. hip abductors and a physical rehabilitation program consisting of external rotators, quadriceps muscle, and harstring muscle strengthening; and 6. Bisphosphonate therapy: Boniva 150 mg 1 tablet daily.

Conclusion: In conclusion, metabolic osteoporotic factors, especially trauma, may play a role in the formation of BME. Although there are limited number of reviv and case report studies on BME in the literature, there are not enough comprehensive studies. We hope that our case will contribute to the literature in this context.

Key words: Bone marrow edema, knee, minor trauma

INTRODUCTİON

Bone marrow edema (BME) is characterized by pain and increased interstitial fluid in the bone marrow, with or without obvious cause [1]. It may be present in cases that present as a self-limiting lesion that resolves within months without specifying any underlying cause and no sequela can be detected. BME can often be involved in the hips, knees, ankles, and feet [2]. In the case of an underlying systemic disease, recurrent clinical presentation and migratory pain are usually observed. Bone marrow lesions of any cause occur, particularly in blood flow or impaired vascular drainage. This results in increased intraosseous pressure and decreased perfusion resulting in hypoxia. The change in bone marrow is assumed to be due to a local edema, but in reality there are limited studies confirming this [3]. Except for a limited number of case reports, we have seen that there are no comprehensive studies on this subject. The purpose of presenting this case is to raise awareness that persistent pain after minor trauma may be caused by BME.

CASE REPORT

A 52-year-old male patient admitted to the emergency department with the complaint of left knee pain. The patient initially had moderate pain when his left knee hit the edge of the wooden table while getting up from the dinner table. He did not care much about this pain, followed the periods of decrease and increase in the severity of pain. As this network, which lasted for about 3 months, got worse, the patient admitted to the emergency depatment(ED). In the clinical examination, there was no redness and swelling on inspection, but there was pain around the medial condyle of the left knee on palpation. The patient is receives monoclonal antibody Ig E treatment once a month for chronic urticaria and had a history of smoking. In addition, he did not have any chronic diseases. He was a physically fit person and was working as a health professional. The patient's height was 172 cm, weight 82 kg and body mass index 27,7. Vital signs; Systolic blood pressure was 115, diastolic blood pressure was 80 mm Hg, pulse rate was 82/min, fever was 37,3. It was noted that the left knee extension, flexion restriction and inversion-eversion movements were painful. No pathological finding were observed on two-way plain radiographs and computerized tomography (CT). T2 magnetic resonance imaging (MRI) revealed diffuse BME in the adjacent trabecular bone in the medial femoral condyle (MFC) and edema in the medial deep surrounding tissues. There were also no signs of synovial reaction, joint effusion, and articular cartilage damage in the knee (Figure 1). Bone density was within normal limits in bone mineral density (BMD) examination with dual energy radiography absorptiometry (DEXA). Laboratory studies measured normal serum calcium: 4.9 mg/dL, serum phosphate 3.5 mg/dL, 25-dihydroxyvitamin D 26 ng/mL (normal range 25-45 ng/mL),high-sensitivity C-reactive protein (Hs CRP): 13 mg/dl, and ferritin was 143 ng/Ml. In the hemogram results, biochemistry examination, hepatitis marker tests and anti-HIV result of the patient were normal. Tumor markers such as serum protein electrophoresis, prostate-specific antigen, carcinoembryonic antigen, CA 19-9, alpha-fetoprotein, beta-2-microglobulin were within normal limits.

A diagnosis of BME was made based on clinical and radiological findings. Treatment consisted of reducing pain, resting the affected side, and gradual exercise and weight application on the affected knee. We planned the details of the treatment as follows: 1. Rest, 2. controlled weight therapy continued under the guidance of a physiotherapist: partial weight to the left lower extremity with crutch gait and left knee range of motion exercises to improve walking, 3. acetaminophen 500 mg three times daily for pain control, 4. transcutaneous electrical nerve stimulation, 5. hip abductors and a physical rehabilitation program consisting of external rotators, quadriceps muscle, and harstring muscle strengthening; and 6. Bisphosphonate therapy: Boniva 150 mg 1 tablet daily. In our case, there was a gradual decrease in the symptoms in the first 3 months and the patient started to walk moderately straight in 6 months. At the last clinical examination, he had no complaints such as pain and tenderness. However, he still complained of mild pain when climbing stairs and fast walking. Conservative treatment was continued and the complaints completely resolved in the seventh month. Radiographic examination was planned during follow-up. Knee movements were complete and painless. Radiological improvement was observed in the patient's left knee control MR controls (Figure 2). He did not have any complaints in the next six months follow-up. Informed consent was obtained from the patient and his family for the publication of this case report.

DISCUSSION

We present a 52-year-old male patient with left knee pain that gradually increased for about 3 months and was diagnosed with BME. BME is characterized by painful bone edema and inflammation associated with a variety of conditions[3,4,5]. BME cases with hypothyroidism and carbamazepine use history have been reported in previous studies [6,7]. In another case report, BME associated with pain in both feet and a compression fracture in one heel bone was reported after everolimus use [8]. Pimenta et al. presented a case of bone marrow edema in the knee accompanied by regional migratory osteoporosis not associated with trauma or other events [2]. In our case, there was a history of minor trauma to the left knee, and he had no known features other than being treated with monoclonal antibody Ig E due to chronic urticaria and smoking. He hit his left knee while getting up from the

dinner table, it was severe pain at first, then it subsided. However, after about 15 days, there was an increase in knee pain. The pain progressed with an increase after walking. Complaints of intermittent relief and aggravation of pain with movement continued for about 3 months. Usually, plain radiographs or CT do not show sufficient findings for the diagnosis of BME. In conditions such as localized osteoporosis, osteomyelitis, or transient osteoporosis of the hip, there may be bone findings on CT or radiograph corresponding to BME. It may be accompanied by acute trauma, repetitive overload, and a fracture line that is often initially undetectable. In some cases, microfractures that are not visible on MRI could be accompanied by bone edema. In conclusion, MRI imaging is a good option for the diagnosis of BME. Initially, radiography was taken, then CT was taken, but no finding was observed in both radiological examinations. Later, MRI was taken and our case was diagnosed with anamnesis, clinical examination and MRI imaging. These injuries are most common on the medial femoral condyle, but can also be found on the lateral femoral condyle or tibial plateau. Our case also had a history of trauma to the medial femoral condyle and the localization was painful on palpation. Initially, the edema seen on MRI was thought to be due to the replacement of normal fatty bone marrow with a more water-rich material, but only a few studies have confirmed these findings at the microscopic examination. Studies reported that lymphocyte infiltrates, fibrosis, increased vascularization and decreased bone mineralization are the main factors in the development of BME[1]. There is more than one mechanism depending on the clinical diagnosis and there may be a spectrum where these findings coexist [9]. As a result, for whatever reason, edema usually develops in the bone marrow and a gradual increase in pain occurs. Although our case had a mild trauma history, there was no bone fracture image. Our case did not have any metabolic or chronic disease except smoking and IgE monoclonal antibody treatment history. Considering that smoking or IgE monoclonal antibody therapy is a low probability based on the available evidence, it is possible that knee trauma may have caused BME in our case.

Although treatment of BMEs varies according to etiology, bisphosphonates for increased bone resorption and remodeling have been proposed as a treatment for chronic BME [10]. Rolvien et al. suggested that bisphosphonates is highly effective in the treatment of patients with primary bone marrow edema [11]. In a study, a single subcutaneous dose of denosumab (60 mg) administered after weekly vitamin D treatment in patients with painful BME resulted in improvement of MRI findings in 50% of patients [2]. Oral non-steroidal anti-inflammatory drug was started in the patient with mildly increased Hs-CRP. In addition, a tablet containing alendronate sodium and vitamin D3, alefort 70 mg/2800 IU, was given once a day. Rest, planned weight application and other physiotherapy methods were planned for the patient. After about 3 months, the patient started to perform a slow walking function, and at 6 months he started to walk at a moderate level.

In conclusion, metabolic osteoporotic factors, especially trauma, may play a role in the formation of BME. The physiopathological and clinical process may vary according to the etiological factor. The basis of treatment is rest and resolution of inflammation. Although there are limited number of reviv and case report studies on BME in the literature, there are not enough comprehensive studies. We hope that our case will contribute to the literature in this context.

REFERENCES

1. Akhavan S, Martinkovich SC, Kasik C, DeMeo PJ. Bone Marrow Edema, Clinical Significance, and Treatment Options: A Review. Am Acad Orthop Surg 2020;28: e888-e899. DOI: 10.5435/JAAOS-D-20-00142

2. Pimenta T, Parada F, Rocha JA. Bone Marrow Edema: A Case of Regional Migratory Osteoporosis. Am J Phys Med Rehabil. 2020;99(5):e60-e63. doi: 10.1097/PHM.0000000000001210.

3. Tarantino U, Greggi C, Cariati I, Caldora P, Capanna R, Capone A.et al. Bone Marrow Edema: Overview of Etiology and Treatment Strategies. J Bone Joint Surg Am. 2022;104(2):189-200. doi: 10.2106/JBJS.21.00300.

4. Eriksen EF, Ringe JD. Bone marrow lesions: A universal bone response to injury? Rheumatol Int 2012; 32:575-

584.

5.Zhang Y, Qi H, Zhang Y, Wang J, Xue J. Vertebral bone marrow edema in magnetic resonance imaging correlates with bone healing histomorphometry in (sub)acute osteoporotic vertebral compression fracture. European Spine Journal 2021:30 (9):2708-2717. doi: 10.1007/s00586-021-06814-3.

6.Dhaliwal J, McConnell JS, Greer T. Bilateral transient osteoporosis of the hip in a 20-year-old man. BMJ Case Reports. 2014.

7.Iannò B, De Gori M, Familiari F, Pugliese T, Gasparini G. Transient osteoporosis of the hip with a contralateral delayed involvement: a case report. Clin Cases Miner Bone Metab. 2017; 14: 83-6.

8. McDevitt RL, Quinlan C, Hersberger K,Sahai V. Bone marrow edema associated with everolimus. Am J Health Syst Pharm. 2018;75(1):e23-e27. doi: 10.2146/ajhp170269.

9.Taljanovic MS, Graham AR, Benjamin JB, Gmitro AF, Krupinski EA, Schwartz SA et al. Bone marrow edema pattern in advanced hip osteoarthritis: Quantitative assessment with magnetic resonance imaging and correlation with clinical examination, radiographic findings, and histopathology. Skeletal Radiol 2008;37: 423-431.

10.Ringe JD, Dorst A, Faber H.Effective and rapid treatment of painful localized transient osteoporosis (bone marrow edema) with intravenous ibandronate. Osteoporos Int 2005; 16:2063-2068.

Prehospital Resuscitation Updates

Gülşah Çıkrıkçı Işık

This section will describe what is new at the prehospital period of resuscitation. We can summarize the issues at three titles as medications, chest compression devices and blood products.

Medications:

Epinephrine is the corner stone of resuscitation protocols. It is the first line therapy both at shockable and non-shockable arrest rhythms. But it also has some side effects; it might trigger lethal dysrhythmias, increase oxygen consumption of myocardium and might increase the risk of thrombosis and cerebral ischemia. Despite guidelines recommended the use of epinephrine at every 3-5 minutes, its impact on survival is unclear. According to a study they compared the survival rates after single dose and conventional multidose epinephrine and they find in spite of the lower ROSC rates at single dose, survival to hospital discharge rates were similar between the groups [1].

Second drug is calcium. Calcium has vasopressor and inotropic effects and researchers wonder as if it will effect ROSC after arrest. Older studies since 1985 showed there was no effect of calcium on this way but there was randomized controlled study. At a study from Denmark they gave 5 mmol CaCl after first and if remain arrest after second dose epinephrine at study group and normal saline to control group. And because interim results showed no improvement and higher side effects such as hypercalcemia this study stopped early [2].

Chest compression devices:

Those devices became very popular at last decade because of some of their advantages like ensuring continuous, high quality chest compression during transport with minimal hands-off time and constant depth and rate of compression. What about the outcomes of their use? This study showed no difference in prehospital ROSC rates among adult non-traumatic cardiac arrest patients when comparing mechanical-assisted and manual-only CPR [3]. Independent variables suggests that prehospital cardiac arrest patients with a witnessed arrest or an initial rhythm that is shockable have a higher likelihood of attaining ROSC. Even there was a study about the poor neurological outcome and survival to discharge rates with chest compression devices [4]. This might be due to time for initiation of CPR is longer at chest compression devices. Also there were studies about the compression only CPR survival rates were not inferior to standard CPR [5]. So simple might be the best…

Blood products:

At the last few years prehospital blood transfusion became a trend topic and there were many studies on this issue. PAMPER trial showed patients receiving prehospital RBC+plasma had the greatest mortality benefit and crystalloid only had the worst survival at 24 hours and 30 days period [6]. But this topic is still controversial. RePHILL trial investigated whether use of packed red blood cells (PRBC) and lyophilised plasma (LyoPlas) was superior to use of 0·9% sodium chloride for improving tissue perfusion and reducing mortality in trauma-related haemorrhagic shock [7]. Either up to two units each of PRBC and LyoPlas or up to 1 L of 0·9% sodium chloride administered through the intravenous or intraosseous route and trial did not show prehospital blood transfusion superior to saline transfusion at trauma patients with hemorrhagic shock. Further research is required to identify the characteristics of patients who might benefit from prehospital transfusion and to identify the optimal outcomes for transfusion trials in major trauma.

If blood transfusion going to be started prehospital period there are some important points to be considered. First is blood samples might be taken for crossmatch before transfusion because rh analysis might be very

difficult if Rh + blood transfused to Rh – patient [8]. Also when to start transfusion is still a question. There are many predictors. Monitoring blood pressure might be a good predictor but there are some limitations of BP monitoring. First environmental factors like cold and trauma related factors like amputation might affect our monitoring. Also target BP changed at guidelines. In past target was systolic blood pressure as low as 80 mmHg for popping the cloth but now it is recommended a SBP range of 90-110 mmHg. So vital sings alone are not reliable enough. Lactate might be helpful, if it is higher than >3 mEq/L. But it takes longer time for lactate to increase and also clearance; might be a predictor for prolonged transfer times. For decision of starting massive transfusion protocol fluids administered and systolic blood pressure had the highest reported sensitivity (100%) and specificity (89%) and amongst scoring systems the Shock Index and Modified Shock Index had the highest reported sensitivity (96%) [9].

1. Ashburn NP, Beaver BP, Snavely AC, et al. One and Done Epinephrine in Out-of-Hospital Cardiac Arrest? Outcomes in a Multiagency United States Study [published online ahead of print, 2022 Sep 26]. Prehosp Emerg Care. 2022;1-7. doi:10.1080/10903127.2022.2120135

2. Vallentin MF, Granfeldt A, Meilandt C, et al. Effect of Intravenous or Intraosseous Calcium vs Saline on Return of Spontaneous Circulation in Adults With Out-of-Hospital Cardiac Arrest: A Randomized Clinical Trial. JAMA. 2021;326(22):2268-2276. doi:10.1001/jama.2021.20929

3. Mastenbrook J, Redinger KE, Vos D, Dickson C. Retrospective Comparison of Prehospital Sustained Return of Spontaneous Circulation (ROSC) Rates Within a Single Basic Life Support Jurisdiction Using Manual vs Lund University Cardiac Assist System (LUCAS-2) Mechanical Cardiopulmonary Resuscitation. Cureus. 2022;14(6):e26131. Published 2022 Jun 20. doi:10.7759/cureus.26131

4. Min C, Lee DE, Ryoo HW, et al. Neurologic outcomes of prehospital mechanical chest compression device use during transportation of out-of-hospital cardiac arrest patients: a multicenter observational study [published online ahead of print, 2022 Aug 31]. Clin Exp Emerg Med. 2022;10.15441/ceem.21.142. doi:10.15441/ceem.21.142

5. Jerkeman M, Lundgren P, Omerovic E, et al. Association between type of bystander cardiopulmonary resuscitation and survival in out-of-hospital cardiac arrest: A machine learning study. Resusc Plus. 2022;10:100245. Published 2022 Jun 14. doi:10.1016/j.resplu.2022.100245

6. Guyette FX, Sperry JL, Peitzman AB, et al. Prehospital Blood Product and Crystalloid Resuscitation in the Severely Injured Patient: A Secondary Analysis of the Prehospital Air Medical Plasma Trial. Ann Surg. 2021;273(2):358-364. doi:10.1097/SLA.0000000000003324

7. Crombie N, Doughty HA, Bishop JRB, et al. Resuscitation with blood products in patients with trauma-related haemorrhagic shock receiving prehospital care (RePHILL): a multicentre, open-label, randomised, controlled, phase 3 trial. Lancet Haematol. 2022;9(4):e250-e261. doi:10.1016/S2352-3026(22)00040-0

8. Yazer MH, Beckett A, Corley J, et al. Tips, tricks, and thoughts on the future of prehospital blood transfusions. Transfusion. 2022;62 Suppl 1:S224-S230. doi:10.1111/trf.16955

9. Yin G, Radulovic N, O'Neill M, Lightfoot D, Nolan B. Predictors of transfusion in trauma and their utility in the prehospital environment: a scoping review [published online ahead of print, 2022 Sep 6]. Prehosp Emerg Care. 2022;1-25. doi:10.1080/10903127.2022.2120935

Acil'de Polifarmasi Yönetimi

Sümeyye Çakmak[1]

[1] İstanbul Bakırköy Dr. Sadi Konuk Eğitim ve Araştırma Hastanesi Acil Tıp Kliniği

Tanım: Bir hastanın birden fazla ilaç kullanımı polifarmasi olarak adlandırılmakta olup minimum sayı tartışmalıdır ve 5 ila 10 arasında değişmektedir.[1]

Uygun olmayan çoklu ilaç kullanımı kavramı ise polifarmasiden farklı olarak, birden fazla ilacın uygunsuz şekilde endikasyon bulunmadan ve kanıta dayanmadan kullanılması olarak nitelendirilmektedir.

Uygun çoklu ilaç kullanımı uygun endikasyonla ilaçlar optimize edilerek ve kanıta dayalı reçetelenmiş ilaçların kullanımı olarak tanımlanmaktadır.[2]

Epidemiyoloji: Yaşlı hastalarda morbiditenin artmasıyla birlikte daha sık karşılaşılmaktadır. Amerika Birleşik Devletleri'nde 65 yaş üstü hastalarda 5 ve üzeri ilaç kullanım oranı %50 olaraktespit edilmiştir.[3] Onkolojihastalarındabuoran%84'ekadarçıkmaktaolup,10veüzeriilaçkullanımı ise %43 olarak tespitedilmiştir.[4]

Yaştan bağımsız olarak çoklu ilaç kullanımı yan etki ve hastaneye yatış riskinde artışla ilişkilendirilmiş.[5] Ancak yaşlılar ilaç yan etkileri bakımından daha fazla risk altındadır. Zira yaşlılarda genel popülasyona göre daha fazla ilaç kullanımı mevcuttur. Ayrıca yaşlanma ile birlikte oluşan fizyolojik değişiklikler (mide asit sekresyonunda, mide sıvısı miktarında, mide kan akımında, mide-bağırsak motilitesinde, mide boşaltım hızında, tükürük salgısında, deri turgorundaazalma)ilaçlarınfarmakokinetiğinietkiler.Ekolarakgeriatriksendromlarınvarlığı da (düşme, kognitif problemler, beslenme bozuklukları, inkontinans) yaşlılarda polifarmasinin sık görülmesebeplerindendir.

Polifarmasiye neden olan faktörler aşağıda sıralanmıştır;

1. Multiple komorbidite: Morbiditenin artmasıyla kullanılan ilaç sayısı daartmaktadır.
2. Multiplereçete:Yaslılardamevcutilaçrejimininöngörülmeyenbiretkisinitelafietmek için yeni bir ilacın yazılmasına **"reçete kaskadı"** denilmektedir. Bu durum çok sayıda ilaç reçetelenmesine sebepolmaktadır.
3. Hasta ile ilişkili nedenler: Bilişsel sorunlar, fonksiyonel yetersizlik, yeti kayıpları, eğitim düzeyi, reçetesiz ilaç kullanımı, bitkisel tedavilerin hekime haber vermeden ve bilinçsiz kullanımı, yaşlının birden çok hekimegitmesi.
4. Bakımveren ve aile üyeleri ile ilgili faktörler: Yaşlı için çok sayıda ilaç reçete edilmesinin onun sağlığı ile daha yakından ilgilenmek anlamına geldiği algısı, farklı semptomlar için yaşlıya çok sayıda farklı ilaç vermek, önceden reçete edilmiş ilaçların hasta ya da yakını tarafından tekrar reçete edilmesinin istenilmesi, tedbir olarak çok sayıdailacınreçeteettirilerekevdedepolanmasıvehekimönerisiolmadankullanılması
5. Sağlık profesyonelleri ile ilgili faktörler: Reçete kaskadı ve semptomatik tedavi için hayati öneme sahip olmayan çok sayıda ilaç reçete edilmesi, geriatrik sendrom tablolarının net ve açık bir şekilde okunamaması, iyatrojeniktablolar.

Uygunsuz İlaç Kullanımı (UİK)

Çoksayıdailaçkullanımıherzamanuygunsuzdeğildir.Bununlabirlikteilaçsayısınınfazlalığı yan etki için bağımsız risk faktörüdür.[6]

UİK'i azaltmak için farklı ülkelerde çok sayıda kriter çalışmaları yapılmıştır. Bunlardan en fazla atıf alan BEERS Kriterleri 7 ve STOPP Kriterleri8'dir.

Yaşlılardaolasıuygunsuzilaçkullanımıdurumunuönlemekamacıyla,30yılayakınbirsüredir kullanılmakta olan BEERS kriterleri 2012 yılında Amerikan Geriatri Derneği tarafından güncellenmeye başlanmış ve son olarak 2019'da güncellenmiştir.[9] İlaçlar, yaşlılardapotansiyel olarak uygun olmayanlar, kaçınılması gerekenler, dikkatli kullanılması gerekenler, ilaç-ilaç etkileşimleri ve böbrek fonksiyonuna dayalı ilaç dozu ayarlaması gerekenler şeklinde sınıflandırılmıştır.

STOPP kriterleri ise ilk olarak 2008 yılında yayınlanmış olup en son güncelleme 2015 yılında yapılmıştır. [7]

Ülkemizde, Akademik Geriatri Derneği Akılcı İlaç Çalışma Grubu tarafından Türkiye Yaşlıda Uygunsuz İlaç Kullanım Kriterleri oluşturulmuştur.[9]

Sonuç

- Hasta her muayeneye geldiğinde, reçetesiz ilaçlar da dahil kullandığı tüm ilaç ve takviyelerinsorgulanması
- Yazılacak ilaçların klinik endikasyonundan emin olunması amacıyla Beers ve Start kriterlerininkullanılması
- Sedasyon yapan, sakinleştirici özelliği olan ilaçların kişinin günlük yaşamındaki faaliyetlerini etkileyebileceğinden dolayı dikkatle önerilmesi
- Tümbuetkileşimlerinsağlanabilmesiiçinhekimilehastave/veyabakımverenarasındaiyibir iletişimin sağlanmasıönemlidir.[10]

Referanslar

1. Ferner RE, Aronson JK. Communicating information about drug safety. BMJ. 2006 Jul 15;333(7559):143-5. doi:10.1136/bmj.333.7559.143.
2. Duerden M, Avery T, Payne R. Polypharmacy and medicines optimisation: Making it safe and sound. The King's Fund 2013. Available at: kingsfund.org.uk/publications/polypharmacy-and-medicines-optimisation. (Accessed on Oktober 06,2022)
3. Tinetti ME, Bogardus ST Jr, Agostini JV. Potential pitfalls of disease-specific guidelines for patients with multiple conditions. N Engl J Med. 2004 Dec 30;351(27):2870-4. doi: 10.1056/NEJMsb042458.
4. Nightingale G, Hajjar E, Swartz K, Andrel-Sendecki J, Chapman A. Evaluation of a pharmacist-led medication assessment used to identify prevalence of and associations with polypharmacy and potentially inappropriate medication use among ambulatory senior adults with cancer. J Clin Oncol. 2015 May 1;33(13):1453-9. doi: 10.1200/JCO.2014.58.7550. Epub 2015 Mar23.
5. Wimmer BC, Cross AJ, Jokanovic N, Wiese MD, George J, Johnell K, Diug B, Bell JS. Clinical Outcomes Associated with Medication Regimen Complexity in Older People: A Systematic Review. J Am Geriatr Soc. 2017 Apr;65(4):747-753. doi: 10.1111/jgs.14682. Epub 2016 Dec19.
6. Steinman MA, Hanlon JT. JAMA 2010;304:1592-601
7. O'MahonyD,O'SullivanD,ByrneS,O'ConnorMN,RyanC,GallagherP.STOPP/START criteria for potentially inappropriate prescribing in older people: version 2. Age Ageing. 2015 Mar;44(2):213-8. doi: 10.1093/ageing/

afu145. Epub 2014 Oct 16. Erratum in: Age Ageing. 2018 May1;47(3):489.

8. By the 2019 American Geriatrics Society Beers Criteria® Update Expert Panel. American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. J Am Geriatr Soc. 2019 Apr;67(4):674-694. doi: 10.1111/jgs.15767. Epub 2019 Jan29.
9. https://www.akademikgeriatri.org(Erişim tarihi, 6 Ekim2022)
10. Elkin N. Yaşlılarda Polifarmasi ve Akılcı İlaç Kullanımına Aile Hekimliği Yaklaşımı. IGUSAB-DER,11(2020):279-290.

HYPERGLYCEMIC EMERGENCIES

Hüseyin ERGENÇ[1]

Diabetes mellitus is a disease caused by a hereditary/acquired deficiency in insulin production by pancreas or the ineffective insulin produced. Diabetic ketoacidosis (DKA) and hyperosmolar hyperglycemic condition (HHS) are two of the most severe acute complications of diabetes (1).

In DKA and HHD diabetic patients, representing two endpoints in the spectrum of decompanse diabetes, they continue to have significant mortalities and morbidity, despite well-developed diagnostic criteria and treatment protocols. The DKA and HHS differ clinically according to the presence of ketoacidosis and generally the degree of hyperglycemia (2).

While the major finding in the DKA is often metabolic acidosis, serum glucose concentration is usually below 800 mg/DL and often within the range of 350-500 mg/DL. Together with this, serum glucose concentrations may exceed 900 mg/DL in patients with DKA in a coma, and may have increased normal or minimal in pediatric DKA patients (< 250 mg/DL).

Ketoacid build-up on HHS is very small or not at all, the serum glucose concentration generally exceeds 1000 mg/DL, plasma osmolality (Posm) can reach 380 mOsmol/kg and neurological abnormalities are often present (1,3).

A precipitating event can usually be identified in patients with DKA or HHS. The most common events are infection (often pneumonia or urinary tract infection) and discontinuation of or inadequate insulin therapy. Compromised water intake because of underlying medical conditions, particularly in older patients, may promote the development of severe dehydration and HHS. In addition, acute major diseases such as myocardial infarction, cerebrovascular event, sepsis or pancreatitis can also trigger development of DKA and HHS (2,3).

DKA develops rapidly, usually over a 24-hour period. In contrast, the symptoms of HHS develop more insidiously, with polyuria, polydipsia, and weight loss, and usually persist for a few days before hospitalization.

The earliest signs of overt hyperglycemia are polyuria, polydipsia, and weight loss. As the degree or duration of hyperglycemia progresses, neurological symptoms such as lethargy, focal signs and obtundation may develop. This can progress to coma in the later stages. Neurological symptoms are most common in HHS, while hyperventilation and abdominal pain are primarily limited to patients with DKA.

Neurological deterioration mainly occurs in patients with an effective plasma osmolality (Posm) above 320 mosmol/kg. Mental obtundation and coma are more common in HHS than DKA, usually because of a higher degree of hyperosmolality. In addition, some patients with HHS experience focal neurological signs (hemiparesis or hemianopsia) and/or seizures. Mental obtundation may occur when severe acidosis occurs in DKA patients with a lower degree of hyperosmolality. However, in diabetic patients with an effective Exposure less than 320 mosmol/kg, stupor or coma requires immediate evaluation of other causes of mental status change (4).

DKA patients may have nausea, vomiting and abdominal pain; Although more common in children, these symptoms can also occur in adults. Abdominal pain is unheard of in the HHS. The abdominal pain was associated with the severity of the metabolic acidosis, but was not correlated with the severity of hyperglycemia or dehydration(5).

Symptoms of volume reduction commonly seen in both the DKA and HHS include skin turbial reduction, dry axillae and oral mucosa, low jugular venous pressure, tachycardia and hypotension if serious.

The initial assessment of patients with hyperglycemic attacks should include assessment of heart status, volu-

me and mental status.

The first laboratory evaluation of a patient suspected of DKA or HHS is the determination of serum glucose. In addition, electrolytes, blood urea nitrogen and plasma creatinine levels, whole blood count, urine and urine ketones; plasma osmolality, arterial blood gas and electrocardiogram should be evaluated.

Serum glucose concentration may exceed 1000 mg/dL on the HHS, but usually less than 800 mg/dL. In the DKA, it is usually within the range 350 to 500 mg/dL (6).

Three keton bodies are produced in the DKA, including asetetic acid, beta-hydroxycycycic acid acetone. Urine ketone objects can be detected by a measurement bar with nitroprussid tests, while serum ketones can be detected by direct analysis of beta-hydroxycihydride levels or by a nitroprussid test. Direct analysis of Beta-hydroxycihyhydr levels is preferred.

Patients with DKA usually present with a serum anion gap greater than 20 mEq/L [Serum anion gap calculation: Serum anion gap = Serum sodium - (serum chloride + bicarbonate)]. In patients with DKA, elevated metabolic acidosis of anionic difference is caused by accumulation of beta-hydroxybutyric and acetoacetic acids. However, the increase in anion gap is variable and is primarily determined by several factors, such as the rate and duration of ketoacid production, metabolic rate and urinary loss of ketoacids, and volume of distribution of ketoacid anions(7).

Plasma osmolality (Posm) is typically >320 mosmol/kg in patients with HHS. However, this is lower in patients with DKA (Effective Exposure Calculation: Effective Exposure= [2 x Na (mEq/L)] + [glucose (mg/dL) ÷ 18]). The Na concentration in these equations is the actual measured plasma Na concentration, not the corrected Na concentration. Na is multiplied by two to account for the osmotic contribution of anions (primarily chloride and bicarbonate) accompanying sodium. Eighteen multiplied by glucose in the equation is a factor for converting glucose units from mg/dL to mmol/L.

Most patients with DKA and HHS are mildly hyponatremic, but patients with significant osmotic diuresis may have normal or elevated serum sodium (Na) concentrations. The serum Na concentration in DKA and HHS reflects the balance between the dilution effect of water leaving the cells in response to the increase in serum osmolality induced by hyperglycemia and the increase in electrolyte-free water excretion due to osmotic diuresis induced by glucosuria (8).

The serum potassium concentration is usually normal or elevated at presentation in one-third of patients. This is because potassium shifts from the intracellular fluid to the extracellular fluid, caused by hyperosmolality and insulin deficiency. Insulin therapy displaces potassium in cells and lowers the amount of potassium. This can cause severe hypokalemia, especially in patients with normal or low serum potassium concentration. Careful follow-up and timely administration of potassium supplementation is critical (9).

DKA and HHD Diagnostic Criteria

DKA is characterized by the triad of hyperglycemia, anion gap metabolic acidosis, and ketonemia. Metabolic acidosis is often the major finding. The serum glucose concentration is usually below 800 mg/dL and often between 350 and 500 mg/dL. However, serum glucose concentrations in comatose DKA patients may exceed 900 mg/dL. In some situations, such as fasting, pregnancy, insulin therapy before coming to the emergency room, or the use of sodium-glucose co-transporter 2 (SGLT2) inhibitors, the glucose level may be slightly elevated or even normal.

In HHS, there is little or no ketoacid accumulation. The serum glucose concentration may exceed 1000 mg/dL, the plasma osmolality is greater than 320 mosmol/kg, and neurological abnormalities are often present. Most patients with HHS have an admission pH >7.30, serum bicarbonate >20 mEq/L, and serum glucose >600 mg/dL(10).

DKA and HHD Treatment

In diabetic ketoacidosis/HHD, treatment objectives are to regulate the circulation volume and tissue perfusion, bring serum glucose and ozmolality to normal limits, clean keton bodies in urine and serum, correct electrolyte balance, and define the facilitating factors in the development of metabolic decompation status.

Treatment for DKA and HHS is similar, including correction of typically present fluid and electrolyte abnormalities (hyperosmolality, hypovolemia, metabolic acidosis [in DKA] and potassium loss) and administration of insulin. The first step in the treatment of DKA or HHS is isotonic fluid infusion to expand the extracellular volume and stabilize the cardiovascular status. It also increases insulin response by lowering plasma osmolality, reducing vasoconstriction, improving perfusion and lowering stress hormone levels. The next step is to correct the potassium deficit, if any. Since potassium is osmotically as active as sodium, the osmotic effect of potassium replacement should be considered when selecting fluid replacement.

In DKA, there is an average of 6 L in HHD and an average of 9 L in fluid clearances.. The aim is to increase intra/extra vascular volume and to provide renal perfusion. In patients without cardiac problems and prone to shock, 0.9% NaCl 1000-1500 ml (or 15-20 ml/kg/hr) can be given during the first hour of treatment. While it is recommended to continue treatment with isotonic fluid in patients with low corrected sodium value, 0.45% NaCl (4-14 ml/kg/hour) can be infused if it is normal and high. It is aimed to replace half of the estimated water and sodium deficit in 12-24 hours.

All patients with medium to severe DKA with serum potassium ≥ 3.3 mEq/L should be treated with low dose intravenous insulin. If the serum potassium is below 3.3 mEq/L, insulin therapy should be delayed until potassium replacement begins and serum potassium concentration increases because insulin drives potassium into cells, worsening hypokalemia, which can trigger cardiac arrhythmias.

After an IV bolus of 0.1 IU/kg insulin, an IV infusion dose of 0.1 IU/kg/hour is recommended. The optimal rate of glucose reduction is between 50-70 mg/hr. If the desired glucose reduction is not achieved in the first hour, an additional bolus of insulin at 0.1 u/kg may be given. When plasma glucose reaches 200-250 mg/dL in diabetic Ketoacidosis or 300 in hyperosmolar hyperglycemic state, the insulin rate should be reduced to 0.05 U/kg/hr, followed by 5-10% dextrose infusion. Dextrose and insulin doses should be adjusted so that the blood glucose level is kept around 150-200 mg/dl, and the infusion should be continued until the patient's acidosis condition improves.

Adequate urine output (50 ml/hour) should be maintained for the patient before adding potassium to the infusion. 20-30 mEq/L potassium can be added to each liter of infusion fluid. If the initial potassium value is lower than normal (<3.5 mEq/l), insulin therapy should be initiated after the K level is increased. Serum potassium level should be checked at intervals of 2-4 hours and the patient should be followed up with ECG monitoring. Potassium supplementation should be continued until the patient's condition stabilizes and oral intake begins.

The role of bicarbonate in the treatment of metabolic acidosis caused by DKA is controversial. Regardless of the pH in the treatment, there is no proven benefit of bicarbonate therapy. The recommendations for patients with very low pH are as follows; In patients with pH between 6.9 and 7.0, it may be helpful to administer 50 mmol of bicarbonate in 200 ml of sterile water containing 10 mmol of KCL for two hours to maintain pH >7.0. Adult patients with pH <6.9 should be given 100 ml of sodium bicarbonate in 400 ml of sterile water (an isotonic solution). Venous pH should be evaluated every 2 hours until it reaches 7.0; If necessary, the treatment can be repeated every 2 hours. Bicarbonate therapy is not recommended in patients with pH > 7.0 (11,12).

Hypoglycemia and hypokalemia are the most common complications of DKA and HHS treatment. These complications have become much less common since low-dose intravenous (IV) insulin therapy and careful monitoring of serum potassium have been implemented.

REFERENCES

1. Kitabchi AE, Umpierrez GE, Miles JM, Fisher JN. Hyperglycemic crises in adult patients with diabetes. Diabetes Care 2009; 32:1335.
2. Kitabchi AE, Umpierrez GE, Fisher JN, et al. Thirty years of personal experience in hyperglycemic crises: diabetic ketoacidosis and hyperglycemic hyperosmolar state. J Clin Endocrinol Metab 2008; 93:1541.
3. Daugirdas JT, Kronfol NO, Tzamaloukas AH, Ing TS. Hyperosmolar coma: cellular dehydration and the serum sodium concentration. Ann Intern Med 1989; 110:855.
4. Nyenwe EA, Razavi LN, Kitabchi AE, et al. Acidosis: the prime determinant of depressed sensorium in diabetic ketoacidosis. Diabetes Care 2010; 33:1837.
5. Umpierrez G, Freire AX. Abdominal pain in patients with hyperglycemic crises. J Crit Care 2002; 17:63.
6. Kitabchi AE, Umpierrez GE, Miles JM, Fisher JN. Hyperglycemic crises in adult patients with diabetes. Diabetes Care 2009; 32:1335.
7. Smith SW, Manini AF, Szekely T, Hoffman RS. Bedside detection of urine beta-hydroxybutyrate in diagnosing metabolic acidosis. Acad Emerg Med 2008; 15:751.
8. Phillips PA, Bretherton M, Johnston CI, Gray L. Reduced osmotic thirst in healthy elderly men. Am J Physiol 1991; 261:R166.
9. Abramson E, Arky R. Diabetic acidosis with initial hypokalemia. Therapeutic implications. JAMA 1966; 196:401.
10. Szeto CC, Li KY, Ko GT, et al. Acromegaly in a woman presenting with diabetic ketoacidosis and insulin resistance. Int J Clin Pract 1997; 51:476.
11. Umpierrez GE, Jones S, Smiley D, et al. Insulin analogs versus human insulin in the treatment of patients with diabetic ketoacidosis: a randomized controlled trial. Diabetes Care 2009; 32:1164.
12. Hirsch IB, Draznin B. Transition of Patients to and from Insulin Degludec: A Clinical Challenge. J Clin Endocrinol Metab 2020; 105.

Ülkemizde Acil Tıp Dergileri

Serkan Günay

Dünyada acil tıp uzmanlığı programı ilk olarak 1972 yılında Cincinnati Üniversitesinde başlamıştır *(1)*. Türkiye'de acil tıbbın kuruluşuna bakacak olursak, 1992 yılında o dönem 9 Eylül Üniversitesi rektörü olan Prof. Dr. Namık Çevik sağlık şurasında göreve başlamıştır. Göreve başladığı dönemde yaptığı çalışmalar sonucunda 30 Nisan 1993 de Acil ve İlk yardım tıpta uzmanlık tüzüğünde ayrı bir bilim dalı olarak yerini alır. 1994 yılında 9 Eylül Üniversitesi'nde Acil Tıp Anabilim dalı kurularak ilk öğrencilerini almaya başlar (*2*). Ardından 1995 yılında Dr. John Fowler Acil Tıp Derneği kurulmuştur. 2001 yılında Acil Tıp Dergisi yayınlanmaya başlamıştır (*1*).

Günümüzde acil tıp dernekleri tarafından yayınlanan, Turkish Journal of Emergency Medicine, Eurasian Journal of Emergency Medicine, Journal of Emergency Medicine Case Report, Anatolian Journal of Emergency Medicine, Eurosian Journal of Critical Care, Eurosian Journal of Toxicology, Global Emergency and Critical Care olmak üzere 7 adet dergi bulunmaktadır (*3-5*). Kuruluş sırasına göre değerlendirecek olursak;

1.Turkish Journal of Emergency Medicine

2000 yılında Türkiye Acil Tıp Dergisi olarak kurulmuştur.Türkiye Acil Tıp Derneği'nin resmi bilimsel yayın organıdır. 2015 yılına kadar iki dil olarak yayınlanmış,2015 yılından itibaren Turkish Journal of Emergency Medicine olarak yayınlanmaya başlamış ve İngilizce'yi birincil dil olarak benimsemiştir. Online olarak Ocak, Nisan, Temmuz, Ekim olmak üzere yılda 4 kez yayınlanmaktadır. Web of Science Emerging Sources Citation Index (ESCI, Clarivate), Pubmed, Scopus, DOAJ, Science Direct, EBSCO, Google Scholar, SCImago, TRDizin, Türkiye Atıf Dizini'nde indeklenmektedir (*6*) .

Web of science zemininde yeni bir metrik olarak ortaya çıkan Journal Citation İndicator (JCI) değeri 2021 yılında 0,93 olarak gözükmektedir (*7*). Scopus zemininde 2021 yılı Cite Score değerine bakacak olursak 7 gözükmekte Cite Score sıralamasında acil tıp dergileri arasında 5. Sırada (5/90) yer almaktadır(*8*). CiteScore sıralamasındaki ilk 10 dergi aşağıda tablo olarak verilmiştir(Tablo-1) (*9*).

Tablo-1. Scopus Cite Score sıralamasına göre ilk 10 dergi

SIRALAMA	DERGİ ADI	CITESCORE	PERSENTİL
1	World Journal of Emergency Surgery	10.2	%99
2	Resusitation	8.5	%98
3	Advances in Wound Care	7.9	%97
4	Annals of Emergency Medicine	7.9	%96
5	Turkish Journal of Emergency Medicine	7.0	%95
6	Shock	6.1	%93
7	Academic Emergency Medicine	5.6	%92
8	Internal and Emergency Medicine	5.3	%91
9	Critical Care and Resusitation	5.2	%90
10	Archives of Academic Emergency Medicine	4.8	%89

Derginin nihai karar zamanına bakacak olursak, tüm yazılara ortalama 3.2 hafta gibi bir sürede dönüş yapılmakta, kabul edecekleri orjinal makale ve incelemeler için 7,6 hafta , vaka raporları/ serilerinde 6,4 hafta ve reddedilen yazılarda ise orijinal makale ve incelemeler için 2,6 hafta, vaka raporları/serilerinde 3,6 hafta gibi bir sürede dö-

nüş yapılmaktadır (7).

Ulakbim TRDizin veri tabanını incelediğimizde 2005-2014 yılları arasında toplam makale sayısı 379, atıf sayısı 593, kendine atıf sayısı 42, atıf alan makale sayısı 167, atıf ortalaması 1,56, kendine atıf oranı %0.07 olarak gözükmekte, 2015 ve 2019-2022 yılları arasında toplam makale sayısı 161, atıf sayısı 36, kendine atıf sayısı 2, atıf alan makale sayısı 20, atıf ortalaması 0,22, kendine atıf oranı: %0.06 olarak gözükmektedir (10). Pubmed veri tabanını incelediğimizde ise son 5 yıl içinde en çok atıf alan ilk 3 makalesine bakacak olursak 1. Sırada 875 atıf ile Haldun Akoglu. User's guide to correlation coefficients. Turk J Emerg Med. 2018. doi:10.1016/j.tjem.2018.08.001, ikinci sırada 69 atıf ile Nurettin Özgür Doğan. Bland-Altman analysis: A paradigm to understand correlation and agreement. Turk J Emerg Med. 2018. doi:10.1016/j.tjem.2018.09.001 3. Sırada ise 21 atıfla Erwin Christian de Bliek. ST elevation: Differential diagnosis and caveats. A comprehensive review to help distinguish ST elevation myocardial infarction from nonischemic etiologies of ST elevation. Turk J Emerg Med. 2018. doi:10.1016/j.tjem.2018.01.008 gelmektedir (*11*).

2. Eurasian Journal of Emergency Medicine

2003 yılında Akademik Acil Tıp Dergisi olarak kurulmuştur. Acil Tıp Uzmanları Derneği'nin resmi bilimsel yayın organıdır. 2015 yılından itibaren Eurasian Journal of Emergency Medicine olarak yayınlanmaya başlamıştır. Resmi yayın dili İngilizce'dir ve Mart, Haziran, Eylül ve Aralık olmak üzere yılda 4 kez online ve basılı yayınlanır. Web of Science-Emerging Sources Citation Index (ESCI), ULAKBIM TrDizin, British Library, EBSCO, Index Copernicus, Gale, CABI, Directory of Research Journals Indexing, J-Gate, Türk Medline, Türkiye Atıf Dizini, DOAJ, Hinari, GOALI, ARDI, OARE, AGORA, ProQuest de indekslenmektedir (*12*). Derginin Web of Science alt yapısında journal Citation İndicator (JCI) değeri 0,07 olarak gözükmektedir (7).

Ulakbim TrDizin veritabanını incelediğimizde 2009-2013 yılları arası toplam makale sayısı 257, atıf sayısı 377, kendine atıf sayısı 14, atıf alan makale sayısı 115, atıf ortalaması 1,47, kendine atıf oranı %0,04 olarak, 2014-2022 yılları arasında ise toplam makale sayısı 413, atıf sayısı 119, kendine atıf sayısı 19, atıf alan makale sayısı 59, atıf ortalaması 0,29, kendine atıf oranı %0,16 olarak gözükmektedir (*13*).

3.Journal of Emergency Medicine Case Report

2010 yılında Acil Tıp Olgu Sunumları Dergisi olarak kurulmuştur. Acil Tıp Uzmanları Derneği'nin resmi bilimsel yayın organıdır. Özgün ve ilginç vaka sunumlarını ve tıp alanına katkı sağlamış kısa raporları konu almayı amaçlayan bir dergidir. 2015 yılından itibaren Journal of Emergency Medicine Case Report olarak yayınlanmaya başlamıştır. Ocak, Nisan, Temmuz ve Ekim olmak üzere yılda 4 online olarak yayınlanır ve resmi yayın dili İngilizce'dir. (*14*).

Web of Science'da ESCI olarak indeklenmektedir ve journal citation indicator değeri 2021 yılında 0,01'dir(7).

4.Anatolian Journal of Emergency Medicine

2018 yılında yayın hayatına başlamıştır. Türkiye Acil Tıp Derneği'nin resmi bilimsel yayın organıdır. Mart, Haziran, Eylül ve Aralık ayında olmak üzere yılda 4 kez online olarak yayınlanmaktadır ve yayın dili İngilizce ve Türkçe'dir. Google Akademik, Türkiye Atıf Dizini, Asos İndex, EuroPub, Scientific İndexing Service (SIS) ve TrDizin' de indekslenmektedir (*15*).

5.Eurosian Journal of Critical Care

2019 yılında yayın hayatına başlamıştır. Acil Tıp Uzmanları Derneği'nin resmi bilimsel yayın organıdır. Nisan, Ağustos ve Aralık olmak üzere yılda 3 kez yayınlanır ve resmi yayın Dili İngilizce'dir. Kritik hastalar veya yaralılar için akut ve acil bakımın tüm yönlerini kapsamayı amaçlayan bir dergidir. EuroPub, Scientific Indexing Services (SIS), Directory of Research Journals Indexing (DRJI), Türkiye Atıf Dizini ve Asos Index' de indekslenmektedir (*16*).

6.Eurosian Journal of Toxicology

2019 yılında yayına başlamıştır. Acil Tıp Uzmanları Derneği resmi bilimsel yayın organıdır. Nisan, Ağustos ve Aralık olmak üzere yılda 3 kez online olarak yayınlanmaktadır. Resmi yayın dili İngilizce ve Türkçe'dir. Toksikoloji ve ilaç araştırmaları alanında yazılan tıp literatürüne katkıda bulunabilecek bilimsel olarak yüksek kaliteli yazıları yayınlamayı amaçlamaktadır. Scientific Indexing Services (SIS), Directory of Research Journals Indexing (DRJI), EuroPub, CiteFactor, Google Scholar, Asos İndeks' de indekslenmektedir (*17*).

7.Global Emergency and Critical Care

2022 yılında yayına başlamıştır. Türkiye Acil Tıp Vakfı'nın resmi bilimsel yayın organıdır. Nisan, Ağustos ve Aralık olmak üzere yılda 3 kez online olarak yayınlanmaktadır. Yayın dili İngilizce'dir. Acil tıp ve ilgili diğer alanlarda yazılmış, literatüre katkı sağlayabilecek, bilimsel olarak yüksek kalitede makaleler yayınlamayı amaçlamaktadır. J-GATE ve Gale'de indekslenmektedir (*18*). Türkiye Acil Tıp Vakfı 9 Mart 2022 tarihinde kurulmuş ve bilimsel hayata katkı sağlamak amacıyla hızlıca ilk dergisini yayın hayatına geçirmiş ve şimdiden 2 sayısını yayınlanmıştır (*5*). Bu da derginin akademik hayata hızlıca katkı sağlamayı amaçladığını bize göstermektedir.

8.Ulusal Travma ve Acil Cerrahi Dergisi

Ulusal Travma ve Acil Cerrahi dergisi acil tıp dernekleri tarafından yayınlanmayan ama acil tıp alanında yayınlanmış diğer bir dergidir. SCI-E olarak yayınlanan bir dergi olduğu için acil tıp uzmanları tarafından yayın göndermeyi sevilen bir dergidir. Dergiyi inceleyecek olursak; 1995 yılında yayınlanmaya başlamıştır. Ulusal Travma ve Acil Cerrahi Derneği'nin resmi yayın organıdır. Ocak, Mart, Mayıs, Temmuz, Eylül ve Kasım olmak üzere yılda 6 kez yayınlanmaktadır. Yayın dili İngilizce'dir. Travma ve acil cerrahi hastalıklar konusundaki yayınları yayınlamayı amaçlamaktadır. Dergi 2021 yılına kadar ücretsiz olarak yayınlanmaktayken 2022 yılı itibari ile ücretli bir dergi olarak yayınlanmaya başlamıştır. Makale kabulü öncesinde yayın garantisi vermeden belli bir ücret talep etmekte ve ona göre dergiyi değerlendirmeye almaktadır. Alınan ücret karşılığında yayın garantisi vermemektedir (*19*).

Web of Science zemininde SCI-E olarak yayınlanan bir dergidir ve Journal Impact Factor (JIF) değeri 0,894, journal citation indicator (JCI) değeri 2021 yılında 0,40 olarak gözükmektedir (*7*). Scopus zemininde Cite Score değeri 2021 yılında 1,4 gözükmekte ve acil tıp kategorisinde 44. sırada (44/90) yer almaktadır (*20*).

Science Citation Index-Expanded (SCI-E), PubMed, Indeks medicus, Medline, EMBASE, SCImago, Journal Citation Reports / Science Edition, Scobus, ULAKBİM TrDizin, Europe PMC, ProQuest ve CINAHL' de indekslenmektedir (*19*).

Acil Tıp Dergileri Hangi Yazıları Kabul Ederler

Acil tıp dergileri, kendi alanlarındaki toplam bilgi birikimine katkı sağlayacak yazıları kabul ederler. Bunun da en nesnel göstergesi atıftır. Daha çok atıf alabilecek haber niteliği taşıyan yazıları yayınlamayı tercih ederler. Dergi özellikle olgu sunumları üzerine dizayn edilmiş bir dergi değilse olabildiğince vaka raporları yerine kontrol grubu olan kanıt düzeyi yüksek araştırma makaleleri olmasını isterler.

Dergiler kabul edeceği yazılarda bilimsel özene dikkat edilmiş olması isterler. Dergiler yazıları kabul edecekleri zaman belli bir şablona göre dizayn edilmesini ister. İmla hatalarından arınmamış istenilen şablona göre yazılmamış yazılar hakemler ve editörlerde özensiz olarak yazılmış izlenimi uyandırabilir. Daha yazım aşamasında özen gösterilmemiş yazıların araştırma aşamasında özen gösterilmemiş olduğunu düşündürebilir. Dergilerin daha yazının içeriğini incelemeden yazıları reddetmesinin en sık sebebidir. Uluslararası dergiler çoğunlukla makalelerinin İngilizce dilinde yayınlar. İngilizce dilde yayınlayacakları makalelerin gramer hatalarından arındırılmış olması isterler. Çoğu dergi yazıların ana dili İngilizce olan kişi veya kurumlarca redakte edilmesini ister. Bazı dergiler bunun için kendi sitelerinde ücretli hizmet sunarlar.

Dergiler kabul edecekleri yazıların kendi temel ilgi alanlarına uygun olmasını isterler. Türkiye'de acil tıp dernekleri

tarafından yayınlanan dergilerin son 5 yıl içinde en çok kabul ettiği konular Tablo-2 de özetlenmiştir (1).

Tablo-2. Ülkemizdeki Acil Tıp Dergilerinin En Çok Kabul Ettiği Konular (Son 5 Yıl)

Dergi Adı	1	2	3	4	5
Turkish Journal of Emergency Medicine	Toksikoloji (21/190)	İleri ve Temel Kardiyak Yaşam Desteği (20/190)	Görüntüleme (15/190)	Kardiyak Aciller (15/190)	Nörolojik Aciller (12/190)
Eurasian Journal of Emergency Medicine	Travma (25/197)	Acil servis Başvuru, Sorun ve Yönetimi (24/197)	Covid-19 Hastalığı (16/197)	Kardiyak Aciller (15/197)	Görüntüleme (15/197)
Journal of Emergency Medicine Case Reports	Toksikoloji (28/163)	Travma (28/163)	Cerrahi Aciller (27/163)	Dahili Aciller (16/163)	Kardiyak Aciller (14/163)
Anatolian Journal of Emergency Medicine	Acil servis Başvuru, Sorun ve Yönetimi (21/129)	Toksikoloji (15/129)	Travma (14/129)	Cerrahi Aciller (13/129)	Kardiyak Aciller (12/129)
Eurasian Journal of Critical Care	Cerrahi Aciller (16/107)	Travma (14/107)	Pulmoner Aciller (12/107)	Nörolojik Aciller (11/107)	Dahili Aciller (10/107)
Eurasian Journal of Toxicology	Toksikoloji (67/71)	Kardiyak aciller (1/71)	Nörolojik Aciller (1/71)	Acil servis Başvuru, Sorun ve Yönetimi (1/71)	Deneysel Çalışmalar (1/71)
Global Emergency and Critical Care	Covid-19 Hastalığı (4/12)	Toksikoloji (2/12)	İleri ve Temel Kardiyak Yaşam Desteği (1/12) Marker Çalışması (1/12)	Travma (1/12) Cerrahi aciller (1/12)	Kardiyak Aciller (1/12) Enfeksiyon Hastalıkları (1/12)

Ülkemizdeki Acil Tıp Dergileri Covid-19'da Ne Durumdalar

2021 yılında Anatolian Journal of Emergency Medicine dergisinde yayılanmış Ali Kemal Erenler hocamızın yazısını inceleyecek olursak, SCImago Jounal&Rank Scoru'na göre sıralanmış ilk 20 dergi incelenmiş. 1 dergi online olarak yazılarına ulaşılamadığı 1 dergi ise acil tıp ile alakalı olmadığı için çalışma dışı bırakılmış. Kalan 18 dergi 2020 yılı süresince toplam makale sayısı ve Covid-19 ile ilgili makale sayılarına göre incelenmiştir. Bununla alakalı makale içerisinde yer alan tablo Tablo-3'te gösterilmektedir (*21*).

Tablo-3. 2020 Yılı COVID-19 Makaleleri ve Toplam Makale Sayısı

Journal	Total Articles	Total COVID-19 Articles	Total COVID-19 Articles/Total Articles	Journal	Total Articles	Total COVID-19 Articles	Total COVID-19 Articles/Total Articles
Resuscitation	432	62	0.1	Burns	294	16	0.005
Academic Emergency Medicine	228	45	0.2	Injury	587	31	0.05
Annals of Emergency Medicine	294	34	0.1	Emergency Medicine Journal	205	42	0.2
World Journal of Emergency Surgery	79	9	0.1	Critical Care and Resuscitation	64	17	0.2
Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine	118	15	0.1	European Journal of Emergency Medicine	124	19	0.15
Current Heart Failure Reports	46	1	0.02	Western Journal of Emergency Medicine	206	66	0.3
Shock	206	9	0.04	Journal of Burn Care and Research	150	3	0.02
Advances in Wound Care	39	1	0.02	Internal and Emergency Medicine	265	71	0.2
Prehospital Emergency Care	97	0	–	American Journal of Emergency Medicine	734	71	0.09

2020 yılı boyunca acil tıp dernekleri tarafından yayınlanan dergileri incelediğimizde toplamda 8 adet Covid-19 ile alakalı makale yayınlandığı görülmektedir (Tablo-4).

Tablo-4. 2020 Yılında Acil Tıp Dernekleri Tarafından Yayınlanan Dergilerdeki Covid-19 Makaleleri Sayısı ve Toplam Makale Sayısı

Journal	Total Articles	Total COVID-19 Articles	Total COVID-19 Articles/Total Articles
Turkish Journal of Emergency Medicine	36	2	0,05
Eurasian Journal of Emergency Medicine	42	2	0,04
Journal of Emergency Medicine Case Reports	38	1	0,02
Anatolian Journal of Emergency Medicine	32	1	0,03
Eurasian Journal of Critical Care	30	2	0,06
Eurasian Journal of Toxicology	19	0	0
Global Emergency and Critical Care	0	0	0

2020 yılından günümüze kadar yayınlanan makaleleri incelediğimizde ise toplamda Covid-19 ile alakalı 58 adet makale yayınlandığını görmekteyiz (Tablo-5).

Tablo-5.2020 Yılından Günümüze Kadar Acil Tıp Dernekleri Tarafından Yayınlanan Dergilerdeki Covid-19 Makale Sayısı ve Toplam Makale Sayısı

Journal	Total Articles	Total COVID-19 Articles	Total COVID-19 Articles/Total Articles
Turkish Journal of Emergency Medicine	112	10	0,08
Eurasian Journal of Emergency Medicine	130	16	0,12
Journal of Emergency Medicine Case Reports	109	11	0,1
Anatolian Journal of Emergency Medicine	82	8	0,09
Eurasian Journal of Critical Care	77	9	0,11
Eurasian Journal of Toxicology	48	0	0
Global Emergency and Critical Care	12	4	0,33

Tüm bunların sonucunda, Covid-19 pandemisi süresince ülkemizdeki acil tıp dernekleri tarafından yayınlanan dergilerin literatüre sınırlı sayıda katkı yaptığını görmekte ve pandemi dönemini etkin bir şekilde değerlendiremediğimizi görmekteyiz.

KAYNAKÇA

1.Doğan, N. Ö. (2016). Türkiye ve Dünyadaki Acil Tıp Dergileri. Türkiye Klinikleri Acil Tıp - Özel Konular, 2(3), 38–43.

2. ÇEVİK, N. (2016). Türkiye'de Akademik Acil Tıbbın Kuruluş Evresi. Türkiye Klinikleri Acil Tıp - Özel Konular, 2(3), 1–3.

3. Acil Tıp Uzmanları Derneği | ATUDER. (n.d.). Retrieved 15 November 2022, from https://www.atuder.org.tr/

4. Türkiye Acil Tıp Derneği | TATD. (n.d.). Retrieved 3 November 2022, from https://tatd.org.tr/

5. Türkiye Acil Tıp Vakfı – TÜAT. (n.d.). Retrieved 15 November 2022, from https://www.tuat.org/

6. About the Journal | Turkish Journal of Emergency Medicine. (n.d.). Retrieved 1 November 2022, from https://www.turkjemergmed.com/pages/about-the-journal

7. Company, W. of S. G., a Clarivate. (n.d.). Web of Science Master Journal List. Web of Science Group, a Clarivate Company. Retrieved 3 November 2022, from https://mjl.clarivate.com/

8. Scopus preview—Scopus—Turkish Journal of Emergency Medicine. (n.d.). Retrieved 1 November 2022, from https://www.scopus.com/sourceid/21100875599#tabs=1

9. Scopus preview—Scopus—Sources. (n.d.). Retrieved 16 November 2022, from https://www.scopus.com/sources.uri

10. Turkish journal of emergency medicine (Online). (n.d.). Retrieved 3 November 2022, from http://search/dergi/detay/2633

11. PubMed. (n.d.). PubMed. Retrieved 3 November 2022, from https://pubmed.ncbi.nlm.nih.gov/

12. Eurasian Journal Of Emergency Medicine. (n.d.). Retrieved 1 November 2022, from https://eajem.com/author-index

13. Eurasian Journal of Emergency Medicine. (n.d.). Retrieved 1 November 2022, from http://search/dergi/detay/1037

14. Journal of Emergency Medicine Case Reports » Ana Sayfa. (n.d.). Retrieved 1 November 2022, from https://dergipark.org.tr/tr/pub/jemcr

15. Anatolian Journal of Emergency Medicine » Yayın İlkeleri. (n.d.). Retrieved 1 November 2022, from https://dergipark.org.tr/tr/pub/anatolianjem/page/4969

16. Eurasian Journal of Critical Care » Ana Sayfa. (n.d.). Retrieved 1 November 2022, from https://dergipark.org.tr/tr/pub/ejcc

17. Eurasian Journal of Toxicology » Home. (n.d.). Retrieved 3 November 2022, from https://dergipark.org.tr/en/pub/ejtox

18. Journal History. (n.d.). Retrieved 3 November 2022, from https://globemcc.com/journal-history

19. Dergi Hakknda. (n.d.). Retrieved 1 November 2022, from https://tjtes.org/tr/dergi_hakkinda

20. Scopus preview—Scopus—Ulusal Travma ve Acil Cerrahi Dergisi. (n.d.). Retrieved 1 November 2022, from https://www.scopus.com/sourceid/34839#tabs=1

21. Erenler, A. K., & Baydin, A. (2021). Comparison of performances of top emergency medicine journals in terms of COVID-19 publications in 2020. The American Journal of Emergency Medicine, 46, 132–136. https://doi.org/10.1016/j.ajem.2021.03.003

KILAVUZ GÜNCELLEMELERİ: HİPERTANSİF ACİL YÖNETİMİNDE NE DEĞİŞTİ?

Dr. Songül ARAÇ

Hipertansiyon (HT); bugün dünyada başlıca ölüm sebepleri içerisinde yer alan kardiyovasküler, serebrovasküler ve renovasküler hastalıklar açısından majör risk faktörlerinden biridir. Dünya Sağlık Örgütü (WHO) verilerine göre dünya nüfusunda yaklaşık 1.4 milyar kişi hipertansiyon hastasıdır ve bu hastaların sadece %14'ü kontrol altındadır. Ülkemizde Türk Hipertansiyon Prevalans Çalışmasına göre, erişkin yaş grubunda HT prevalansı %31.8dir. Acil servislerde yapılan prevalans çalışmaları toplum sıklıkları ile paralellik göstermekle birlikte kan basıncı (KB) yüksekliği ile takip edilen hastaların önemli bir kısmında kalıcı hipertansiyon geliştiği gösterilmiştir. Gerçek hipertansif acil durumlar, akut olarak hasarlanan hedef organ tarafından tanımlanır ve acil servis başvurularının yaklaşık olarak %0.2-0.6'sında meydana gelir.

KILAVUZLAR

Dünyada ve ülkemizde başlıca takip edilen güncel HT kılavuzları şunlardır:

- Amerika'da yayınlanan Birleşik Ulusal Komite 8. Raporu (Joint National Committee 8th Report:JNC 8) 2014
- Amerikan Kalp ve Amerikan Kardiyoloji Cemiyetleri (American Heart Association- American College of Cardiology: AHA-ACC) 2017
- European Society of Cardiology and the European Society of Hypertension (ESC/ESH) 2018
- Türk Hipertansiyon Uzlaşı Raporu 2019
- Türkiye Endokrinoloji ve Metabolizma Derneği (TEMD) Hipertansiyon Tanı Ve Tedavi Kılavuzu 2022

Bu kılavuzlarda esas olarak tanı ve tedavi önerileri yer almaktadır. Bunlardan hipertansif acil başlığını ele alan kılavuzlar; AHA-ACC 2017, ESC/ESH 2018 ve TEMD 2022 dir. Bunun yanında ESC tarafından 2019 da hipertansif acil durumların yönetimi hakkında görüş makalesi yayınlanmıştır. ESC 2019 görüş makalesi, AHA-ACC 2017 ve TEMD 2022 farklılıklarına değinilecektir. Bu kılavuzlarda hipertansif acil yönetiminde büyük farklılıklar yoktur. Zira KBnın ne hızla, ne kadar düşürülmesi gerektiğini gösteren randomize klinik bir çalışma yoktur. Elde edilen bilgiler klinik deneyime bağlıdır. Tedavide intravenöz (iv) ajanlar tercih edilmelidir. Hedef organ hasarı (HOH) nın tipi, tedavi seçiminin, hedef KBnın ve geçen sürenin temel belirleyicisidir. KBnın çok hızlı düşürülmesi renal, serebral ve koroner iskemiye yol açarak organ hasarını arttırabilir. Pek çok hipertansif acilde ilk bir saatte KBında %10-20'lik bir düşüş planlanması takiben 24 saat içinde %5-15'lik ek bir düşüş planlanması uygundur. Ancak kılavuzlarda esas fark terminolojik tanımlamalardır.

TEMD 2022: Hipertansif kriz bir çatı kavramıdır ve altında hipertansif acil (emergency) ve ivedi hipertansiyon (urgency) (hipertansif ivedi durum) (ciddi asemptomatik hipertansiyon) içermektedir. HOH eşlik eden HT (Sıklıkla hastaların KB sistolik ≥180 mm/Hg ve/veya diastolik ≥120 mm/Hg üzerinde bulunsa da tanı için belirli bir KB sınırı yoktur) hipertansif acil olarak tanımlanmıştır. Diğer yandan KB≥180/120 mm/Hg olmasına rağmen akut HOH yoksa, bu durum ciddi asemptomatik hipertansiyon ya da hipertansif ivedi durum olarak adlandırılmaktadır. Malign HT terimini kabul eder ve çok yüksek KBına eşlik eden iskemik organ hasarı olarak tanımlamıştır.

ESC 2019 GÖRÜŞ YAZISI: Hipertansif acil (emergency) terimi benimsenirken (genellikle KB >180/110) ivedi hipertansiyon (urgency) terimi kullanmamayı tercih etmiş ve buna bağlı olarakta hipertansif kriz kavramının geçerliliğinin olmadığını belirtmiştir. Semptomatik şiddetli KB yüksekliğine organ hasarı eşlik etmediğindeki duruma kontrolsüz hipertansiyon başlığında incelemiştir. Malign hipertansiyon tanımını; çok yüksek KB değerlerinin (sıklıkla >200/120 mmHg) ilerlemiş retinopati, akut böbrek yetmezliği ve/veya trombotik mikroanjiyopati ile bir-

likte bulunması şeklinde yapmıştır.

AHA-ACC 2017: Hipertansif acil durumlar, yeni veya kötüleşen HOHnın kanıtlarıyla ilişkili KBında ciddi yükselmeler (>180/ ve veya >120 mm Hg) olarak tanımlanır. Hipertansif aciliyetler (urgency) için akut HOHna dair klinik veya laboratuvar kanıtları olmadığı durum olarak yazıda tanımlaması yapılsa da tabloda urgency terimi yerine belirgin yüksek KB deniliyor. Malign HT kavramı ayrıca ele alınmamış ve tanımlanmamıştır.

Yani hipertansif acil tanımı genellikle ≥180/120 mmHg olmakla birlikte sınır bir değer yoktur. Klinik prezentasyonda KB değerinden çok ne kadar sürede geliştiğinin önemi vardır. Hastanın öyküsünde HT varlığı şart değildir. Mutlak olması gereken ise istisnasız HOHdır. KB yüksekliği ve HOH şüphesi doğuran şikayetle gelen hastalar hipertansif acil açısından değerlendirilmelidir (Tablo 1). Hedef organlar başlıca, kalp, beyin, böbrek, vasküler yapı, göz ve uterustur. Oluşabilecek hedef organ hasarları ve tedavileri Tablo 2'de verilmiştir.

Tablo 1: Kılavuz tanımlamaları ve semptom bulgu

<table>
<tr><td colspan="2">KAN BASINCI YÜKSEKLİĞİ</td></tr>
<tr><td>Eşlik Eden Hedef Organ Hasarı Var</td><td>Eşlik Eden Hedef Organ Hasarı Yok</td></tr>
<tr><td>HT Acil

(Emergency HT)</td><td>Ciddi Asemptomatik Hipertansiyon

(Kontrolsüz Hipertansiyon)

(Urgency Ht)

(Hipertansif İvedi Durum)
(HT aciliyet)
(Belirgin KB yüksekliği)</td></tr>
<tr><td colspan="2">SEMPTOM VE BULGU</td></tr>
<tr><td><table>
<tr><td>BULGU</td><td></td></tr>
<tr><td>Fokal Nörolojik Defisit</td><td>İskemik svo, Hemorajik svo</td></tr>
<tr><td>Papil Ödem, Deliryum</td><td>Hipertansif ensefalopati</td></tr>
<tr><td>Akut Göğüs Ağrısı, Sırt Ağrısı</td><td>Aort diseksiyonu, Aks</td></tr>
<tr><td>Akut Dispne</td><td>Pulmoner ödem</td></tr>
<tr><td>Nöbet Gebelik</td><td>Eklampsi</td></tr>
<tr><td>Baş Ağrısı, Terleme, Çarpıntı</td><td>Feokromasitoma</td></tr>
</table></td><td>Nonspesifik semptomlar
(Akut HOH yokluğunu belirtmek için, tanımlamalar potansiyel yanılsamayı beraberinde getirebilmektedir. Örneğin bu hastalar genellikle asemptomatik terimiyle tanımlanır. Ancak spesifik olmayan semptomlar barındırabilirler. Diğer yandan Urgency terimi Türkçeye çeviri zorluğu yaratmaktadır. Aciliyet yada ivedi durum bunun karşılığı olarak kullanılmakta ve bu kavramlar "müdahale edilme" algısını beraberinde getirmektedir.)</td></tr>
</table>

*Bu tabloda klinik olarak en sık karşılaşılan durumlar ele alınmıştır. Bunun yanı sıra subaraknoid kanama, Koroner bypass cerrahisi, Akut glomerülonefrit, Mikroanjiopatik hemolitik anemi … gibi daha az görülen durumlar dahil edilmemiştir.

Tablo2: Hedef Organ Hasarları Ve Tedavileri **(TEMD 2022)**

Klinik durum	**Zaman ve hedef KB**	**Birinci basamak tedavi**	İkinci basamak **tedavi**
TMA yada ABY'li olsun ya da olmasın malign HT Hipertansif ensefalopati	Birkaç saat, OAB %20- 25	Labetolol, nikardipin	Nitroprussid, urapidil
Akut iskemik inme (SKB >220 mmHg ya da DKB>110 mmHg)	Hemen, OAB %20-25	Labetolol, nikardipin	Nitroprussid
	1 saat, OAB %15	Labetolol, nikardipin	Nitroprussid
Trombolitik tedavi endikasyonu olan akut iskemik inme (SKB>185 mmHg ya da DKB>110 mmHg)	1 saat, OAB %15	Labetolol, nikardipin	Nitroprussid
Akut hemorajik inme ve SKB >180 mmHg	Acil, 130<SKB<180 mmHg	Labetolol, nikardipin	Urapidil
Akut koroner sendrom	Acil, SKB<140 mmHg	Nitrogliserin, labetolol	Urapidil
Akut kardiyojenik pulmoner ödem	Acil, SKB>140 mmHg	Loop diüretigi ile beraber nitrogliserin ya da nitroprussid	Loop diüretiği ile beraber urapidil
Akut aort hastalığı	Acil, SKB <120 mmHg ve kalp hızı <60/dakika	Esmolol ve nitroprussid ya da nitrogliserin ya da nikardipin	Loop diüretiği ile beraber urapidil
Eklampsi ve ağır preaklampsi/ HELLP sendromu	Acil, SKB<160 mmHg ve DKB >105 mmHg	Labetolol ya da nikardipin ve magnezyum sülfat	

TMA: Trombotik Mikroanjiopati, OAB: Ortalama Arter Basıncı, HT: Hipertansiyon, SKB: Sistolik Kan Basıncı, DKB: Diastolik Kan Basıncı

Klinik olarak daha sık karşılaştığımız ise HOHnın eşlik etmediği KB yüksekliğidir. Çalışmalarda bu hastalar için acil servislerde KB müdahalesinin mortalitede fark yaratmadığı gösterilmiştir. Buna istinaden kılavuzlar acil şartlarda tedavinin gerekli olmadığını akut HOH kanıtı olmayan hastaların eve taburcu edilebileceğini belirtseler de potansiyel medikolegal sorunlardan doğabilecek sorunlar için sıklıkla acil servislerde tedavi ve planlama yapılmaktadır.

Hangi Baş Dönmesi Acildir? Dönen Ne?

Uzm.Dr.Derya Öztürk

Şişli Hamidiye Etfal EAH, İstanbul

Giriş: Denge bir katı cisim için cisme etkiyen bileşke kuvvet vektörünün ve bileşke moment vektörünün sıfır olmasıdır. Newtonun hareket yasalarına dayanarak göre havada sabit hızda yol alan bir uçak veya sabit eksende sabit açisal hızla dönen bir topaç dengededir. Vücud ağırlık merkezi dururken ya da hareket halinde iken dayanma düzlemi içinde tutulur. 6. duyu olarak tanımlanabilir. Başdönmesi; kendi içinde birçok etiyoloji içeren bir semptomdr. Acil servislerde 40 yaş üstü sık başvuru nedenlerindendir.

Tanımlamalar ve Semptomlar; Kendisinin veya çevresinin donuyor olması hissi (Vertigo). Etraftaki objeler hareket ediyor. Yer yükselip alçalıyor. Boşlukta gibi olma hissi (Dizziness). Başta hafiflik duygusu veya boşluk hissi (Lightheadedness). Ayağının altından yer kayıyormuş hissi (İmbalance). Bayılacakmış gibi olma hissi (Presenkop). Halsizlik güçsüzlük yürüme bozukluğudur. Hareket olmaksızın olan hareket algısı; Bulantı ve/veya kusma ile birliktedir, işitme kaybı, tinnitus olabilir, *Şiddetlidir, ani başlar, kısa sürede kaybolur ve bir süre sonra eskiyebilir.*

Fizik Muayene; Tam sistemik muayene yapılmalı ve vital bulgular değerlendirilmelidir. Karotis üfürümü, kardiyak üfürüm açısından oskulte edilmeli ve ayrıntılı nörolojik muayene (Kas gücü, Serebellar testler, Kafa çiftleri muayenesi, Ataksi, Rhomberg, Parmak burun testi, Disdiadokokinezi) yapılmalıdır. Otolojik-Odyolojik muayene ve Nistagmus Değerlendirilmesi (Dix hillpike, Head thrust testi, Kalorik test) uygulanmalıdır. Nistagmus; Vertikal, Rotatuar ve Horizontal olabilir. Nistagmusun hızlı fazı korteks kaynaklıdır ve düzeltici bir hareket olarak ortaya çıkar.Yavaş fazı ise semisirküler kanallar yardımı ile ortaya çıkar. Hızlı faza göre isimlendirilir; Tek başına vertikal nistagmus beyin sapı patolojisini işaret eder.

HINTS (Head Impulse, Nistagmus, Test Of Skew);Yatak başı yapılan 3 test ile periferik-santral vertigo ayrımı yapılır. Spesifite %96, Sensivite %100 dür. Tek başına head impulse testinin sensivite/spesifitesi MR'a yakın. Test şu şekilde yapılır. Hasta hekimim burnuna bakar, baş 15 derece sağa / sola çevrilir, hastanın hekimin burnuna bakmaya devam etmesi istenir, hasta burna bakmaya devam ederse test normal, Gözler hedefi kaçırır, sonrasında düzeltici göz hareketi oluşursa (sakkad) test anormaldir, Sakkadlar jerk tarzında sıçrayıcı göz hareketlerdir. Periferik tip nistagmus horizontal ***düzlemde, tek yönde, yorulma eğilimi gösteren özelliktedir.*** Santral tip nistagmus ise vertikal ya da rotatuar ***karakterde olur yön değiştirir ve yorulmayan özelliktedir.***

Görüntüle ve Laboratuvar:

- Labirintit ; Hemogram, Kan Kültürü
- Presenkop, Lightheadneses; Hemogram, EKG, Holter, Glukoz, Elektrolitler, BFT, Tilt Testi
- Yaşlı ve dizziness; Hemogram,Elektrolitler, BFT, Glukoz
- Kafa travmas; BBT
- Santral vertigo; BBT, MRG
- Vertebral Arter Diseksiyonu; MR Anjiografi
- Vertebrobaziller yetmezlik; Karotis Doppler, MR-MR Anjiografi

Çeşitli periferik vertigo nedenleri:

Benign Paroksismal Pozisyonel Vertigo (BPPV); En sık periferik vertigodur. 50'li yaşlarda sık ***görülür.*** Utrikülden serbestleşen partiküllerinin (kanalolitiazis) semisirküler kanallarda birikimi sonucu oluşur.Semptomlar ani başlangıçlıdır, şiddetlidir, Pozitif Dix Hillpike Testi mevcuttur. Oturma, ayağa kalkma, yatakta dönme, öne eğilme, yukarı bakma vertigo oluşturur. Bulantı ve kusma eşlik edebilir.

Vestibüler Migren;Sık ***görülür 5*** dak- 3 gün süren en az 5 atakYaşam boyu prevelansı %3,2, TİA ile karışabilir, motor bozukluk ve konuşma bozukluğu oluşur ise inme açısından değerlendirilir.

Vestibüler Nörit; Anamnez ve muayene bulguları tipik, Başlangıçta, spontan tek yöne vuran horizontal nistagmus, ilerleyen saatlerde: Sağ/sol bakış yönünde horizontal nistagmus, Head-Thrust testi pozitif, Akut vestibüler sendroma sebep olur; En az 24 saat süren (BPPV,TİA,Meniere ***dışlanır)*** vertigo, bulantı,kusma, spontan nistagmus, baş hareketlerine intolerans, dengesiz yür***ü***yüş ile seyreden semptom kompleksidir.

Ménière Hastalığı;Tekrarlayıcı vertigo, duyu kaybı ve tinnitus atakları ile karakterize, 40-60 yaş, erkeklerde sık, aynı ailede görülme oranı %9, Ataklar 20 dakika -12 saat (sıklıkla 2-8 saat), ataklar sırasında odiyometrik testlerde düşük-orta frekanslı seslerde duyma kaybının tespit edilmesi önemlidir.

Çeşitli santral vertigo nedenleri:

Geçici ***İskemik*** Atak; Dakikalar süren baş dönmesi (sıklıkla 60 dk altında), ataksi, yan güçsüzlüğü, çapraz paraziler, dizartri ***eşlik edebilir***. "Gözden kaçma ihtimali yüksek, acil serviste asemptomatik olabilir ve Nörolojik muayene bulguları tamamen normal olabilir.

Serebellar ***İnfarktlar;***Labirint infarktı (Tek başına, kohlear infarkt ile birlikte veya beyin sapı ve serebellar infarkta ***eşlik edebilir. Çoğunlukla*** anterior, inferior cerebellar arter oklüzyonu sebep olur. Ani gelişen vertigo, baş ağrısı, bulantı-kusma, ataksi, romberg testi ve tandem yürüyüşü anormal, medullanın korunduğu PICA infarktları vertigo ve ipsilateral ataksi ile başlar. Kalorik yanıtlar normaldir. Bakış yönüne nistagmus vardır.

Wallenberg Sendromu; Beyin sapının lateral medüller infarktı, ***İpsilateral*** fasiyal uyuşukluk, kornea reflex kaybı, horner sendromu, Yutma güçlüğü, ses bozukluğu, Sıklıkla Vertebral arter oklüzyonuna bağlıdır. Vertigo vestibüler nukleusların tutuluşuna bağlı oluşur. Saf rotatuarveya horizontal+rotatuar nistagmustur.

Serebellar Hemoraji; Akut başlangıçlı vertigo, baş ağrısı, yürüme bozukluğu, bulantı, kusma ile başlar. Horizontal nistagmus ve ***şpsilateral*** ataksi ***görülür***. Mortalite %20-74 arasındadır.

Serebellopontin ***Köşe Tümörleri;*** Menengiom, metastatik karsinom ve akustik norinom (Önce işitme kaybı, tipik vertigo yerine dengesizlik-vestibuler hipofonksiyon, baş agrısı ve kraniyal sinir tutulumu olabilir)

Vertebral Arter Disseksiyonu; Boyun ani ve şiddetli rotasyonu veya ekstansiyonu sonucu disseksiyon gelişebilir. Ani baş ve boyun ağrısı ile beraber dizziness, Travma risk faktörüdür. 50 yaş altında sık görülür.

Multipl Skleroz; Demiyelizan hastalık, birkaç gün, saatler süren başdönmesi, ataksi, optik nevrit, epizodik vertigo ve kronik dengesizlik, işitme kaybı eşlik edebilir. %5 hastada görülebilir. Hastalık seyri sırasında görülür.

Sonuç; Acil servislere başvuran başdönmesi olgularında sistemik hastalıklarla birlikte özellikle mortalite ve morbiditeye yol açabilen santral vertigo nedenleri unutulmamalı. ***İyi bir*** anamnez ve ayrıntılı fizik muayene ile birlikte radyolojik görüntüleme uygun hastada planlanmalı

HANGİ EKG ZOR?

Dr.Öğrt.Üyesi Ahmet DEMİR

MSKÜ Tıp Fakültesi, Acil Tıp Anabilim Dalı

Tablo 1 EKG'den faydalandığımız alanların bazıları

Ritim	İleti	Hipertrofi	İnfarkt	Elektrolit bzk - Kritik bakım
Sinüs ritm A.Flatter-AF Ektopik atr.ritm Atriyal taşikardi Sinüs taşikardisi SVT AVRT-AVNRT Kavşak ritm VT – VF Atriyal erken atm Ventriküler erken atım Bigemine Ventriküler pace Atrial pace Sinüs bradikardi	AV bloklar Dal blokları Aks Kısa-Uzun QT Wolf PW Torsade de point.	Ventriküler Sağ - Sol vent. Atrial Enlarg. Sağ – Sol atrim	Anterior Septal İnferior Posterior Lateral ST yükselmesi ST depresyonu	Hipo/hiper K Hipo/hiper Ca Hipo Mg İntoksikasyon PRIS Perikardit

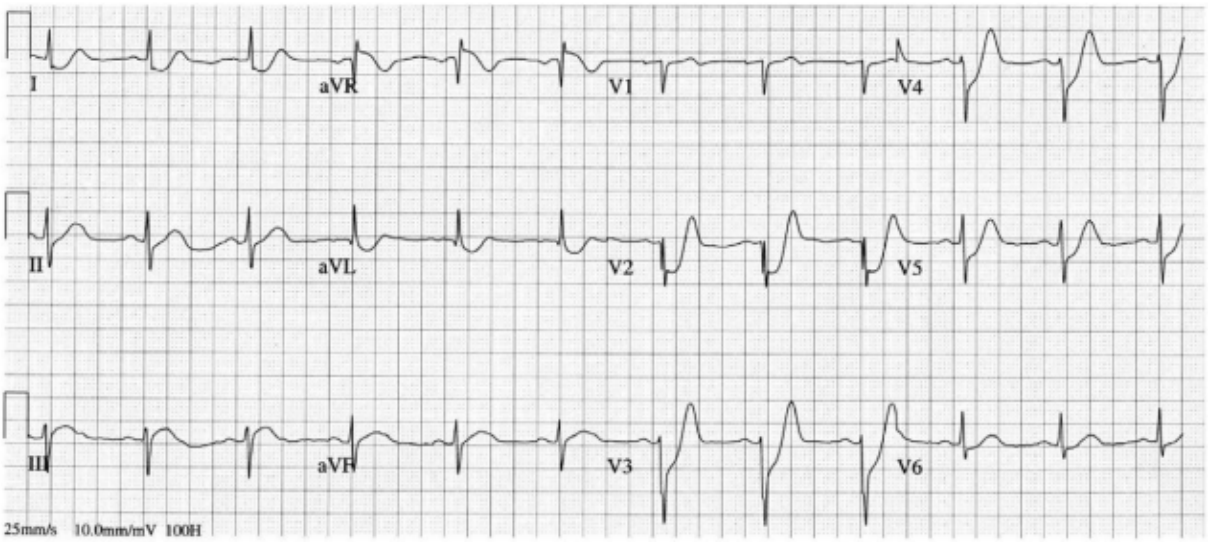
Ekg den faydalandığımız alanlardan bazılarını tabloda paylaşmaya çalıştım. Gerek bu tabloda yer alan gerekse de almayan noktalarda çok fazla sayıda zor EKG örneği bulmak,üretmek mümkün

Hangi EKG zor ? sorusunun cevabı çeşitli bakış açılarına göre farklılık gösterebilmektedir. Ben de bu soruyu " öyküsünü ve muayene bulgularını bilmediğimiz , kliniğine ve laboratuar paremetrelerine hakim olmadığımız her vakanın EKG'si zor olabilir" seklinde yanıtlamak istiyorum.

Sizlerle bügün dört EKG paterni hakkında konuşmak istiyorum.

Vaka 1

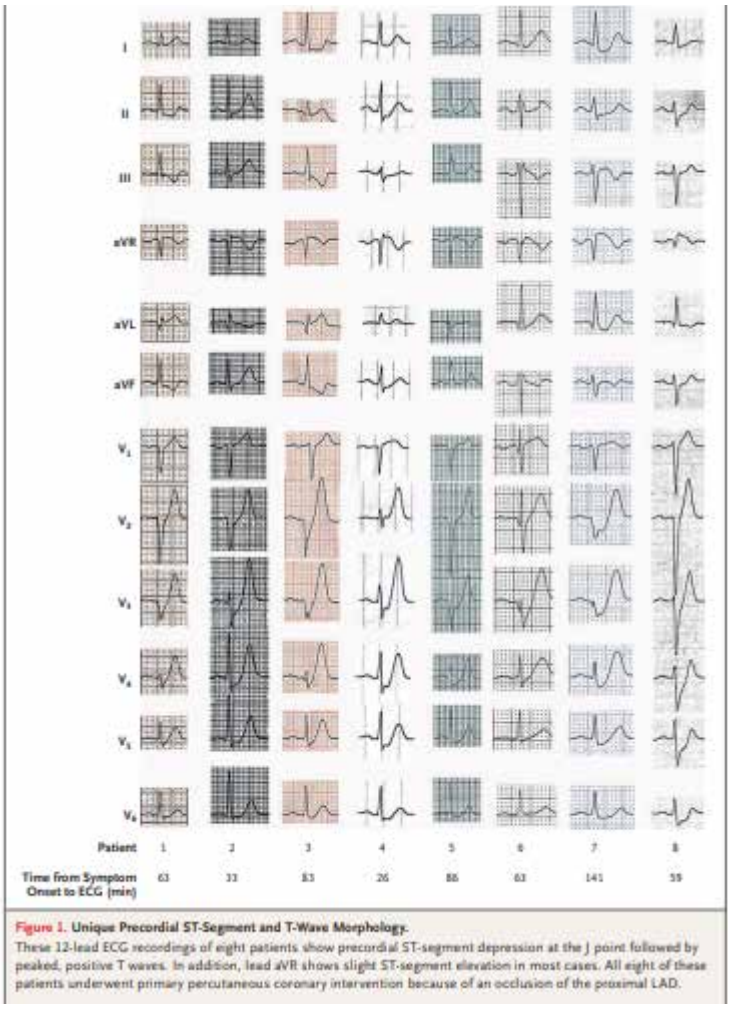
57y,E, ani başlayan substernal göğüs ağrısı ile acile başvuruyor TA:104/62mmHg , Nbz:72/dk, trop:<0,04ng/l ,K:4,01mmol/L



De Winter EKG paterni

De Winter paterni, LAD tıkanıklığının akut prezentasyon şekillerinden bir tanesidir

Anterior MI %2-3,4 'ünde gösterilmiş



Şekil 1 De Winter EKG paterni

Belirgin ST elevasyonu oluşmadan var olan anterior STEMI (LAD akut oklüzyonu) **ekivalanıdır**

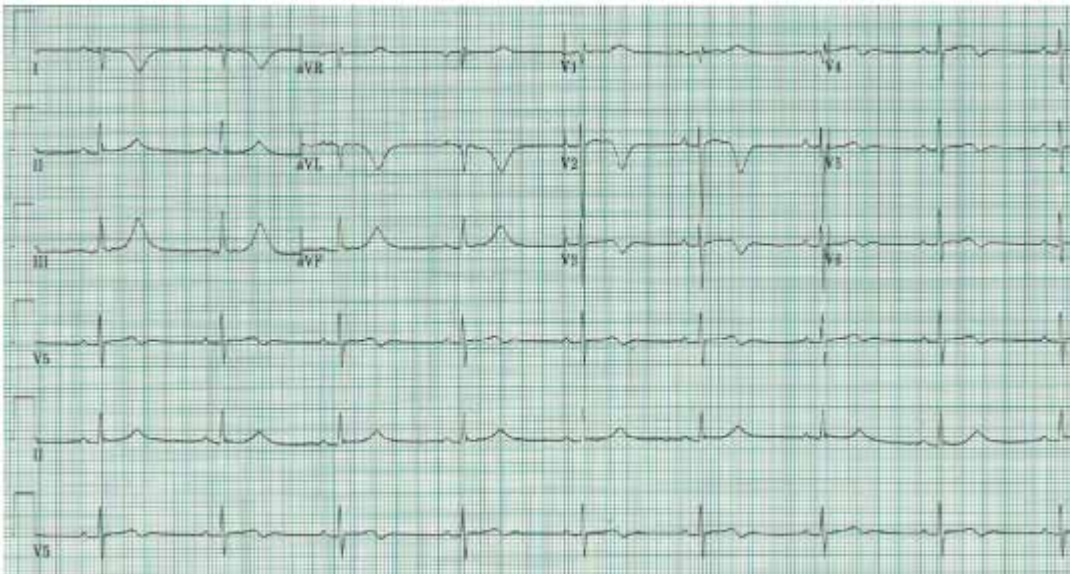
Göğüs (prekordiyal) derivasyonlarda J noktasında > 1 mm yukarı eğimli ST segment depresyonu ve devamında uzun,simetrik T dalgaları ile karekterize olarak tanımlanıştır

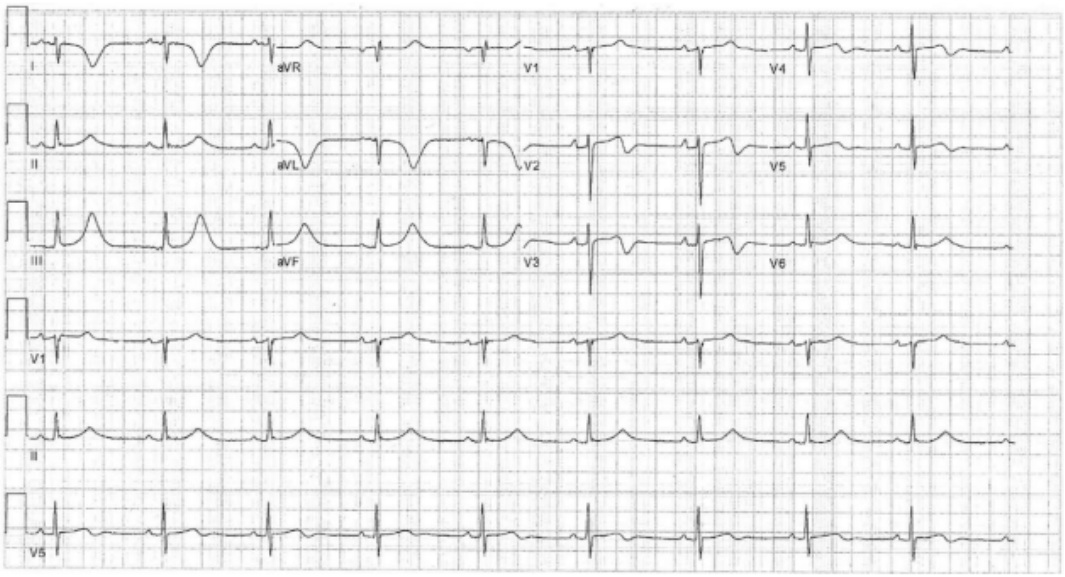
- *Prekordiyal derivasyonlarda ST elevasyonu yokluğu (tekrarlayan EKG de)*
- *aVR'de ST segment elevasyonu (0.5 mm-1 mm)*
- *Prekordiyal derivasyonlarda R dalga progresyon kaybının yanı sıra normal süreli (veya hafif genişlemiş) QRS kompleksleri*

de tabloya eşlik etmektedir

Vaka 2

77y, E, 4 saattir olan göğüs ağrısı ve nefes darlığı.DM(+)





Wellens sendromu

Wellens sendromu;LAD tıkanıklığı için oldukça spesifik olan, V2-3 derivasyonlarında derin, ters dönmüş veya bifazik T dalga patternidir

Hastalar acil servis başvurularında ağrısız ve genellikle kardiyak enzimler normaldir veya hafif yüksek

Unstabil anjina vakalarının %14-18'inde wellens send. eşlik etmektedir

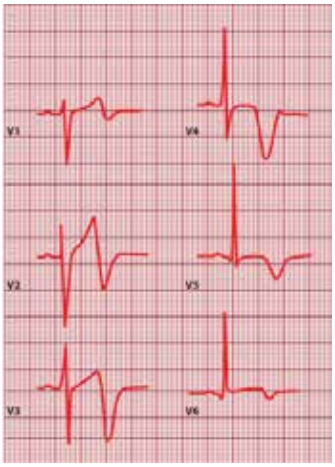
Medikal tedaviden fayda görmez,invaziv işlem gerekir

Sadece medikal tedavi uygulanırsa yada hiç tedavi uygulanmaz ise birkaç gün veya hafta içerisinde yaygın anterior duvar MI ve ölüm açısından çok yüksek risk

Bu nedenle bu EKG bulgusunu tanımak önemli

V2 ,V3'de derin ,ters dönmüş T dalgası (V1-V6) VEYA bifazik T dalgası (başlangıç pozitif,terminal negatif)

- İzoelektrik veya minimal eleve (<1mm) ST segmenti (akut STEMI bulgusu yok)
- Prekordiyal derivasyonlarda R dalgası progresyonunun korunması VE Q dalgası olmaması (eski ön duvar MI belirtisi yok)
- Yakın tarihli göğüs ağrısı öyküsü
- Ağrısız dönemde EKG paterni bulunması
- Normal veya hafif yüksek kardiyak markır



Özellikle genç, risk faktörü bulunmayan hastalarda kokain ve esrar kullanım "pseudo Wellens sen."

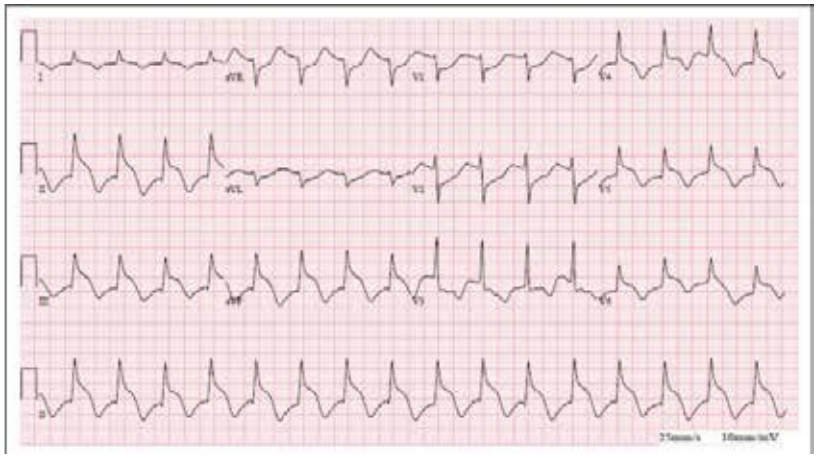
Vaka 3

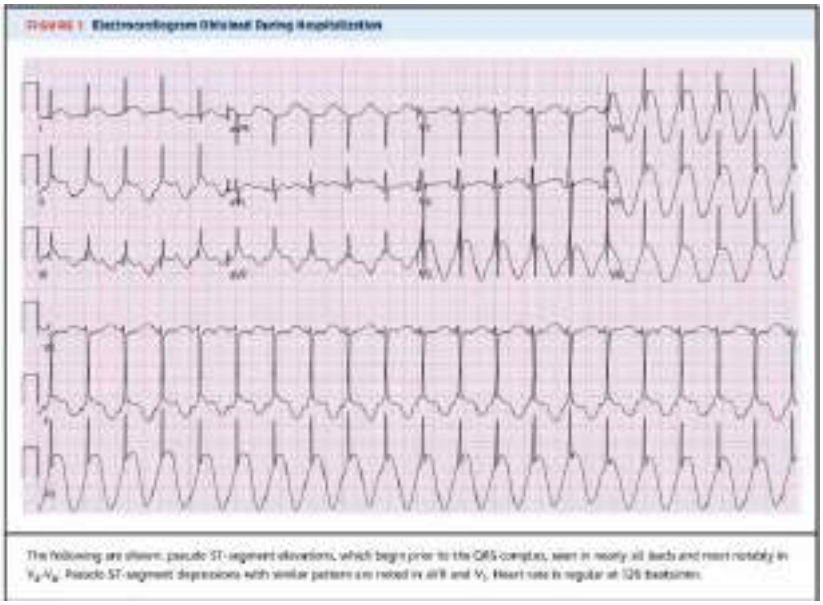
35y, K, septik şok için acil Y.B,Sağ el apse (i.v ilaç bağımlı)+streptokok bakteriyemi

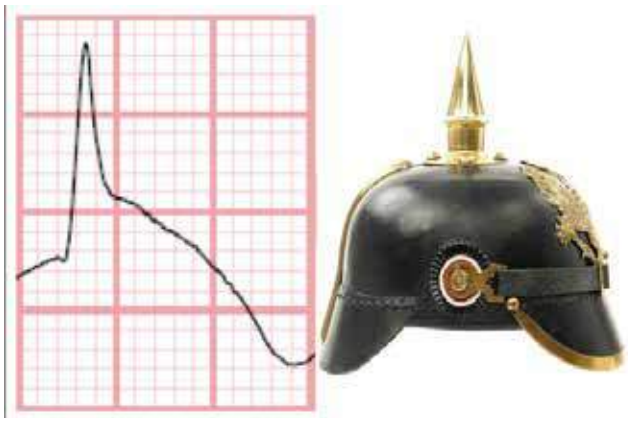
TA:75/55mmHg, pH:7,13,pozitif inotrop alıyor,entübe

Transözefagial EKO: triküspitte vejetasyon,haif-orta yetm

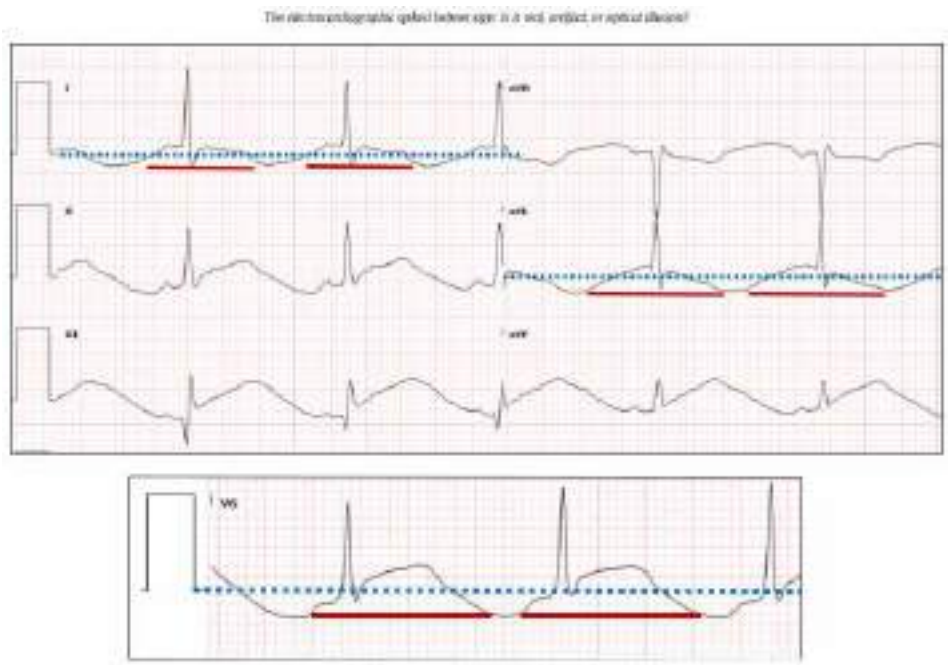
BT: akc. de septik emboli



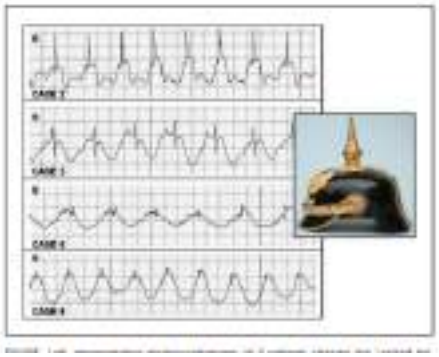




Şekil 2 Spiked Helmet Sign



The "Spiked Helmet" Sign: A New Electrocardiographic Marker of Critical Illness and High Risk of Death



Spiked Helmet Sign

İlk olarak 2011 yılında Littmann ve ark.

Erken fark edilmesi hayat kurtarıcı olabilecek,nonkardiyak mortal olabilecek kritik hastalıkların önemli bir belirtecidir

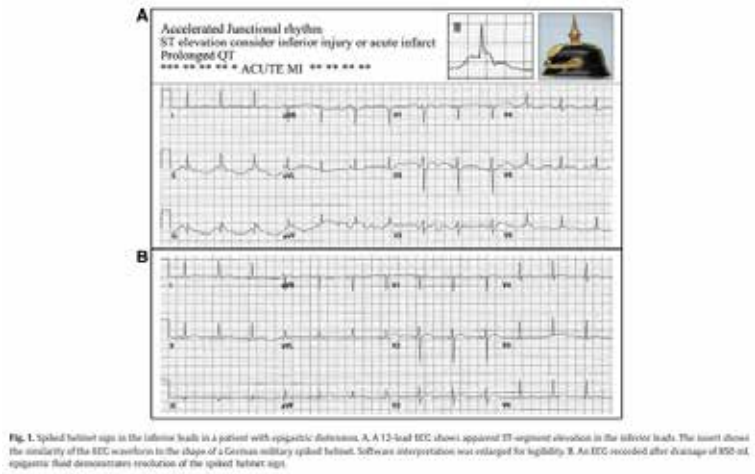
Kritik hastalarda hastane içi yüksek mortaliteyle ilişkili

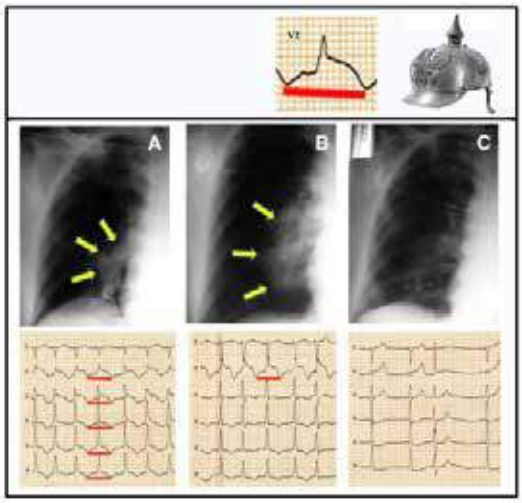
Spiked Helmet Sign (SHS), "Çivili Miğfer İşareti", olarak adlandırılan ST segment yükselmesi

EKG'de kubbe şeklinde bir ST-segment yükselmesi ile karakterize

İzoelektrik hat QRS den önce yükselir,keskin bir R ve dış bükey ST elevasyonu

İntrakaviter basınçta akut artışa bağlı pulsatil epidermal gerilme sorumlu tutulsa da henüz tam olarak açıklanamamıştır





Beyin , kalp, akciğer veya batın içi patolojilerde ayrıca sepsis veya majör travması olan hastalarda tanımlanmıştır

Kalabalık ve kaotik acil şartlarında ölümün yaklaştığının göstergesi olarak kabul edilmeli

İnferior derivasyonlar; abdominal basınç artışını(ileus,barsak perf., gastrik distansiyon),

Göğüs derivasyonları; intratorasik basınç artışı(TA Px,aort rüptürü)

1-10 gün (5,5 gün ortalama)

Altta yatan neden tedavi edilirse geri dönüşümlü

Vaka 4

38y,E ,GİS Tm bulunan hasta ateş,siddetli akc.enf. ile acile sevk ediliyor

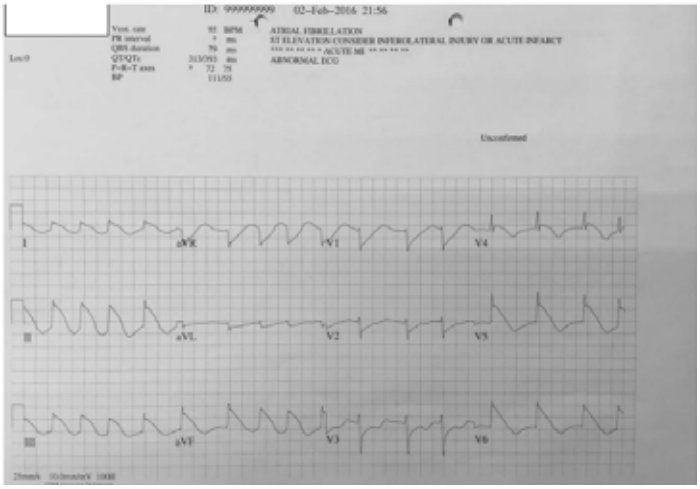
EKG: Sinüs taşikardisi

Takibinde respiratuvar asidoz gelişiyor ve entübe edilerek acil YB yatırılıyor

Derin sedasyon ve ventilasyonu sağlamada güçlük çekildiği için yüksek doz propofol (100µg/kg/dk) infüzyonuna geçiliyor

Kan kültrü :staf(+),vanko+moropenem başlanıyor

5. gün,entübe,klinik durumda değişiklik yok,YB rutin EKG



- CK:3200
- Laktat 2,8mmol
- Trop:78 sınırda yüksek
- EKO: EF%45,duvar hareket kusuru yok
- AF+ vent. Hız 95/dk,
- DI,II,III,aVF,V4-6 Keskin down sloping ST elevasyonu
- Metoprolol ve nitrat başlansa da EKG ye etkisi olmuyor

Propofol-Related Infusion Syndrome (PRIS)

Sendrom;kritik hastalarda, yüksek doz propofol infüzyonu , laktik asidoz ve rabdomiyoliz ile karakterizedir

1992 de ilk kez tanım

2006 yılında FDA etiket bilgilerini güncelledi, propofolün sedasyon için maksimum dozunu saatte 4 mg/kg olarak sınırladı

Propofol infüzyonu alanlarda insidans %1,1

PRIS ölüm oranı %64-80, %18 - %30

Ne kadar erken tanınırsa o kadar hayatta kalma şansı

- PRIS, propofol infüzyonu sonrasında aşağıda yer alan durumlardan herhangi birinin varlığında meydana gelen, asistoliye ilerleyen akut bradikardi durumu;

- *Metabolik asidoz (base excess > 10 mmol)*
- *Miyoglobinüri*
- *Rabdomyoliz*
- *Böbrek yetmezliği*
- *Lipemik plazma*
- *Karaciğer yağlanması*
- *EKG'de Brugada-tipi paternler*

• Risk Faktörleri

- Doz>4mg/kg/saat (83µg/kg/dk)
- İnfüzyon süresi>48 saat
- Eşzamanlı vazopresör tedavisi
- Eşzamanlı steroid tedavisi
- Mitokondrial bozukluklar
- Düşük glikojen depolarının olması
- Nörolojik bozukluklar (TBI,Status Ep.)

Kaynaklar

RESUSCITATION UPDATES: AIRWAY-BREATHING

Prof Dr Ali Kemal ERENLER

Hitit University, School of Medicine, Department of Emergency Medicine

An accurate **basic life support** (BLS) begins with providing safety of the rescuer and the victim. Cardiopulmonary resuscitation (CPR) must be initiated in every person "unresponsive with absent or abnormal breathing". Emergency Medical Services must also be activated via a cell phone on "hands-free" mode. Head-tilt and chin lift maneuvers must be applied and look-listen-feel examination should not take more than 10 seconds. High quality and continuous chest compressions (with a rate of 30 compressions and 2 breaths) and use of automated external defibrillator as soon as possible are the mainstays of a successful CPR.

In case of choking, as a part of BLS, the victim must be encouraged to cough until fatigue develops. Five back blows must be followed by 5 abdominal thrusts. These maneuvers must be repeated and CPR must be initiated when necessary (1).

In **advanced life support** (ALS), the rescuer must aim for less than a 5 second interruption in chest compression for tracheal intubation (TI). Direct or video laryngoscopy for TI according to local protocols and rescuer experience should be selected. Tube position should be confirmed by wave capnography. Once a tracheal tube or a supraglottic airway (SGA) has been inserted, the lungs must be ventilated at a rate of 10 per minute and chest compressions must be continued without pausing during ventilations. Additionally, bag-mask ventilation or an advanced airway strategy during CPR for adult cardiac arrest in any setting is recommended. If an advanced airway is used, an SGA is suggested for adults with out-of-hospital cardiac arrest (OHCA) in settings with a low TI success rate. If an advanced airway is used, SGA or TI for adults with OHCA in settings with a high TI success rate is suggested. Oxygen concentration should be titrated to maintain the arterial blood oxygen saturation between 94-98%. (2).

In **pediatric basic life support**, 5 initial rescue breaths are given. When available, balloon mask ventilator should be used. Unlike adults, help should be called after 1 minute CPR. In case of choking in pediatric patients, if the child is still conscious but has ineffective coughing, back blows must be given. If back blows do not relieve the foreign body, chest thrusts to infants or abdominal thrusts to children should be given.

Pediatric advanced life support begins with the recognition of the cardiac arrest. Risk of intubation failure is significantly higher than adults and hypoxemia should be avoided. It must be kept in mind that cricoid pressure is not recommended (3).

In **COVID-19 patients**, a seperate area with minimal personnel must be provided when CPR is needed. All standart protective measures must be taken and a team work would be helpful to avoid prolongation of the procedure and consequent virus spread. When TI is required, video laryngoscopy should be the first choice (4).

References

1. Olasveengen TM, Semeraro F, Ristagno G, et al. European Resuscitation Council Guidelines 2021: Basic Life Support. Resuscitation. 2021;161:98-114. doi:10.1016/j.resuscitation.2021.02.009

2. Soar J, Böttiger BW, Carli P, et al. European Resuscitation Council Guidelines 2021: Adult advanced life support [published correction appears in Resuscitation. 2021 Oct;167:105-106]. Resuscitation. 2021;161:115-151. doi:10.1016/j.resuscitation.2021.02.010

3. Van de Voorde P, Turner NM, Djakow J, et al. European Resuscitation Council Guidelines 2021: Paediatric Life

Support. Resuscitation. 2021;161:327-387. doi:10.1016/j.resuscitation.2021.02.015

4. Erenler AK, Komut S, Çapraz M, Baydin A. Airway management in patients with COVID-19: an updated guide for clinicians in the emergency department. Reviews and Research in Medical Microbiology 33 (4), 248-252

Yakını Kim ? Yaşlı İhmali ve İstismarı

DR. Fatih TANRIVERDİ

1- Ankara Yıldırım Beyazıt Üniversitesi Tıp Fakültesi Acil Tıp A.D.

2- T.C.S.B. Ankara Şehir Hastanesi Acil Tıp Kliniği

Giriş:

Yaşlılık, sözlük anlamı olarak yaşlı olma, artmış yaşın etkilerini gösterme hali olarak tanımlanmaktadır. Dünya Sağlık Örgütü (DSÖ) ise, yaşlılığı çevresel etmenlere uyum sağlama yeteneğinin azalması ya da büyük oranda kaybolması olarak tarif etmektedir. Takvim yaşı-yaşlılık; takvim yaşımıza göre yaşlılık sınırı; 64 yaşın bitimi, 65 yaşın başlamasıdır Yaşlılıkta 3 evre vardır:

•65-75 yaş arası erken yaşlılık evresi
•75-85 yaş arası; orta yaşlılık evresi
• 85 yaş ve ötesi; ileri yaşlılık evresi

Yaşlı İstismarı:

Uluslararası Yaşlı İstismarının Önlenmesi ve Dünya Sağlık Örgütü (DSÖ) Toronto Deklarasyonu'na göre yaşlı istismarı; "Yaşlı insanlara karşı, herhangi bir güven beklentisi içinde gerçekleşen, sıkıntı ve zarara neden olabilecek bir kez veya tekrarlanan hareket ve

Yaşlı istismarı en yüksek oranlarda kadınlarda ve 80 yaş ve üzerinde görülmektedir.

İstismarcı, olguların yaklaşık %90'ında bir aile üyesidir.

Yaşlı istismarına ilişkin yapılan sistematik bir incelemede, istismar yaygınlığının bilişsel olarak sağlam yaşlı yetişkinlerde %10 iken, demansı olanlarda bu oranın %47'ye kadar çıktığı bildirilmiştir. Toplumda yaşlı istismarının yaygınlığı %2-10 arasında değişmektedir.

Dünya Sağlık Örgütü (DSÖ) verilerine göre; 2019 yılında 60 yaş ve üstü kişilerin %15.7' sinin istismara maruz kaldığı tahmin edilmektedir. Ülkemizde ise yapılan araştırmalarda yaşlı istismarı sıklığı %14. 2 ve %18.2 olarak bildirilmiştir. Araştırmalar yaşlının istismar ve ihmale, en fazla kendi evinde maruz kaldığını, istismarcının ise çoğunlukla eşi ve çocukları olduğunu göstermektedir.Ancak yaşlı istismarı ve ihmali sadece aile içinde görülen bir durum olmayıp yaşlının hizmet aldığı kurumlarda da görülebilmektedir.Başkalarının neden olduğu istismar ve ihmal dışında yaşlının kendi kendini ihmal ettiği durumlara da rastlanmaktadır. 3 ana grupta incelenebilir. Ailesel yaşlı istismarı, yaşlı bireye kendi evinde ya da kaldığı başka bir ev ortamında kötü muamelede bulunulmasıdır. Kurumsal istismar, yaşlı bireylerin yaşamlarını sürdürmeleri için oluşturulmuş yerlerde (huzur evleri, yaşlı bakım evleri gibi) yaşlı bireye kötü muamelede bulunulmasıdır. Kendi kendini ihmal, yaşlı bireyin sağlık ya da güvenliğini tehdit eder bir şekilde, tek başına yaşama davranışını belirtir

Yaşlı İhmali ve İstismarı Çeşitleri

Fiziksel

Psikolojik

Cinsel

Ekonomik istismar şeklinde olabilir

Fiziksel İstismar:

Fiziksel zarar verme davranışını içerir. Vurma, yakma, itme gibi fiziksel yaralama, Aşırı ilaç yoluyla uyuşturma ya da uyutma, tıbbi olarak gerekli ilaçların fazla ya da yanlış verilmesi,

sandalye, oda ya da yatağa bağlama şeklinde görülebilir.

Fiziksel İstismar:

Yaşlı bireyin fiziksel istismara uğramış olabileceğini gösteren başlıca belirtiler;

Boyun ve kollardaki çürük, morluk gibi izler ,el ve ayak bileğindeki kamçı ya da halat izleri

tekrarlanan, açıklanamayan yaralar, yaralanma hakkındaki çelişkili, kaçamak ifadeler ve tutumlar

tekrarlanan yaralanmalarda aynı sağlık kurumuna gitmeyi reddetme gibi durumlardır.

Psikolojik İstismar:

Bağırmak, hakaret etmek, korkutmak, suçlamak, aşağılamak,huzurevine göndermek ile tehdit etmek, izole etmek,kendi kendine karar almasını engellemek, sindirme, sözlü taciz, sert emir şeklindedir. yaşlı da genel itibariyle sıkıntı, depresyon, acıya neden olur.

Başlıca psikolojik istismar belirtileri arasında; Bireyin cevap vermemesi, iletişim kurmaması

şüpheli ve mantıksız korku yaşaması,sosyal ilişkilerde ilgi eksikliği olması,kronik fiziksel ve psikolojik sağlık problemlerinin olması sayılabilir

Cinsel istismar

Cinsel istismar yaşlı bireyin isteği dışında, diğer deyişle bireyin kendi rızası olmadan herhangi bir cinsel aktiviteye zorlanmasıdır. İsteği olmadan dokunma, tecavüz, zorla soyunma, açık şekilde cinsellik içeren fotoğraf çekme gibi örnekler cinsel istismarı içerir. **Başlıca cinsel istismar belirtileri olarak;** Açıklanamayan anal ve vajinal kanama kanlı, yırtık giysiler göğüslerdeki çürük ve morluklar .Cinsel ilişki ile bulaşan hastalıklar ve vajinal enfeksiyonlar sıralanabilir

Ekonomik istismar

Zihinsel yetersizliği gösterilmeyen yaşlı bireylerin sivil ve hukuki haklarının ihlal edilmesi,

yasadışı ya da izinsiz olarak mallarının, parasının, banka/emeklilik hesabının ya da diğer değerli varlıklarının kullanılması ve değiştirilmesi, kendi evinden çıkartılması ve hile yolu ile vekâletname alınması ekonomik istismar örnekleridir. Sözü edilen bu istismar türlerini yapan kişiler kontrol ya da otorite pozisyonundaki herhangi bir kişi olabilir. Bu kişi eş, çocuk, akraba, arkadaş ya da komşu, gönüllü yardımcı, hizmetçi, sağlık görevlisi, sosyal hizmet görevlisi, yaşlı bakım çalışanı ya da çevredeki başka görevli kişi olabilir

Yaşlı İhmali:

Bakmakla yükümlü olan kişinin, yaşlıyı kasten veya olağan dışı bir dikkatsizlik sonucu gündelik yaşama devamını engeller biçimde eşit hak ve özgürlüklerden yoksun bırakmasıdır.

Yoksunluk hali; Yiyecek, giyecek, ısınma gibi temel gereksinimlerinin karşılanamaması,

Tıbbi tedbir ve müdahalelere ulaşamamasıdır.

İhmali Gösteren Belirtiler:

Yatak yaraları, herhangi bir rahatsızlığa bağlı olmayan aşırı kilo kaybı dehidratasyona bağlı böbrek sorunları. Bireysel hijyenin bozuk olması, mevcut belirtileri görmezden gelme ya da fazla açıklama yapma, gerekli ilaçların temin edilmiyor oluşudur.

Özet:

Yaşlı istismarı huzurevleri, bakım evleri ya da yaşadığı ev ortamında gelişebilir.

En fazla istismar ve ihmal bireyin yaşadığı ev ortamında gerçekleşmektedir.

Yaşlı birey ev dışına nadir ya da hiç çıkmayabilir, bu nedenle istismarı saklamak kolaydır.

Huzurevi ve bakım evlerinde denetim eksikliği, kurum çalışanları ve yaşlıların kaygıları nedeniyle sorunları görmezden gelme durumunda da ihmal ve istismar fark edilmeyebilir

Bir diğer istismar tanısındaki zorluk; hastane personelinin yaşlıda görülen ezik, morarma, malnütrisyon ya da içe kapanma gibi bulguların yaşlılığa bağlı olduğunu düşünmesi ve sorgulamamasıdır. Acil servis hekimlerinin yaşlı istismarının önlenmesi, belirlenmesi ve raporlandırılması konusunda sorumlulukları büyüktür ve bu konu hakkında farkındalıklarının artırılması gerekmektedir. İstismar TCK açısından suçtur. Tespit edildiğinde adli makamlara bildirim zorunludur.

Kaynaklar:

1. https://eapon.ca/wp-content/uploads/2021/09/toronto_declaration_en.pdf
2. https://www.uptodate.com/contents/elder-abuse-self-neglect-and-related-phenomena?search=elder%20abuse&source=search_result&selectedTitle=1~15&usage_type=default&display_rank=1
3. Lachs MS, Pillemer K. Elder abuse. Lancet 2004; 364:1263.
4. https://www.who.int/health-topics/abuse-of-older-people#tab=tab_1
5. Yaşlılarda ihmal ve istismar ile ilişkili faktörlerizmir ilinden bir örnek, s ç eryiğit doktora tezi, danışman prof. Dr. Güzel dişçigil. Aydın adnan menderes üniversitesi sağlık bilimleri enstitüsü yaşlı sağlığı anabilim dalı yaşlı sağlığı ve bakımı disiplinler arasıdoktoraprogram,aydın2022. http://adudspace.adu.edu.tr:8080/xmlui/bitstream/handle/11607/4652/Saadet%C3%87isenEryi%C4%9FitDRTez.pdf?sequence=3&isAllowed=y
6. Çiftçi H, Bostancı Daştan N, Kaya F. Acil Servisin Bilinmeyen-Görülmeyeni: Yaşlı İstismarı. Sted, 2020, cilt: 29, sayı: 3, S:213-220.
7. Gülen M, Aktürk A, Acehan S, Seğmen MS, Açıkalın A, Bilen A. Yaşlı İstismarı ve İhmali (Elder Abuse and Neglect). Arşiv Kaynak Tarama Dergisi (Archives Medical Review Journal) 2013; 22(3):393-407

Bone marrow edema in the knee after minor trauma: a case report

Mehmet Tahir Gökdemir[1] Gül Şahika Gökdemir[2]

[1]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin

[2]Diyarbakir Children's Hospital, Physiology, Diyarbakir

INTRODUCTİON

Bone marrow edema (BME) is characterized by pain and increased interstitial fluid in the bone marrow, with or without obvious cause [1]. It may be present in cases that present as a self-limiting lesion that resolves within months without specifying any underlying cause and no sequela can be detected. BME can often be involved in the hips, knees, ankles, and feet [2]. In the case of an underlying systemic disease, recurrent clinical presentation and migratory pain are usually observed. Bone marrow lesions of any cause occur, particularly in blood flow or impaired vascular drainage. This results in increased intraosseous pressure and decreased perfusion resulting in hypoxia. The change in bone marrow is assumed to be due to a local edema, but in reality there are limited studies confirming this [3]. Except for a limited number of case reports, we have seen that there are no comprehensive studies on this subject. The purpose of presenting this case is to raise awareness that persistent pain after minor trauma may be caused by BME.

CASE REPORT

A 52-year-old male patient admitted to the emergency department with the complaint of left knee pain. The patient initially had moderate pain when his left knee hit the edge of the wooden table while getting up from the dinner table. He did not care much about this pain, followed the periods of decrease and increase in the severity of pain. As this network, which lasted for about 3 months, got worse, the patient admitted to the emergency depatment(ED). In the clinical examination, there was no redness and swelling on inspection, but there was pain around the medial condyle of the left knee on palpation. The patient is receives monoclonal antibody Ig E treatment once a month for chronic urticaria and had a history of smoking. In addition, he did not have any chronic diseases. He was a physically fit person and was working as a health professional. The patient's height was 172 cm, weight 82 kg and body mass index 27,7. Vital signs; Systolic blood pressure was 115, diastolic blood pressure was 80 mm Hg, pulse rate was 82/min, fever was 37,3. It was noted that the left knee extension, flexion restriction and inversion-eversion movements were painful. No pathological finding were observed on two-way plain radiographs and computerized tomography (CT). T2 magnetic resonance imaging (MRI) revealed diffuse BME in the adjacent trabecular bone in the medial femoral condyle (MFC) and edema in the medial deep surrounding tissues. There were also no signs of synovial reaction, joint effusion, and articular cartilage damage in the knee (Figure 1). Bone density was within normal limits in bone mineral density (BMD) examination with dual energy radiography absorptiometry (DEXA). Laboratory studies measured normal serum calcium: 4.9 mg/dL, serum phosphate 3.5 mg/dL, 25-dihydroxyvitamin D 26 ng/mL (normal range 25-45 ng/mL),high-sensitivity C-reactive protein (Hs CRP): 13 mg/dl, and ferritin was 143 ng/Ml. In the hemogram results, biochemistry examination, hepatitis marker tests and anti-HIV result of the patient were normal. Tumor markers such as serum protein electrophoresis, prostate-specific antigen, carcinoembryonic antigen, CA 19-9, alpha-fetoprotein, beta-2-microglobulin were within normal limits.

A diagnosis of BME was made based on clinical and radiological findings. Treatment consisted of reducing pain, resting the affected side, and gradual exercise and weight application on the affected knee. We planned the details of the treatment as follows: 1. Rest, 2. controlled weight therapy continued under the guidance of a physiotherapist: partial weight to the left lower extremity with crutch gait and left knee range of motion exercises to

improve walking, 3. acetaminophen 500 mg three times daily for pain control, 4. transcutaneous electrical nerve stimulation, 5. hip abductors and a physical rehabilitation program consisting of external rotators, quadriceps muscle, and harstring muscle strengthening; and 6. Bisphosphonate therapy: Boniva 150 mg 1 tablet daily. In our case, there was a gradual decrease in the symptoms in the first 3 months and the patient started to walk moderately straight in 6 months. At the last clinical examination, he had no complaints such as pain and tenderness. However, he still complained of mild pain when climbing stairs and fast walking. Conservative treatment was continued and the complaints completely resolved in the seventh month. Radiographic examination was planned during follow-up. Knee movements were complete and painless. Radiological improvement was observed in the patient's left knee control MR controls (Figure 2). He did not have any complaints in the next six months follow-up. Informed consent was obtained from the patient and his family for the publication of this case report.

DISCUSSION

We present a 52-year-old male patient with left knee pain that gradually increased for about 3 months and was diagnosed with BME. BME is characterized by painful bone edema and inflammation associated with a variety of conditions[3,4,5]. BME cases with hypothyroidism and carbamazepine use history have been reported in previous studies [6,7]. In another case report, BME associated with pain in both feet and a compression fracture in one heel bone was reported after everolimus use [8]. Pimenta et al. presented a case of bone marrow edema in the knee accompanied by regional migratory osteoporosis not associated with trauma or other events [2]. In our case, there was a history of minor trauma to the left knee, and he had no known features other than being treated with monoclonal antibody Ig E due to chronic urticaria and smoking. He hit his left knee while getting up from the dinner table, it was severe pain at first, then it subsided. However, after about 15 days, there was an increase in knee pain. The pain progressed with an increase after walking. Complaints of intermittent relief and aggravation of pain with movement continued for about 3 months. Usually, plain radiographs or CT do not show sufficient findings for the diagnosis of BME. In conditions such as localized osteoporosis, osteomyelitis, or transient osteoporosis of the hip, there may be bone findings on CT or radiograph corresponding to BME. It may be accompanied by acute trauma, repetitive overload, and a fracture line that is often initially undetectable. In some cases, microfractures that are not visible on MRI could be accompanied by bone edema. In conclusion, MRI imaging is a good option for the diagnosis of BME. Initially, radiography was taken, then CT was taken, but no finding was observed in both radiological examinations. Later, MRI was taken and our case was diagnosed with anamnesis, clinical examination and MRI imaging. These injuries are most common on the medial femoral condyle, but can also be found on the lateral femoral condyle or tibial plateau. Our case also had a history of trauma to the medial femoral condyle and the localization was painful on palpation. Initially, the edema seen on MRI was thought to be due to the replacement of normal fatty bone marrow with a more water-rich material, but only a few studies have confirmed these findings at the microscopic examination. Studies reported that lymphocyte infiltrates, fibrosis, increased vascularization and decreased bone mineralization are the main factors in the development of BME[1]. There is more than one mechanism depending on the clinical diagnosis and there may be a spectrum where these findings coexist [9]. As a result, for whatever reason, edema usually develops in the bone marrow and a gradual increase in pain occurs. Although our case had a mild trauma history, there was no bone fracture image. Our case did not have any metabolic or chronic disease except smoking and IgE monoclonal antibody treatment history. Considering that smoking or IgE monoclonal antibody therapy is a low probability based on the available evidence, it is possible that knee trauma may have caused BME in our case.

Although treatment of BMEs varies according to etiology, bisphosphonates for increased bone resorption and remodeling have been proposed as a treatment for chronic BME [10]. Rolvien et al. suggested that bisphosphonates is highly effective in the treatment of patients with primary bone marrow edema [11]. In a study, a single subcutaneous dose of denosumab (60 mg) administered after weekly vitamin D treatment in patients with painful BME resulted in improvement of MRI findings in 50% of patients [2]. Oral non-steroidal anti-inflammatory drug

was started in the patient with mildly increased Hs-CRP. In addition, a tablet containing alendronate sodium and vitamin D3, alefort 70 mg/2800 IU, was given once a day. Rest, planned weight application and other physiotherapy methods were planned for the patient. After about 3 months, the patient started to perform a slow walking function, and at 6 months he started to walk at a moderate level.

In conclusion, metabolic osteoporotic factors, especially trauma, may play a role in the formation of BME. The physiopathological and clinical process may vary according to the etiological factor. The basis of treatment is rest and resolution of inflammation. Although there are limited number of reviv and case report studies on BME in the literature, there are not enough comprehensive studies. We hope that our case will contribute to the literature in this context.

KEY WORDS: Bone marrow edema, knee, minor trauma

REFERENCES

1. Akhavan S, Martinkovich SC, Kasik C, DeMeo PJ. Bone Marrow Edema, Clinical Significance, and Treatment Options: A Review. Am Acad Orthop Surg 2020;28: e888-e899. DOI: 10.5435/JAAOS-D-20-00142

2. Pimenta T, Parada F, Rocha JA. Bone Marrow Edema: A Case of Regional Migratory Osteoporosis. Am J Phys Med Rehabil. 2020;99(5):e60-e63. doi: 10.1097/PHM.0000000000001210.

3. Tarantino U, Greggi C, Cariati I, Caldora P, Capanna R, Capone A.et al. Bone Marrow Edema: Overview of Etiology and Treatment Strategies. J Bone Joint Surg Am. 2022;104(2):189-200. doi: 10.2106/JBJS.21.00300.

4. Eriksen EF, Ringe JD. Bone marrow lesions: A universal bone response to injury? Rheumatol Int 2012; 32:575-584.

5.Zhang Y, Qi H, Zhang Y, Wang J, Xue J. Vertebral bone marrow edema in magnetic resonance imaging correlates with bone healing histomorphometry in (sub)acute osteoporotic vertebral compression fracture. European Spine Journal 2021:30 (9):2708-2717. doi: 10.1007/s00586-021-06814-3.

6.Dhaliwal J, McConnell JS, Greer T. Bilateral transient osteoporosis of the hip in a 20-year-old man. BMJ Case Reports. 2014.

7.Iannò B, De Gori M, Familiari F, Pugliese T, Gasparini G. Transient osteoporosis of the hip with a contralateral delayed involvement: a case report. Clin Cases Miner Bone Metab. 2017; 14: 83-6.

8. McDevitt RL, Quinlan C, Hersberger K,Sahai V. Bone marrow edema associated with everolimus. Am J Health Syst Pharm. 2018;75(1):e23-e27. doi: 10.2146/ajhp170269.

9.Taljanovic MS, Graham AR, Benjamin JB, Gmitro AF, Krupinski EA, Schwartz SA et al. Bone marrow edema pattern in advanced hip osteoarthritis: Quantitative assessment with magnetic resonance imaging and correlation with clinical examination, radiographic findings, and histopathology. Skeletal Radiol 2008;37: 423-431.

10.Ringe JD, Dorst A, Faber H.Effective and rapid treatment of painful localized transient osteoporosis (bone marrow edema) with intravenous ibandronate. Osteoporos Int 2005; 16:2063-2068.

Acil Serviste Akut Dispneye Nasıl Yaklaşılmalı

Birdal Yıldırım

Greekçe' den derive edilen: Dys: Güç, zor…….Pnoia: Solunum. "Shortness of breath-SOB" sıklıkla tanımlanmakta.

Amerikan Toraks Derneği ise; Niteliksel olarak çeşitli yoğunlukta duyuların oluşturduğu öznel solunum rahatsızlığı deneyimi

Acil olmayandan, yaşamı tehdit eden durumlara kadar değişen ve şiddeti her zaman altta yatan patoloji ile korele olmayan bir çok durumu kapsar.

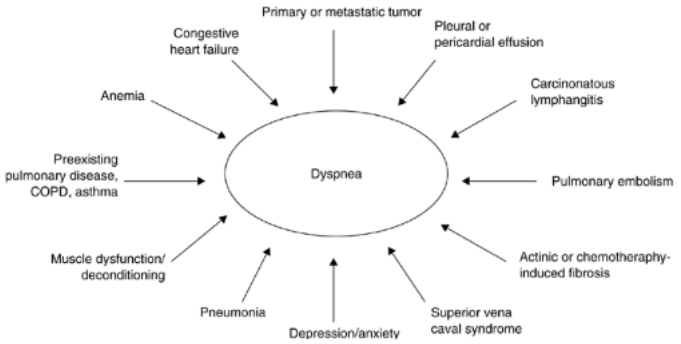
-Hipoksi, hiperkapni ve diğer aferent inputlara sekonder olarak (santral solunumsal uyarı artmasıyla)

-Oksijenasyon ve/veya asidemideki düzensizlikler

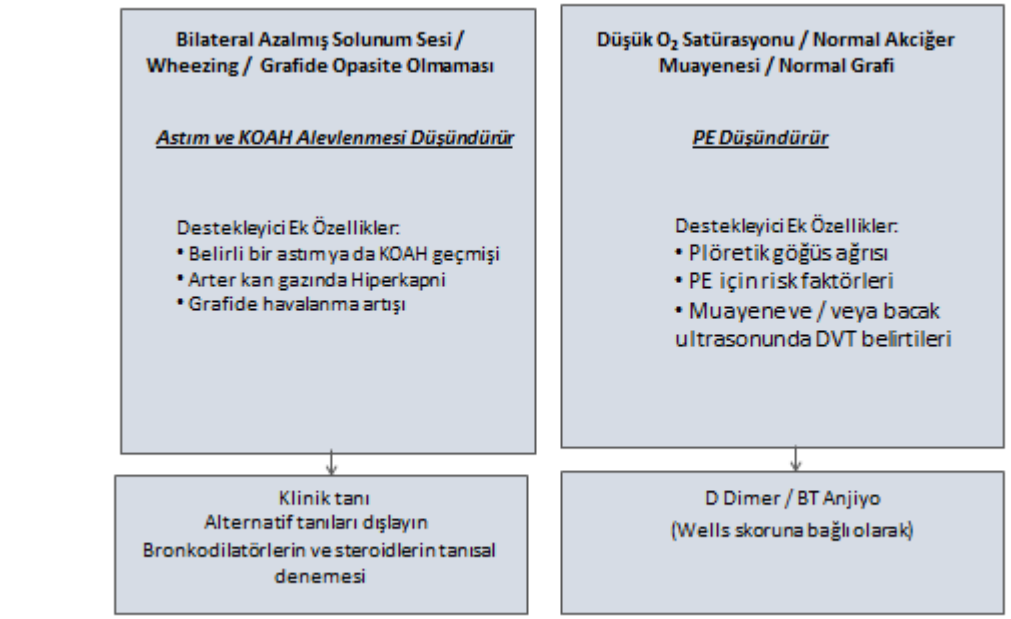
-Mekano-medulla-karotis reseptörlerin uygunsuz afferent stimülasyonları

-Solunum mekaniği kısıtlandığı veya zayıfladığı zaman bunun üstesinden gelmek için

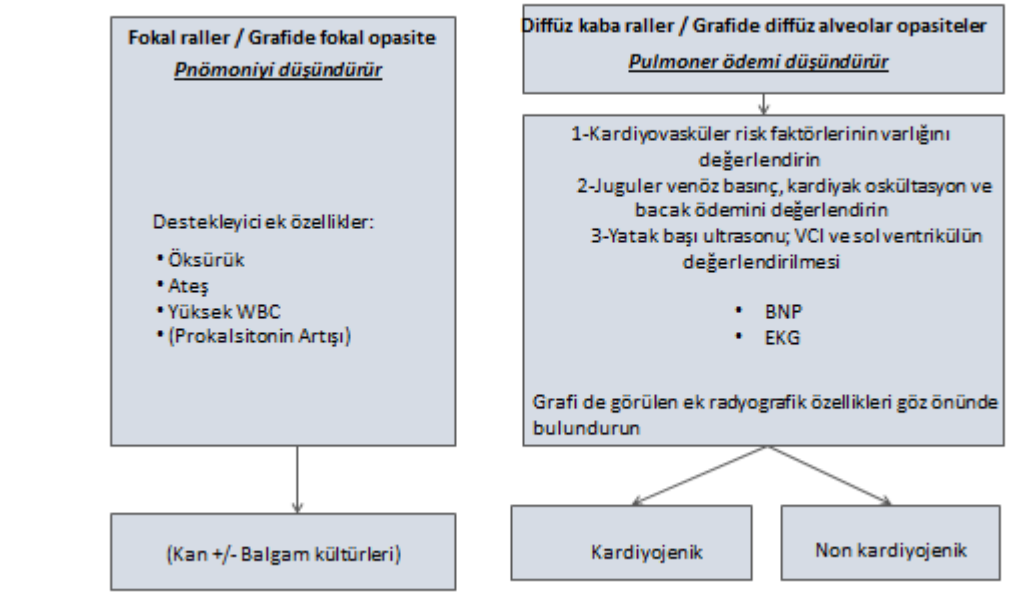
-karotis sinüs ve medulladaki kemoreseptörlerin efferent emirlerle kompanse etme süreçlerinin tamamı patofizyolojik olarak;



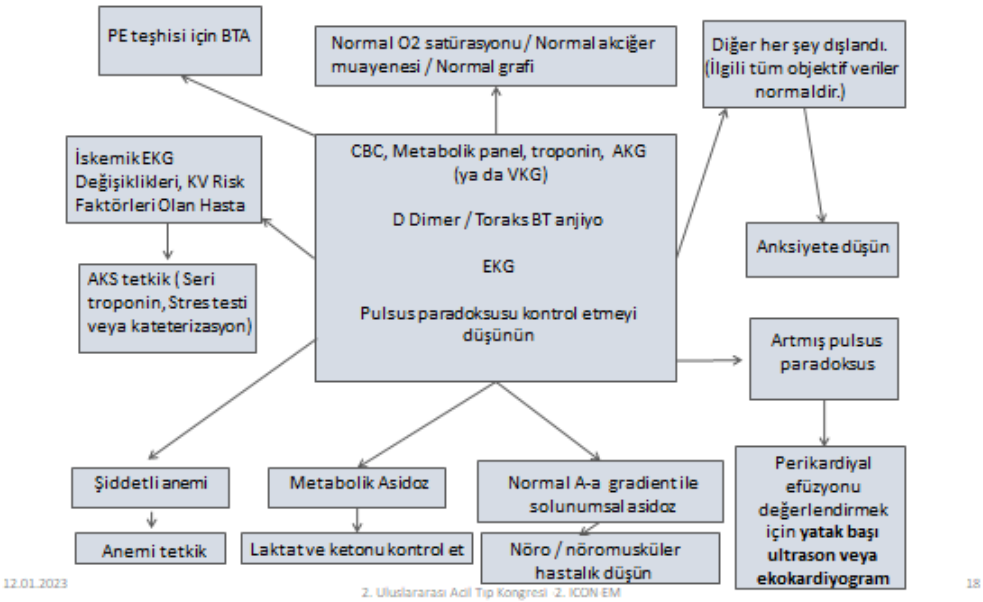
Farklı nedenleri acil servis koşullarında dikkatlice araştırarak etiyolojiye göre tanı ve tedavi sürecini organize etmek gereklidir.

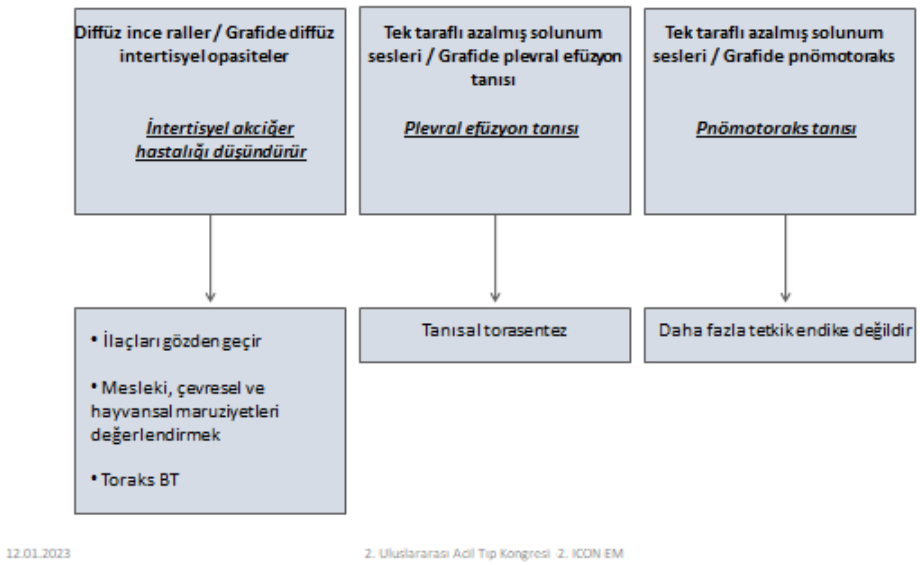


12.01.2023 2. Uluslararası Acil Tıp Kongresi 2. ICON EM 16



12.01.2023 2. Uluslararası Acil Tıp Kongresi 2. ICON EM 15





Kaynaklar:
Approach to the adult with dyspnea in the emergency department - UpToDate
Tintinalli_9edt
Rosen 9edt- Dispnea
https://basicmedicalkey.com/Dyspnea | Bascmedcal Key
Daniel Dumitrescu et al. Eur Respir Rev 2017;26:17003
https://oncohemakey.com/management-of-dyspnea/
https://acikders.ankara.edu.tr/mod/url/view.php?id=102147
https://tkd.org.tr/KYBulteni/?makale=12
https://docplayer.biz.tr/105951159-Acilde-dispneli-hastaya-tanisal-yaklasim.html
https://file.atuder.org.tr/_atuder.org/fileUpload/9g59LK3lGeFt.pdf

Non-ST elevation myocardial infarction

Dr. Mustafa ALTAY – emergency medicine specialist physcian

Hitit University, Erol Olçok education and research hospital

What is the definition of myocardial infarction (MI)?

According to the 4th universal definition of MI, it is acute myocardial injury with clinical evidence of acute myocardial ischemia with detection of a rise and/or fall of cTn (1 value above the 99th precentile URL + at least 1 of: symptoms of myocardia ischemia; new ishemiac ECG changes; development of pathological Q waves; imaging evidence of new loss of viable myocardium or new regional wall motion abnormality in a pattern consistant with an ishemic etiology; and identification of CA thrombus by angiography or autopsy.

What is acute coronary syndrome?

a term applied to patients in whom there is a suspicion or confirmation of acute myocardial ischemia or infarction.

Non-ST-elevation myocardial infarction (NSTEMI), ST-elevation MI (STEMI), and unstable angina (UA) are the three traditional types of ACS.

What is the difference between UA and STEMI?

Pathophysiologically speaking, atherosclerosis (formation of lipid plaques in the lumen of arteries) leads to partial occlusion of coronary artery that leads to occasional chest pain in effort or rest, ofr 15-20 minutes, in this case called unstable angina pectoris, or the occlusion could be total, causing the myocardial infarciton, which can come with an ST segment elevation in ECG; the STEMI, or without ST segment elevation giving the Non-STEMİ variation.

What is the differencial diagnosis of Non-STEMI?

Differential diagnosis of NSTEMI-ACS includes:

- **Nonischemic cardiovascular** causes of chest pain (eg, aortic dissection, expanding aortic aneurysm, pericarditis, pulmonary embolism)
- **Noncardiovascular** causes of chest, back, or upper abdominal discomfort include:
    - Pulmonary causes (eg, pneumonia, pleuritis, pneumothorax)
    - Gastrointestinal causes (eg, gastroesophageal reflux, esophageal spasm, peptic ulcer, pancreatitis, biliary disease)
    - Musculoskeletal causes (eg, costochondritis, cervical radiculopathy)
    - Psychiatric disorder Other etiologies (eg, sickle cell crisis, herpes zoster).

Risk stratificaiton scores:

Many systems or scores are used to risk stratify the UA/NSTEMI, being most used are the TIMI and GRACE scores.

GRACE Risk Score Variables	
In-hospital risk score	**6-month risk score**
1) Age	1) Age
2) Heart Rate	2) H/o Congestive Heart Failure
3) Systolic Blood Pressure	3) H/o Myocardial Infarction
4) Serum Creatinine level	4) Heart Rate
5) Killip class	5) Systolic Blood Pressure
6) Cardiac arrest at admission	6) ST-segment depression
7) Elevated cardiac markers	7) Serum Creatinine
8) ST-segment deviation	8) Elevated cardiac markers
	9) No In-hospital PCI

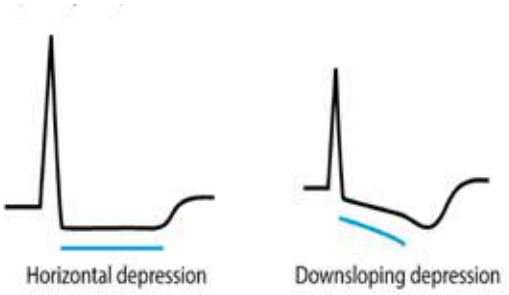
TIMI UA/NSTEMI RISK SCORE	
1) Age ≥65	1 point
2) ≥3 risk factors for CAD	1 point
3) Use of ASA (last 7 days)	1 point
4) Known CAD (prior stenosis ≥50%)	1 point
5) >1 episode rest angina in <24 h	1 point
6) ST-segment deviation	1 point
7) Elevated cardiac markers	1 point

The Sanchis score, Vancouver rule, Heart (History, ECG, Age, Risk Factors, and Troponin) score,HEARTS score, and Hess prediction rule were developed specifically for patients in the ED with chest pain (when the word "pain" encompasses not only pain, but also symptoms such as discomfort, pressure, and squeezing).

The ECG:

According to ***Teixeira et al***, 20% of NSTEMI patient can present to ED with normal ECG.

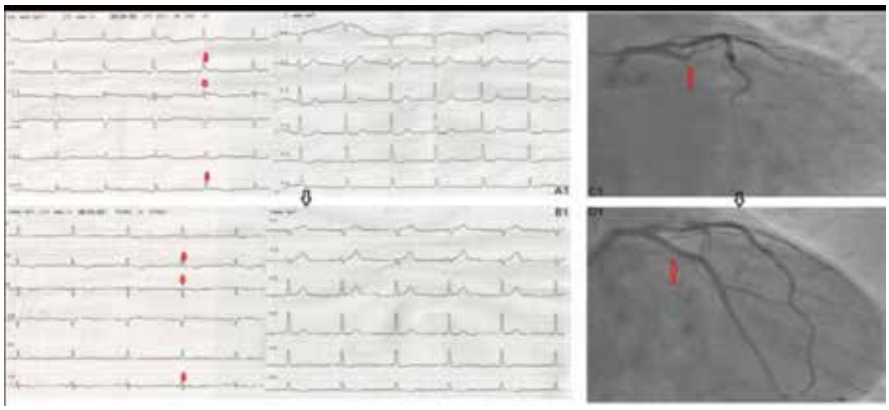
ST depression (especially horizontal or downsloping) is highly suggestive of NSTE-ACS.



The new emerging ECG "N" wave:

In two seperate studies, ***Yang et al*** and ***Alsagaff et al***, the "N" wave, which is a notch or deflection in the terminal QRS complex of patients presented to ED with chest pain and no ST elevations.

The notch or deflection in the terminal QRS complex of the same patient changed 2 hours later after PCI.
27% of NSTEMI patients have an occluded LCx in most of cases. Thus, significantly it is found that "N" wave NSTEMI has a risk equivalent to acute STEMI!



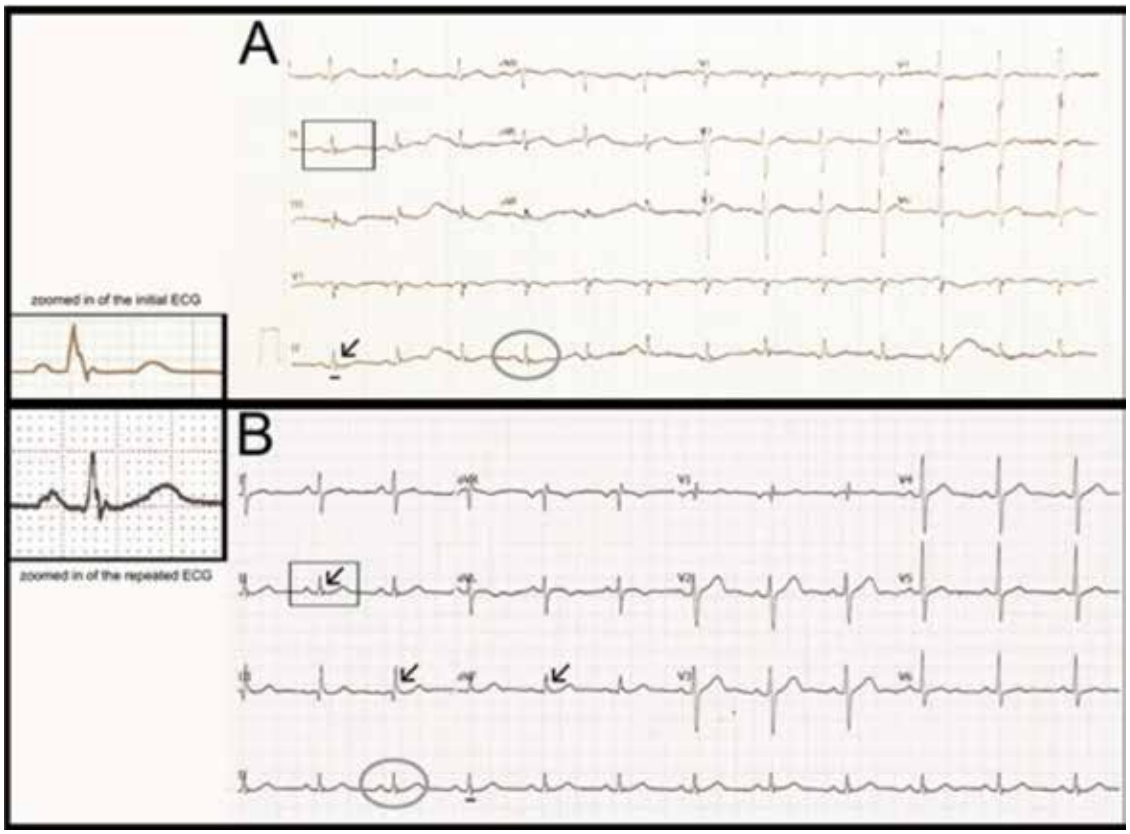
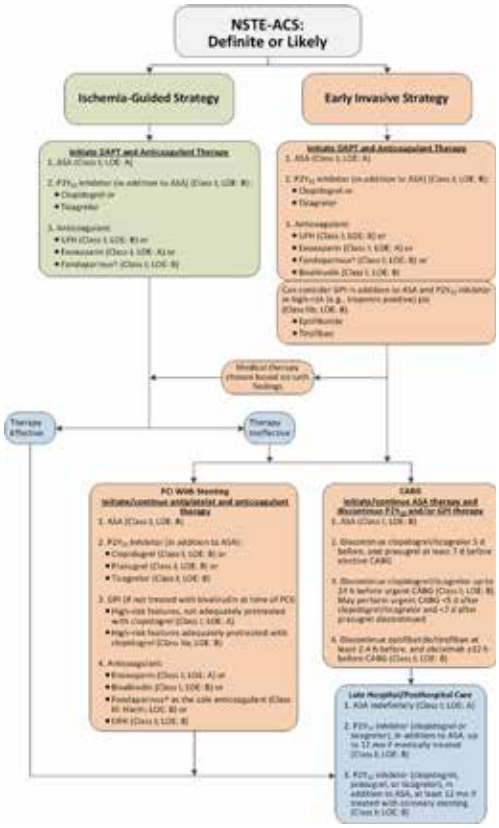


Table 5. Summary of Recommendations for Cardiac Biomarkers and the Universal Definition of MI

Recommendations	COR	LOE	References
Diagnosis			
Measure cardiac-specific troponin (troponin I or T) at presentation and 3—6 h after symptom onset in all patients with suspected ACS to identify pattern of values	I	A	(21, 64, 67-71, 152-156)
Obtain additional troponin levels beyond 6 h in patients with initial normal serial troponins with electrocardiographic changes and/or intermediate/high risk clinical features	I	A	(21, 72-74, 157)
Consider time of presentation the time of onset with ambiguous symptom onset for assessing troponin values	I	A	(67, 68, 72)
With contemporary troponin assays, CK-MB and myoglobin are not useful for diagnosis of ACS	III: No Benefit	A	(158-164)
Prognosis			
Troponin elevations are useful for short- and long-term prognosis	I	B	(71, 73, 165, 166)
Remeasurement of troponin value once on d 3 or 4 in patients with MI may be reasonable as an index of infarct size and dynamics of necrosis	IIb	B	(164, 165)
BNP may be reasonable for additional prognostic information	IIb	B	(87, 88, 167-171)

The last and main review in the Non-STEMI was the **2014 AHA/ACC guidelines for the managemesnt of patients with NSTEMI ACS**, that encompasses the rule of biomarkers in diagnosis, early management, ant-aggregants use and interventional coronary strategies.

Recommendations	COR	LOE	References
Oxygen			
Administer supplemental oxygen only with oxygen saturation <90%, respiratory distress, or other high-risk features for hypoxemia	I	C	N/A
Nitrates			
Administer sublingual NTG every 5 min × 3 for continuing ischemic pain and then assess need for IV NTG	I	C	103–105
Administer IV NTG for persistent ischemia, HF, or hypertension	I	B	106–111
Nitrates are contraindicated with recent use of a phosphodiesterase inhibitor	III: Harm	B	112–114
Analgesic therapy			
IV morphine sulfate may be reasonable for continued ischemic chest pain despite maximally tolerated anti-ischemic medications	IIb	B	115, 116
NSAIDs (except aspirin) should not be initiated and should be discontinued during hospitalization for NSTE-ACS because of the increased risk of MACE associated with their use	III: Harm	B	117, 118
Beta-adrenergic blockers			
Initiate oral beta blockers within the first 24 h in the absence of HF, low-output state, risk for cardiogenic shock, or other contraindications to beta blockade	I	A	119–121
Use of sustained-release metoprolol succinate, carvedilol, or bisoprolol is recommended for beta-blocker therapy with concomitant NSTE-ACS, *stabilized* HF, and reduced systolic function	I	C	N/A
Re-evaluate to determine subsequent eligibility in patients with initial contraindications to beta blockers	I	C	N/A
It is reasonable to continue beta-blocker therapy in patients with normal LV function with NSTE-ACS	IIa	C	120, 122
IV beta blockers are potentially harmful when risk factors for shock are present	III: Harm	B	123
CCBs			
Administer initial therapy with nondihydropyridine CCBs with recurrent ischemia and contraindications to beta blockers in the absence of LV dysfunction, increased risk for cardiogenic shock, PR interval >0.24 s, or second- or third-degree atrioventricular block without a cardiac pacemaker	I	B	124–126
Administer oral nondihydropyridine calcium antagonists with recurrent ischemia after use of beta blocker and nitrates in the absence of contraindications	I	C	N/A
CCBs are recommended for ischemic symptoms when beta blockers are not successful, are contraindicated, or cause unacceptable side effects*	I	C	N/A
Long-acting CCBs and nitrates are recommended for patients with coronary artery spasm	I	C	N/A
Immediate-release nifedipine is contraindicated in the absence of a beta blocker	III: Harm	B	127, 128
Cholesterol management			
Initiate or continue high-intensity statin therapy in patients with no contraindications	I	A	129–133
Obtain a fasting lipid profile, preferably within 24 h	IIa	C	N/A



Recommendations	Dosing and Special Considerations	COR	LOE	References
Aspirin				
• Non-enteric-coated aspirin to all patients promptly after presentation	162 mg-325 mg	I	A	288–290
• Aspirin maintenance dose continued indefinitely	81 mg/d-325 mg/d*	I	A	289–290, 293, 361
P2Y$_{12}$ inhibitors				
• Clopidogrel loading dose followed by daily maintenance dose in patients unable to take aspirin	75 mg	I	B	291
• P2Y$_{12}$ inhibitor, in addition to aspirin, for up to 12 mo for patients treated initially with either an early invasive or initial ischemia-guided strategy: – Clopidogrel – Ticagrelor*	300-mg or 600-mg loading dose, then 75 mg/d 180-mg loading dose, then 90 mg BID	I	B	289, 292 293, 294
• P2Y$_{12}$ inhibitor therapy (clopidogrel, prasugrel, or ticagrelor) continued for at least 12 mo in post-PCI patients treated with coronary stents	N/A	I	B	293, 296, 302, 330, 331
• Ticagrelor in preference to clopidogrel for patients treated with an early invasive or ischemia-guided strategy	N/A	IIa	B	293, 294
GP IIb/IIIa inhibitors				
• GP IIb/IIIa inhibitor in patients treated with an early invasive strategy and DAPT with intermediate/high-risk features (eg, positive troponin)	Preferred options are eptifibatide or tirofiban	IIb	B	43, 94, 295
Parenteral anticoagulant and fibrinolytic therapy				
• SC enoxaparin for duration of hospitalization or until PCI is performed	• 1 mg/kg SC every 12 h (reduce dose to 1 mg/kg/d SC in patients with CrCl <30 mL/min) • Initial 30 mg IV loading dose in selected patients	I	A	133, 136, 309
• Bivalirudin until diagnostic angiography or PCI is performed in patients with early invasive strategy only	• Loading dose 0.10 mg/kg loading dose followed by 0.25 mg/kg/h • Only provisional use of GP IIb/IIIa inhibitor in patients also treated with DAPT	I	B	292, 293, 310, 311
• SC fondaparinux for the duration of hospitalization or until PCI is performed	2.5 mg SC daily	I	B	312–314
• Administer additional anticoagulant with anti-Xa activity if PCI is performed while patient is on fondaparinux	N/A	I	B	313–315
• IV UFH for 48 h or until PCI is performed	• Initial loading dose 60 IU/kg (max 4000 IU) with initial infusion 12 IU/kg/h (max 1000 IU/ h) • Adjusted to therapeutic aPTT range	I	B	316–322
• IV fibrinolytic treatment not recommended in patients with NSTE-ACS	N/A	III: Harm	A	93, 329

But the real concern here in this entity was the inability to recognise the occlusive Non-STEMI patient! The patient is waiting in the EM for troponin studies, serial ECGs to diagnose an ischemia and so on!

According to ***Hwang et al,*** 25% of patients with NSTEMI had a main occluded culprit coronary artery whereas 50% of patients with NSTEMI had coronary collaterals!

So,

- A patient with chest pain;
- With high risk stratification score;
- Have to wait for hours in the EM because of cTn;
- With a potential of 25- 50% to have an occluded artery;

Cannot make his/her way to cath-lab, because the ECG doesn't meet the criteria of STEMI, and supposedly, an occluded coronary artery!

So building a new strategy dealing with such a patient became a necessity.

The first thing is to perform a cardiac ECHO, to identify a cardiac wall movement abnormality, alongside history, ECGs and cTn.

It is stated in Edward et al;

"Although the positive predictive value of echo in predicting ACA was limited, when combined with demographic attributes and risk factors, it proved to be successful in determining the need for angiography in patients with NSTEMI".

and finally, some important study were published that debates the legacy of naming the ACS spectrum, as we had moved from Q-wave and Non-Q wave MI, to STEMI and Non-SEMI, and the necessity of moving to another dichotomy, as it is explained in Smith et al:

"Recent studies suggest that 25% -30% of NSTEMI patients have ATO with increased adverse cardiovascular outcomes compared with those with patent coronary arteries. Early recognition of this high-risk group ofACS patients is based on the identification of ECG patterns that are related to ATO and do not satisfy current STEMI criteria. Knowledge and continuous training in interpretation of these ECG presentations could improve management and outcomes of ACS patients.
Considering STE as a hallmark of acute MI with ATO can be at times misleading and STEMI/NSTEMI classification should be revised to include more high-risk ECG patterns that signiy ATO. We agree with renaming the paradigm as the Occlusion
MI/Non-Occlusion MI paradigm".

And i think, this should be our mission to move on this quest!

References:

- 2014 AHA/ACC Guideline for the Management of Patients With Non–ST-Elevation Acute Coronary Syndromes, A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Volume 130, Issue 25, 23 September 2014; Pages e344-e426, https://doi.org/10.1161/CIR.0000000000000134 .
- Non-ST-elevated myocardial infarction with "N" wave on electrocardiogram and culprit vessel in left circum-

flex has a risk equivalent to ST-elevated myocardial infarction, Yang et al , DOI: 10.1002/clc.23334.

- NSTEMI with total left circumflex occlusion: how the N-wave might help (case report), Alsaggaf et al, Oxford Medical Case Reports, Volume 2022, Issue 2, February 2022, omac010, https://doi.org/10.1093/omcr/omac010.
- From Q/Non-Q Myocardial Infarction to STEMI/NSTEMI: Why It's Time to Consider Another Simplified Dichotomy; a Narrative Literature Review
- Avdikos et al, Arch Acad Emerg Med. 2022; 10(1): e78. https://doi.org/10.22037/aaem.v10i1.1783.
- Clinical characteristics of occluded culprit arteries and collaterals in patients with nonSTsegment elevation myocardial infarction and impact on clinical outcomes HUIJEONG HWANG, CHANGBUM PARK, JINMAN CHO, EUNSUN JIN, IL SUK SOHN, DONGHEE KIM and CHONGJIN KIM. DOI: 10.3892/etm.2018.6605
- The Utility of Echocardiography for Non-ST-Segment Elevation Myocardial Infarction: A Retrospective Study, Journal of Diagnostic Medical SonographyVolume 36, Issue 2, March/April 2020, Pages 121-129. doi.org/10.1177/8756479319886572

Tele tıp; gerekli mi ?

Uzm. Dr. Ahmet ÇOLAKOĞLU

Hatay Eğitim ve Araştırma Hastanesi

Sağlık hizmetlerine uzaktan erişim ilk olarak 20. yüzyılın başlarında açık denizde çalışan denizcilere hizmet vermek için kullanılmış, zaman içinde teknolojinin gelişmesi ile hızla sağlık sektörü içinde kullanımı artmıştır. Tele tıp dünya sağlık örgütüne göre "*mesafenin kritik bir faktör olduğu durumlarda, hastalık ve yaralanmaların tanı ve tedavisi ve hastalıklardan ve yaralanmalardan korunulması; araştırma, değerlendirme ve sağlık çalışanlarının sürekli eğitimi ile bireylerin ve toplumlarının sağlığını geliştirmek ile ilgili bilgi alışverişi için, sağlık profesyonelleri tarafından, bilgi ve iletişim teknolojileri kullanılarak sağlık hizmeti sunumu"* olarak tanımlanır.

Tele tıp, telekomünikasyon sistemi aracılığıyla hasta verilerini, belgeleri ve diğer bilgileri temel alan; müdahale, tanı ve tedavi ile ilgili kararların uzaktan uygulamasıdır.

Tele tıp uygulamaları hasta-hekim ilişkisi bazında en sık radyoloji, psikiyatri ve kardiyoloji kliniklerince kullanılmaktayken; hekim-hekim/diğer sağlık hizmeti vericileri arasındaki iletişimde ise acil tıp hekimleri %39 ile ilk sırada yer almaktadır.

Pandemi öncesi dönemde acil tıpta tele tıp kullanımı daha çok tele-triaj, tele-travma, tele-stroke, vb. alanlardayken; pandemi döneminde enfeksiyondan korunma gereksinimi, izolasyon gibi nedenlerle acil tıpta kullanımı yaygınlaşmıştır. Hastanın takibi sürecinde iletişim, lüzum halinde tekrar muayene, izlem ve taburculuk kararları gibi konularda tele tıbba gerek duyulmuştur.

Günümüzde tele tıbbın birçok yararı olduğu vurgulanmaktadır. Bunların başında hastaların sağlık kuruluşuna başvurma ve konsültasyon yükünü azaltması, hizmet memnuniyetinin ve yaşam kalitesinin artırılması, sağlık bakım hizmetlerinin iyileştirilmesi ve kırsal bölgelerde yaşayanlara sağlık hizmeti sunulabilmesi gelmektedir. Tele tıp çalışmalarının ilk aşaması olarak radyolojik raporlama, EKG yorumlama, patoloji dokularının raporlanması ve konsültasyon gibi hizmetlerde kullanımı; zaman, iş gücü ve hasta-hekim memnuniyeti açısından oldukça fayda sağlamaktadır. Gelişmiş ülkelerde tele tıp uygulaması kardiyoloji, kronik yara bakımı, dermatoloji, oftalmoloji ve travma bakımı gibi birçok alanda daha etkin bir şekilde kullanmaktadır.

Ülkemizde Sağlık Bakanlığı, 2006 yılında tele tıp uygulamalarını başlatmış olup, 2009 yılından itibaren e-reçete, Hasta Bilgi Yönetim Sistemi (HBYS) ve Görüntü Arşivleme ve İletişim Sistemlerinin(PACS) e-nabız uygulamasına entegrasyonu ile gün geçtikçe gelişerek faaliyet göstermektedir.

Kısıtlılıkları arasında ise teknolojik aletlerdeki (bilgisayar, telefon, vb.) varlığının yanında uygun yazılımları gerektirmesi, teknolojide aksamalar, bireylerin (hasta ve/veya hekim) teknolojiyi uygun kullanamamaları, maliyet-etkinliğin istenilen düzeyde olmaması, hekim-hasta ilişkisinde yüz yüze olan görüşmelerdeki başarıyı henüz yakalamamış olması, özellikle fizik muayenenin yapılamaması, tele tıp hizmetleri klinik durumların tamamı için uygun ve uygulanabilir olmaması, hasta mahremiyetini sağlayamaması, verilerin korunmasındaki aksaklıklar ve hekimin tıbbi-yasal sorumluluğun sınırları ile ilgili sorunlar sayılabilir.

Tele tıp sağlık hizmetine olan talebin artması, perifere daha uygun hizmet verilebilmesi, alanlardaki yoğunluğun azaltılması, konsültasyon sürelerinin kısaltılması gibi pozitif katkılar sonucu sağlık hizmet kalitesinin artırılmasını sağlamaktadır. Bu nedenle tamamlayıcı olarak tele tıp uygulamaları

kullanılmalıdır. Bununla birlikte sağlıkta eşitsizlik nedeni olmaksızın uygulanabilmesi için teknik, etik, medikolegal konular ve ayrıntılı uygulama esasları belirlenmelidir.

Kaynaklar

Telemedicine: opportunities and developments in member states: Report on the second global survey on eHealth. World Health Organization 2010. [Internet] https://www.who.int/goe/publications/goe_telemedicine_2010.pdf. Erişim:1.5.2021.

Dağdelen S. Teletıp uygulamaları: bugünden geleceğe öngörü ve beklentiler. Teletıp:Yaşlılık ve Teletıp uygulamaları (Edt: Kutsal YG, Aslan D.) Ankara. 2021: 127-35

Berikol GB. Teletıp uygulamaları. [Internet] https://acilci.net/teletip-uygulamalari/ Erişim:1.10.2021.

Hemşirenin eline iğne battı

Uzm. Dr. Özgür Şahan

Hatay Eğitim ve Araştırma Hastanesi

Sağlık çalışanları yapmış oldukları uygulamaları esnasında birçok risk ile karşı karşıya kalabilmektedir. Bu risklerden biride enfeksiyon etkenlerinin bulaşmasıdır. Bulaş kaynaklarının başında gelenlerden biri olan iğne batması kan yoluyla bulaşın en önemli nedenidir.

Enfekte kan ya da vücut sıvılarına maruz kalınması morbidite ve mortaliteye neden olabilecek, başta hepatit B (HBV), hepatit C (HCV) ve insan immün yetmezlik virüsü [humanimmunodeficiencyvirus (HIV)] gibi etkenlere bağlı enfeksiyonlara yol açabilir. Bununla birlikte bu temasların çoğu herhangi bir enfeksiyon kliniğine neden olmamaktadır. Enfeksiyon riski temas sırasında hastanın kanında bulunan patojen tipi ve miktarı ile temasın şekli, derinliği ve temas eden materyaldeki inokülüm miktarı ile ilişkilidir.

Yapılan çalışmalarda iğne batması sonrası HIV bulaş riski yaklaşık 1/300, HBV bulaş riski 1/3, HCV bulaş riski ise 1/30 olarak bildirilmiştir.

Kesici alet yaralanmalarında insidansı azaltmak için; Kana maruz kalma riskinin belirlenmesi, riski en aza indirecek politikaların oluşturulması, güvenli bir işyeri oluşturmak için eğitim ve öğretim,raporlama sisteminin güçlendirilmesi, çift eldiven kullanımı ve güvenlikle tasarlanmış kesici aletlerin kullanılması önerilmektedir.

İğne batması sonucu travmatize olan dokunun derhal sabunlu su ile bolca yıkanması bölgeye antiseptik solüsyonların uygulanması, hastadan ve temaslı personelden kan alınarak HBV,HCV ve HIV taramasına yönelik tetkik yapılması uygun olacaktır.

Proflakside HBV(Tablo 1) HCV ve HIV (Tablo 2)için algoritmalar oluşturulmuştur. HCV'de ise temaslı personelden temas sonrası anti-HCV'nin yanında alaninaminotransferaz (ALT) istenmelidir. Temaslı personelden 4.-6. haftada ALT ve HCV RNA istenmelidir. Son olarak temas sonrası 4. ve 6. ayda anti-HCV görülmesi önerilmektedir.

Tablo 1. Temas sonrası HBV proflaksisi

<table>
<tr><td rowspan="2">Sağlık Personeli Durumu</td><td colspan="2">Temas Sonrası Test</td><td colspan="2">Temas sonrası Profilaksi</td><td rowspan="2">Aşılama sonrası serolojik Test</td></tr>
<tr><td>Bulaştıran Hasta (HBsAg)</td><td>Sağlık personeli Testi (anti-HBs)</td><td>HBIG</td><td>Aşılama</td></tr>
<tr><td>Yanıt alınmış ve belgelenmiş 3 doz aşı</td><td colspan="5">Müdahale gerektirmez</td></tr>
<tr><td rowspan="2">Yanıt alınmamış ve belgelenmiş 6 doz aşı</td><td>Pozitif/Bilinmiyor</td><td>–</td><td>1 ay arayla 2 doz HBIG</td><td>–</td><td>Hayır</td></tr>
<tr><td>Negatif</td><td colspan="4">Müdahale gerektirmez</td></tr>
<tr><td rowspan="3">Yanıtı bilinmeyen 3 doz aşı</td><td>Pozitif/Bilinmiyor</td><td><10mlU/mL</td><td>1 doz HBIG</td><td rowspan="2">Tekrar aşılama başlatın</td><td rowspan="2">Evet</td></tr>
<tr><td>Negatif</td><td><10mlU/mL</td><td>Yok</td></tr>
<tr><td>Herhangi bir sonuç</td><td>>10mlU/mL</td><td colspan="3">Müdahale gerektirmez</td></tr>
<tr><td rowspan="2">Aşılanmamış / eksik aşılı ya da aşıyı reddenler</td><td>Pozitif/Bilinmiyor</td><td>–</td><td>1 doz HBIG</td><td rowspan="2">Aşıları Tamamlayın</td><td>Evet</td></tr>
<tr><td>Negatif</td><td>–</td><td>Yok</td><td>Evet</td></tr>
</table>

Tablo 2. Temas sonrası HIVproflaksisi

Temas türü	HİV (+)	HİV (+)	HİV durumu (?)	Kaynak (?)	HİV (-)
Hafif temas (lümensiziğne, yüzeyselsıyrık)	2 ilaç ile TSP	≥3 ilaç ile TSP	Genellikle TSP önerilmez HİV (+) kişi ile temas riski fazla ise 2 ilaç ile TSP verilebilir	Genellikle TSP önerilmez. HİV (+) kişi ile temas riski fazla ise 2 ilaç ile TSP verilebilir.	TSP önerilmez
Yoğun temas (lümenli iğne,derin yara,görünür kan, arter/ vendekullanılmışiğne)	≥3 ilaç ile TSP	≥3 ilaç ile TSP	Genellikle TSP önerilmez. HİV (+) kişi ile temas riski fazla ise 2 ilaç ile TSP verilebilir	Genellikle TSP önerilmez. HİV (+) kişi ile temas riski fazla ise 2 ilaç ile TSP verilebilir	TSP önerilmez

TSP: Temas sonrası proflasi

Eğitim ile desteklenen güvenlikli ekipman kullanımının iğne batması yaralanmasının önlenmesinde önemli ölçüde azaltabileceği sonucuna varılmıştır.

Kaynaklar

1. Saadeh, R., et al., *Needle Stick and Sharp Injuries Among Healthcare Workers: A retrospective six-year study.* Sultan Qaboos Univ Med J, 2020. **20**(1): p. e54-e62.
2. Beltrami, E.M., et al., *Risk and management of blood-borne infections in health care workers.* Clinical microbiology reviews, 2000. **13**(3): p. 385-407.
3. Tarigan, L.H., et al., *Prevention of needle-stick injuries in healthcare facilities: a meta-analysis.* infection control & hospital epidemiology, 2015. **36**(7): p. 823-829.
4. Berry, A.J., *Needle stick and other safety issues.* Anesthesiology Clinics of North America, 2004. **22**(3): p. 493-508.
5. *Bozkurt S. Sağlık çalışanlarında iğne batması ve cerrahi aletlerle olan yaralanmalar. Dicle Medical Journal 2013; 40 (3): 449-52.*

Violence and Emergency Department

Dr. Hakan AYDIN

Department of Emergency Medicine, University of Health Sciences Faculty of Medicine, Bakırkoy Dr. Sadi Konuk Training and Research Hospital, Istanbul, Türkiye

Violence has probably always been part of the human experience. Its impact can be seen, in various forms, in all parts of the world. More than a million people each year lose their lives, and many suffer non-fatal injuries (1). Overall, violence is among the leading causes of death worldwide for people aged 15–44 years (1). Public health has made some remarkable achievements in recent decades, particularly with regard to reducing the rates of many childhood diseases. However, saving our children from these diseases only to fall victim to violence or lose them later to acts of violence between intimate partners, to the savagery of war and conflict, or self-inflicted injuries or suicide, would be a failure of public health. Although precise estimates are difficult to obtain, the cost of violence translates into billions of US dollars in annual healthcare expenditures worldwide, and billions more for national economies in terms of days lost from work, law enforcement, and lost investment. Of course, the human cost of grief and pain cannot be calculated. Much of it is almost invisible. While satellite technology has made certain types of violence – terrorism, wars, riots, and civil unrest – visible to television audiences daily, much more violence occurs out of sight in homes, workplaces, and even in the medical and social institutions set up to care for people. Violence touches all of us in some way. To many people, staying out of harm's way is a matter of locking doors and windows and avoiding dangerous places. But for some, escape is not possible.

Hospital violence can be defined as an incident in which healthcare workers or providers are abused, threatened, or attacked in connection with their work (2). Hospital violence exists in many countries in the world. As such, it is still a global public health problem (3). According to the World Health Organization (WHO), about 8–38% of healthcare workers suffered from physical violence at work in 2019 (4).

The healthcare and social work sectors suffer the highest rates of injuries caused by workplace violence. In ADB, the probability of being exposed to workplace violence injuries is 5 times higher for healthcare workers than for workers in general. Healthcare workers accounted for 73 percent of all non-fatal workplace injuries and illnesses related to violence in the United States in 2018 (5). The Bureau of Labor Statistics reports that injuries from violent attacks against medical professionals grew by 63% from 2011 to 2018 (6). Hospital safety directors say that aggression against staff escalated as the COVID-19 pandemic intensified in 2020. In a survey this year by National Nurses United, 48% of the more than 2,000 responding nurses reported an increase in workplace violence — more than double the percentage from a year earlier. Patients committed nearly all assaults (98%) against emergency physicians. According to the ACEP survey, 85% of emergency physicians believe the rate of violence experienced in emergency departments has increased over the past five years. Two-thirds of emergency physicians report being assaulted in the past year alone (66%), while more than one-third of respondents say they have been assaulted more than once. Assaults are on the rise with nearly a quarter (24%) of emergency physicians reporting being assaulted multiple times a week (up from 8% in 2018). Assaults are on the rise with nearly a quarter (24%) of emergency physicians reporting being assaulted multiple times a week (up from 8% in 2018). Additionally, three in ten assaults (31%) were committed by family or friends of the patient being treated. The most common types of assaults are as follows: a) Verbal assault, with threats of violence [64%], b) Hits or slaps [40%], c) Spit on [31%], d) Kicked [26%], e) Punched [25%] (5). Hospital violence's continuous occurrence has seriously impacted healthcare workers' physical and mental health. This resulted in some healthcare workers having negative emotions such as anxiety (7–9), depression (10), job burnout (11), and job dissatisfaction (11). An August 2022 ACEP survey shows that violence in the emergency department (ED) is on the rise and is increas-

ing rates of healthcare worker burnout and harming patient care. 87% of emergency physicians report a loss of productivity from the physician or staff as a result. 85% of emergency physicians report emotional trauma and an increase in anxiety because of ED violence (5). Furthermore, it even directly or indirectly caused medical personnel to have suicidal tendencies. Hospital violence also seriously affects the doctor-patient relationship and makes doctors practice defensive medical behavior. This reduces the quality of health services and makes the trust between doctors and patients extremely fragile. Therefore, the contradiction between doctors and patients is further deepened (12). In the long run, hospital violence is bound to have a far-reaching negative impact on the medical and health systems.

Dissatisfaction with treatment effects is the main cause of hospital violence. This may be caused by patients' or their families' high expectations regarding the effects of diagnosis and treatment (13,14). Once the treatment effect is poor, the high expectation brought about by the good environment before the treatment and the low perceived value of patients after the treatment may lead to lower patient satisfaction. This may result in the occurrence of hospital violence (15). The failure to meet patients' unreasonable requirements is also the main reason for the occurrence of hospital violence. In the process of seeing a doctor, patients sometimes refuse to listen to healthcare workers' arrangements or put forward unreasonable requirements due to their own needs. Rejection of unreasonable requirements and environmental factors such as long waiting times, increase the likelihood of patients engaging in violent actions to hurt healthcare workers to express their dissatisfaction. Medical disputes are doctor-patient contradictions caused by patients' disagreement with the diagnosis and treatment process or results. When the doctors and patients have inconsistent negotiations on the disputes, patients may often recourse to violence to express their dissatisfaction with the entire healthcare system or specific doctors (14). Moreover, due to the influence of some media on doctors' "stigmatization" and previous violent medical incidents' success, patients or their families tend to imitate others in committing violence to achieve their own goals. In addition, another major cause of serious hospital violence is out-of-hospital disputes. Out-of-hospital disputes refer to disputes between patients and third-party personnel (i.e., non-medical personnel) before admission. Such a dispute may have caused damage to the patient's mental health. After the patient is admitted to the hospital, the altercation between the two parties is likely transferred to the hospital or healthcare workers, if it is not reasonably resolved.

In the studies on the characteristics of the perpetrators, it has been reported that most perpetrators are male, between the ages of 21-40, secondary school graduates, and below the level of education (16, 17). Patients or their families with such characteristics have a low level of overall health literacy and often have high expectations from medical procedures or treatment results. They are more inclined to take extreme violence to vent their negative emotions and exert pressure on the hospital when their expectations or requirements are not met. The perpetrators claim that their actions are in line with the moral obligations of their group, leading to the ineffectiveness of internal control (i.e., self-factors restraining criminal acts) and external control (i.e., social factors restraining criminal acts) (18). Therefore, people with low educational backgrounds and poor cognitive levels may have a higher sense of identity for group behavior. In addition, many studies have reported that some perpetrators have criminal records and violent criminal history, and may have drunkenness or mental disorders (17, 19). In addition, it was reported that most of the perpetrators were relatives of patients (11). This may be due to the patient's relatives' lack of empathy toward the doctor. Such an incentive lies in their in-group identity. As a social primate, it is instinctual for a man to rely on his group for survival. Under the control of this instinct, people stay close to their group and trust those in the same group to help and protect each other. Moreover, they may be hostile toward individuals or groups that infringe on the interests of their group. In cases of hospital violence, patients' relatives often consider healthcare workers as parties infringing on their group interests because their expectations are not fully met. As such, they do not empathize with these healthcare workers and even resort to perpetrating violent injuries again hem. Healthcare workers also have the same problem. The lack of empathy among healthcare workers leads them to ignore the demands of patients. This results in the creation and esca-

lation of doctor-patient contradictions, leading to further occurrences of hospital violence.

The harm caused by hospital violence to hospitals, healthcare workers, and the national health system cannot be ignored. To prevent violence in hospitals, the following measures have been suggested in many academic studies and reports of health institutions (20-24): 1)Develop a Hospital Workplace Violence Risk Reporting System, 2) Continue to Reform the Medical and Health System and Increasing Investments in the Health Sector, 3) Improving the Legal System Construction Against Hospital Violence, 4)Strengthening the Publicity and Education of the General Public's Concept of the Health and Legal System, 5) Strengthening the Security Force of the Hospital, 6) Improving the Dispute-Handling System and the Dispute-Handling Ability of Personnel, 7) Improving the Hospital Treatment Process and Environment, 8) Improving the Self-Protection Awareness and Ability of Healthcare Workers. One of the best protections healthcare employers can offer their workers is to establish a zero-tolerance policy toward workplace violence.

References

1. World Health Organization: Violence and Health: Task Force on Violence and Health. Geneva, WHO, 1998

2. ISBN. Framework Guidelines for Addressing Workplace Violence in the Health Sector. Geneva: Switzerland Ilo (2002).

3. Phillips JP. Workplace violence against health care workers in the United States. New Engl J Med. (2016) 374:1661. doi: 10.1056/NEJMra1501998

4. WHO. Violence against Health Workers. Geneva: WHO (2019).

5. American College of Emergency Physicians (ACEP), https://www.acep.org/acep-media-hub/media-hub-articles/september-2022-articles/social-media-resources-ed-violence/.

6. U.S. Bureau of Labor Statıstıcs, https://www.bls.gov/iif/oshwc/cfoi/workplace-violence-healthcare-2018.htm?utm_source.

7. Jaradat Y, Nielsen MB, Kristensen P, Nijem K, Bjertness E, Bast-Pettersen R. Mental distress and job satisfaction in Palestinian nurses exposed to workplace aggression: a cross-sectional study. Lancet. (2018) 391:S37. DOI: 10.1016/S0140-6736(18)30362-3

8. Zhao S, Xie F, Wang J, Shi Y, Fan L. Prevalence of workplace violence against chinese nurses and its association with mental health: a cross-sectional survey. Arch Psychiatr Nurs. (2018) 32:242–7. DOI: 10.1016/j.apnu.2017.11.009

9. Ma Y, Wang Y, Shi Y, Shi L, Wang L, Li Z, et al. Mediating role of coping styles on anxiety in healthcare workers victim of violence: a cross-sectional survey in China hospitals. BMJ Open. (2021) 11:e048493. doi: 10.1136/bmjopen-2020-048493

10. Li X, Wu H. Does psychological capital mediate between workplace violence and depressive symptoms among doctors and nurses in Chinese General Hospitals? Psychol Res Behav Manag. (2021) 14:199–206. doi: 10.2147/PRBM.S293843

11. Liu J, Zheng J, Liu K, Liu X, Wu Y, Wang J, et al. Workplace violence against nurses, job satisfaction, burnout, and patient safety in Chinese hospitals. Nurs Outlook. (2019) 67:558–66. DOI: 10.1016/j.outlook.2019.04.006

12. Wei CY, Chiou ST, Chien LY, Huang N. Workplace violence against nurses–prevalence and association with hospital organizational characteristics and health-promotion efforts: a cross-sectional study. Int J Nurs Stud. (2016) 56:63–70. doi: 10.1016/j.ijnurstu.2015.12.012

13. Tucker JD, Cheng Y, Wong B, Gong N, Nie JB, DOIu W, et al. Patient-physician mistrust and violence against physicians in Guangdong Province, China: a qualitative study. BMJ Open. (2015) 5:e008221. doi: 10.1136/bmjopen-2015-008221

14. Violence against doctors: Why China? Why now? What next? Lancet. (2014) 383:1013. DOI: 10.1016/S0140-6736(14)60501-8

15. Baolong M, Zhichen H, Yaru L Hong W. Causes of medical violence by patients based on QCA. J Beijing Inst Technol (Social Sci Ed). (2019) 5:101–14. DOI: 10.15918/j.jbitss1009-3370.2019.105

16. Li N, Wang Z, Dear K. Violence against health professionals and facilities in China: evidence from criminal litigation records. J Forensic Leg Med. (2019) 67:1–6. DOI: 10.1016/j.jflm.2019.07.006

17. James A. Violence and aggression in the emergency department. Emerg Med J. (2006) 23:431–4. DOI: 10.1136/emj.2005.028621

18. Maruna S, Copes H. What have we learned from five decades of neutralization research? Crime Just. (2005) 32:221–320. DOI: 10.1086/655355

19. Gillespie GL, Gates DM, Miller M, Howard PK. Workplace violence in healthcare settings: risk factors and protective strategies. Rehabil Nurs. (2010) 35:177–84. DOI: 10.1002/j.2048-7940.2010.tb00045.x

20. Ferorelli D, Solarino B, Trotta S, Mandarelli G Dell'Erba A. Incident reporting system in an Italian University Hospital: a new tool for improving patient safety. Int J Environ Res Public Health. (2020) 17:267. DOI: 10.3390/ijerph17176267

21. Ferorelli D, Mandarelli G, Zotti F, Ferracuti S, Carabellese F, Solarino B, et al. Violence in forensic psychiatric facilities. A risk management perspective. J Psychopathol. (2021) 27:40–50DOIoi: 10.36148/2284-0249-419

22. Ending violence against doctors in China. Lancet. (2012) 379:1764. DOI: 10.1016/S0140-6736(12)60729-6

23. Wang XQ, Wang XT, Zheng JJ. How to end violence against doctors in China. Lancet. (2012) 380:647–8. DOI: 10.1016/S0140-6736(12)61367-1

24. Senuzun Ergün F. Karadakovan A. Violence towards nursing staff in emergency departments in one Turkish city. Int Nurs Rev. (2005) 52:154–60. doi: 10.1111/j.1466-7657.2005.00420.x

Kardiyak Acil Yönetimi

Doç.Dr. Yücel YÜZBAŞIOĞLU

TAŞİARİTMİ YÖNETİMİNİ EN KISA NASIL ANLATILIR?

Dakikada 100 atım veya daha fazla ventrikül hızına sahip anormal kalp ritimleri olarak tanımlanan taşiaritmiler, çeşitli patolojilerden kaynaklanabilir ve sıklıkla semptomatiktir. Artmış otomatisite, reentry ve tetikleme mekanizmaları yer alır. Taşiaritmi ile ilgili belirti ve semptomlar en yaygın olarak çarpıntı veya göğüs rahatsızlığını içerir, ancak aynı zamanda şok, hipotansiyon, kalp yetmezliği (HF), nefes darlığı ve/veya azalmış bilinç düzeyini içerebilir. Dar bir QRS kompleksi (<120 ms), normal His-Purkinje sistemi aracılığıyla ventriküllerin hızlı aktivasyonunu yansıtır; bu da, aritminin His demetinin üstünden veya içinden kaynaklandığını gösterir. Taşikardi mekanizması sinüs düğümü, atriyum, AV düğümü, His demeti veya bu bölgelerin bazı kombinasyonlarında olabilir.

Dar QRS kompleksli taşikardi tipleri

Sinüs taşikardisi, AV nodal reentrant taşikardi (AVNRT), AV reentrant (veya resiprokasyonlu) taşikardi (AVRT), Atriyal taşikardi, Sinoatriyal nodal reentrant taşikardi (SANRT), İntraatriyal reentrant taşikardi (IART), Kavşak ektopik taşikardi, Paroksismal olmayan kavşak taşikardisi, Atriyal fibrilasyon (AF), Atriyal çarpıntı, Multifokal AT

KlinikBulgular

Çarpıntı, Senkop veya presenkop, Diyaforez, Göğüs ağrısı, Nefes darlığı, Baş dönmesi veya baş dönmesi sayılabilir.

Tanı

Dar QRS kompleksli taşikardi tanısından genellikle çarpıntısı olan bir hastada fizik muayenede nabız 100 vuru/dakika'dan fazla olduğunda şüphelenilir. Dar ve geniş QRS kompleksli taşikardi arasındaki ayrım, yalnızca 120 ms'den kısa süreli dar QRS kompleksleri ile birlikte dakikada 100 vurudan daha yüksek bir kalp hızı gösteren bir yüzey EKG›si gerektirir.

Değerlendirme

Hastanın hemodinamik stabilite (veya instabilite) semptom ve bulguları açısından değerlendirilmesi ve Mevcut taşikardi tipine ilişkin ipuçları için hastanın EKG'sinin değerlendirilmesini içerir

EKG'nin ritmin düzenliliği açısından değerlendirilmesi Düzenli – Sinüs taşikardisi, AV nodal reentrant taşikardi, AV resiprokasyonlu taşikardi, atriyal flutter (genellikle), atriyal taşikardi (AT). Düzensiz – AF, çok odaklı AT.sıralanabilir

Tedavi

Tanı konulduktan sonra hastanın stabil unstabil olması değerlendirilmeli Aritmileri nedeniyle hemodinamik olarak stabil olmayan AVRT'li hastalar için acil DC kardiyoversiyonu önerilir Stabil hastalarda nedenin saptanması ve Vagal manevralar etkisiz ise, bir AV nodal bloke edici ajanlar ile farmakolojik tedavi başlatılmalıdır. Adenozin, AV bloğa neden olur ve reentrant SVT'lerin %90'nından fazlasını normale döndürür

GENİŞ QRS KOMPLEKSİ TAŞİARİTMİLER

Düzenli geniş QRS karmaşık taşiaritmiler

Monomorfik ventriküler taşikardi, Anormal iletim, altta yatan iletim gecikmesi, aksesuar yol üzerinden iletim veya paced ventriküler yanıt ile birlikte supraventriküler taşikardi, Bazı antiaritmik ilaçlar alan veya önemli elektrolit anormallikleri olan bir hastada supraventriküler taşikardi, Antidromik AVRT sayılabilir.

Geniş QRS kompleksli taşikardinin en endişe verici potansiyel nedeni VT'dir ve hastaların çoğunda aksi kanıtlanana kadar aritminin VT olduğu varsayılmalıdır. Yanıt vermeyen veya nabzı olmayan bir hasta, standart ileri kardiyak yaşam desteği (ACLS) algoritmalarına göre tedavi edilmelidir. Stabil olmayan ancak bilinci yerinde olan bir hastada, mümkün olduğunda uygun sedasyon ile hemen senkronize kardiyoversiyon önerilir. Antidromik AVRT Ritmin antidromik AVRT olduğu kesin olarak biliniyorsa, o zaman adenosin , verapamil veya IV beta blokerler düşünülebilir, ancak SVT sonlandırıldıktan sonra atrial fibrilasyon (AF) gelişirse hızlı bir ventriküler hız olmadığından emin olmak için izlemeye devam edilmelidir. Düzenli geniş kompleks taşikardinin paroksismal SVT olduğundan şüpheleniliyorsa, farmakolojik tedavilere başlamadan önce vagal manevralar düşünülebilir. Unstabil hastalarda ise acil kardiyoversiyon uygulanmalıdır.

Düzensiz geniş QRS karmaşık taşiaritmiler

Torsades de pointes dahil olmak üzere polimorfik VT,Aberan iletim, bir aksesuar yol üzerinde antegrad iletim (örn. önceden uyarılmış AF) veya altta yatan iletim gecikmesi (örn. sağ dal bloklu AF) ile düzensiz dar kompleks taşikardileri içerir. Polimorfik VT'si ve normal başlangıç QT aralığı olan hastalarda en olası neden miyokardiyal iskemidir. Hemodinamik olarak stabil olmayan hastada hızlı defibrilasyon. IV amiodaron tekrarlayan bir epizodu önleyebilir. Acil koroner anjiyografi ve olası revaskülarizasyon ihtiyacı unutulmamalıdır. Sürekli, hemodinamik olarak kararsız polimorfik VT için acil defibrilasyon önerilir. Uzun bir QT aralığı (torsades de pointes) ile ilişkili polimorfik VT'nin tedavisi için magnezyum düşünülebilir(Class 2B). Normal bir QT aralığı ile polimorfik VT tedavisinde rutin magnezyum kullanımını önerilmediği unutlmamalıdır.

Kaynaklar

↔↘ Bağlantı MS. Klinik uygulama. Supraventriküler taşikardinin değerlendirilmesi ve ilk tedavisi. N İngilizce J Med 2012; 367:1438.

↕↘ Tintinalli's Emergency Medicine 7th Edition, Bölüm 129 sayfa 137.

⇢↘ Sayfa RL, Joglar JA, Caldwell MA, et al. 2015 Supraventriküler Taşikardili Yetişkin Hastaların Tedavisine İlişkin ACC/AHA/HRS Kılavuzu: American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society'nin Raporu. J Am Coll Cardiol 2016; 67:e27.

⇢↘ Brugada J, Katritsis DG, Arbelo E ve ark. 2019 Avrupa Kardiyoloji Derneği'nin (ESC) supraventriküler taşikardisi olan hastaların yönetimi için Görev Grubu supraventriküler taşikardi hastalarının tedavisi için ESC Kılavuzları. Avrupa Kalp J 2020; 41:655.

↕↘ Kalbfleisch SJ, el-Atassi R, Calkins H, et al. 12 derivasyonlu elektrokardiyogram kullanılarak paroksismal dar QRS kompleks taşikardilerin ayırt edilmesi. J Am Coll Cardiol 1993; 21:85.

SÖZLÜ BİLDİRİLER

S- 218

RENAL ANGIOMIOLIPOM HEMORAGE

Kübra Sezgin[1], Mehmet Oğuzhan Ay[1], Enad Kenan[1], Melih Yüksel[1], Umut Ocak[1], Halil Kaya[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Angiomyolipomas are basically benign renal tumors from the group of perivascular epithelioid cell tumors that can cause local complications. 80% of cases are sporadic and solitary. The remaining 20% present as part of the tuberous sclerosis complex and pulmonary lymphangioleiomyomatosis. The clinical spectrum of angiomyolipoma is very broadIt creates a clinical spectrum ranging from an incidentally detected small kidney mass to life-threatening retroperitoneal hemorrhage. Symptoms develop in 68-80% of masses larger than 4 cm, hemorrhage is observed in approximately 50-60%, and hypovolemic shock develops in one-third of patients presenting with hemorrhage. In this report, a case diagnosed as Renal Angiomyolipoma Hemorrhage is reported.

Case: A 56-year-old female patient applied to the emergency department with the complaint of right flank pain that started in the morning. She stated that her pain was colic, writhing and in attacks. There was no known additional disease other than hypertension. On examination, there was tenderness of the right costovertebral angle. In the ultrasonography of the patient, several hyperechogenic nodular lesions, the largest of which was 11 mm in diameter, were observed in the right renal cortex (angiomyolipoma?). On contrast-enhanced abdominal CT of the patient, a 5 cm mass lesion containing heterogeneous areas of fat density was observed in the lower pole of the left kidney. The outlook was primarily evaluated in favor of angiomyolipoma. In addition, hematoma reaching 5.5 cm in the thickest part of the retroperitoneal area in the left perirenal area (Anjiomyolipoma hemorrhage?) was observed. Urology consultation was requested and the patient was admitted to the urology service with the preliminary diagnosis of "Renal Angiomyolipoma Hemorrhage".

Conclusions: While small angiomyolipomas can only be followed up, intervention may be necessary to provide a definitive diagnosis for large ones, those that cause bleeding or pain, or suspicious masses that cannot be differentiated from low fat content and RCC. A nephron-sparing approach should be preferred for the surgical treatment of angiomyolipomas. Renal Angiomyolipoma Hemorrhage should be kept in mind in the differential diagnosis of patients presenting to the emergency department with flank pain.

Keywords: Renal angiomyolipoma hemorrhage, flank pain, urology

S- 067

A RARE CAUSE OF RİGHT UPPER QUADRANT PAIN: GIANT LIVER HEMANGIOMA WITH ROSACEA DISEASE

ILAYDA CIVELEK[1], HATICE TOPCU[1]

[1]SBU Seyrantepe Hamidiye Etfal Training and Research Hospital

Background and aim: Hepatic hemangiomas are the most common benign liver lesion and they are common in middle-aged women. The majority are small (<5 cm), while size ranges from a few millimeters to over 20 cm. Hemangiomas ≥10 cm are referred to as giant hemangiomas. Rosacea is a chronic inflammatory dermatosis characterized by flushing and telangiectasia, primarily affecting the cheeks, nose, chin, and forehead. In this case, we aimed to consider hepatic hemangiomas in patients with rosacea who presented to the emergency department with right upper quadrant pain.

Case: The 44-year-old woman applied to emergency services with right upper quadrant pain for 3 days. The patient did not have any known diseases except rosacea. Her vital signs were stabiles. On the physical examinations there were mild tenderness in the upper abdomen, a negative Murphy's sign without no signs of nause and vomiting and recent trauma. Laboratory findings showed WBC level of 9.04×109/L (4.5–10.5×109 /L), Hb level of 105 g/L (115–155 g/L) and Plt count of 246×109/L (150–400×109 /L). Tests revealed that HBsAg and anti-HCV Ab were negative, anti-HBs Ab was positive. Concentrations of all tumor markers and liver enzymes were normal. Abdominal CT revealed a gross mass lesion of approximately 14 cm in diameter with cystic-necrotic areas in the central part of the right lobe of the liver draws attention (figure-1). In the right lobe of the liver, a lesion with a size of 138x136x155 mm, with cystic necrotic areas in the central part, lobulated contour, exophytic growth towards the outside of the kidney with exophytic pressure on the portahepatis, portal vein and right common bile duct is observed at the abdominal MRI (figure-2). The patient who was consulted to the general surgery clinic kept 24 hours in emergency department for observation and discharged without complications by suggesting follow-up from hepatobiliary surgery department.

Conclusions: It is a situation that should be kept in mind that middle-aged female patients with rosaceae presenting to the emergency department with the complaint of right upper quadrant pain may have giant hemangioma in the liver, and such a case has not been found in the literature.

Keywords: Giant hemangioma, Rosacea, Abdominal pain, Emergency department

S- 011

Evaluation of Pandemic Intensive Care Experiences of Emergency Medicine Specialists

Ertuğrul Altuğ[1]

[1]Başakşehir Çam ve Sakura Şehir Hastanesi

Background and aim: The Covid-19 pandemic is a disease with high mortality rates that is effective all over the world. It has been effective since December 2019. The most common cause of death is pneumonia.

Methods: The study included 300 patients who were hospitalized in the pandemic intensive care unit and whose diagnosis of Covid-19 was confirmed. Exclusion criteria for the study were determined as patients under 18 years of age, pregnant, unfollowable, and negative PCR test. Covid-19 patients outside these criteria were included in the study. Our study was retrospective and single-center.

Results: The study was conducted with 300 cases. 54% (n=162) of the cases were male and 46% (n=138) were female. The median age of the cases was 66 (57.0-76.0 years). Looking at the outcomes; while 41.8% of the cases were discharged; mortality was observed in 58.2% of them. The median length of stay of the cases was 6 (3-18) days.

Conclusions: As a result, no disruption was observed in the treatment of patients who were followed up and treated by the emergency medicine clinic during the Covid-19 pandemic. Mortality rates were found to have similar results with the literature.

Keywords: Covid-19, Intensive Care Unit, ARDS

S- 090

PNEUMOMEDIASTINUM: RETROSPECTIVE ANALYSIS OF 20 CASES

İbrahim Altundağ[1]

[1]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: The presence of free air in the mediastinum is called pneumomediastinum(mediastinal emphysema).Pneumomediastinum is a rare pathology that results from the migration of air into the mediastinal space due to extravasation of the conductive airways, lungs or esophagus. Pneumomediastinum is divided into two groups as spontaneous(SPM-primary) and secondary.In this study, we aimed to present a retrospective analysis of rare cases with pneumomediastinum.

Methods: A retrospective observational study was carried out of 20 cases with pneumomediastinum applied to our hospital between 01.06.2020-01.06.2022.Cases were analyzed in terms of age, gender, mechanism of occurrence, underlying causes and symptoms.

Results: The dataset comprised 20 patients.The mean age of the cases was 45.8 (range 18-80). 60% (n=12) of the cases were male and 40% (n=8) were female.Considering the comorbid diseases, hypertension was the most common in 40% (n=8), followed by diabetes in 30% (n=6), 25% (n=5) chronic lung disease...etc.There wasn'y any significant laboratory abnormality associated with pneumomediastinum.Only 15% (n=3) of the cases were spontaneous, 85% (n=17) were secondary pneumomediastinum.10% (n=2) of pneumomediastinum cases developed due to trauma and 40% (n=8) iatrogenic causes, the most common iatrogenic causes were intubation and invasive mechanical ventilation(MV), followed by colonoscopy and ERCP applications.Pneumomediastinum developed in one case each with asthma attack and COPD exacerbation without MV application during the attack period.The underlying cause in two cases was respiratory tract infections.The underlying cause was spontaneous pneumothorax in one patient.One patient developed pneumomediastinum secondary to lung malignancy. Neuroleptic malignant syndrome (NMS) was considered as the trigger of pneumomediastinum in a patient with anti-psychotic use and serum CK level of 22.008 U/L.

Conclusions: In our study, the most common type of pneumomediastinum is secondary pneumomediastinum, and iatrogenic causes constitute a significant portion.Among iatrogenic causes, complications related to invasive mechanical ventilation constitute the majority.In advanced airway applications, mechanical ventilator settings using pressure-controlled modes or keeping the Ppeak at <35-40 cmH2O are important in preventing the development of pneumomediastinum. Among the comorbid diseases, those that couldn't be directly associated (cause-effect relationship) with pneumomediastinum except asthma and COPD.COPD and asthma can cause pneumomediastinum by causing pneumothorax due to both air trapping and bullae.

Keywords: pneumomediastinum, spontan pneumomediastinum, SPM, iatrogenic causes, COPD-asthma

S- 010

THE RELATIONSHIP OF LABORATORY DATA WITH MORTALITY AND LENGTH OF HOSPİTAL STAY OF COVID-19 CASE WHO ATTENDED TO THE EMERGENCY DEPARTMENT AND AFTER INVESTED IN INTENSIVE CARE

Şenol ARSLAN[1], Onur ZENGİN[1]

[1]ERZURUM BÖLGE EĞİTİM VE ARAŞTIRMA HASTANESİ

Background and aim: We think that various laboratory data of patients with COVID-19 may be associated with mortality and length of hospital stay. Therefore, it is important to understand the role of certain laboratory data in the pathophysiology of COVID-19. In this study, we conducted a retrospective review of some laboratory data from COVID-19 patients.

Methods: This retrospective study was performed in Erzurum Medical Faculty. A demographic information form was created for each patient. 81 patients who applied to the emergency department before August 2022 and were admitted to the intensive care unit afterward were included in the study. Patients were divided into two groups as deceased and survivors. A comparison of parameters such as gender, age, comorbid diseases, blood parameters, intubation, and length of hospital stay was made between groups.

Results: The findings we obtained are as follows: (1) Age, BUN, and ALT values were found to be higher in the deceased group compared to the surviving group, and albumin values were lower in the group that died; (2) In addition, mortality was evaluated according to the length of hospital stay and the findings showed that the duration of hospital stay was lower in the deceased group; (3) A negative correlation was found between ALB-CRP and ALB-D-Dimer and ALB-BUN at a significance level of 0.01.

Conclusions: The COVID-19 pandemic is still ongoing and burdens the health system greatly. It is important to follow up laboratory parameters with high prognostic value. Because these parameters can guide the implementation of early diagnosis and timely effective treatment of patients with high mortality. Laboratory parameters play a vital role in diagnosis, treatment, and prognosis follow-up in the fight against COVID-19. In conclusion, our study examined the relationship between COVID-19 and laboratory parameters and offers a different perspective on the disease.

Keywords: COVID-19, Laboratory, Mortality

S- 107

Challenging Surgical Treatment of Brucellosis Induced Aortic Valve Endocarditis Accompanied by Aortopulmonary Fistula and Aortic Root Abscess

Semih Murat Yücel[1], Fatih Çalışkan[2], Latif Duran[2]

[1]Ondokuz Mayıs Üniversitesi Tıp Fakültesi Kalp Damar Cerrahisi Anabilim Dalı
[2]Ondokuz Mayıs Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Brucellosis is the most common zoonotic infection prevalent all around the world. It is endemic in the Mediterranean, Asian, and African developing countries contrary to developed countries. It is common in people whose occupation is livestock or who consume uncooked food from these animals. The most fatal complication (80%) of brucella is endocarditis. Aortic valve involvement is the most common. It can lead to aortic root abscess and rarely aortopulmonary fistula. Since it can lead to sepsis and decompensated heart failure, the definitive treatment for these complications is emergency surgical treatment, and long-term combined antibiotic therapy. We present our challenging emergency surgical treatment of the patient with aortic valve endocarditis, aortic root abscess, aorticopulmonary fistula, and severe decompensated heart failure due to brucellosis.

Case: A 52-year-old male patient presents to the emergency department with complaints of persistent fever, joint pain, weakness, and shortness of breath for five weeks. He was a sheep and cattle breeder. He had a high fever (38.4), tachycardia, tachypnea, systolodiastolic murmur, and bilateral rales on physical examination. Echocardiographic imaging showed severe aortic regurgitation, 14x22 mm vegetation on the aortic valve, aortic root abscess, and an aortopulmonary fistula. Brucella melitensis grew in his blood culture. We decided to perform emergency surgical treatment and triple antibiotic therapy. After the Bentall operation, the patient was discharged asymptomatically after six weeks of antibiotic treatment.

Conclusions: Brucella endocarditis with aortopulmonary fistula and aortic root abscess has a very high mortality if not treated surgically immediately. In the presence of high clinical suspicion, positive blood culture, and echocardiographic findings of endocarditis, combined antibiotic therapy should be started without delay, and emergency surgical treatment should be performed in those patients. The main goal of surgical treatment is resection of all infected tissues, repair of mechanical complications such as fistulization, and aortic valve-aortic root replacement. Prolonged antibiotic therapy is also an essential part of treatment.

Notes (Optional): We present our case as a successful surgical treatment of this fatal pathology due to brucellosis,a rare cause of endocarditis, for the approval of valuable reviewers.

Keywords: Brucella endocarditis, Bentall operation, Aorto-pulmonary fistula, Root abscess

S- 191

A Bullet in the Cervical Canal Caused by a Gunshot Injury: A Case Report

Ali Sarıdaş[1], Murat Duyan[2], Kübra Demir Çim[1]

[1]Prof. Dr.Cemil Tascıoglu City Hospital
[2]Antalya Eğitim ve Araştırma Hastanesi

Background and aim: The head and neck region contains many vital anatomical structures. Therefore, life-threatening clinical conditions in gunshot wounds are more common in the head and neck compared to other anatomical regions. In this article, a case of head and neck injury in which the bullet was placed behind the cervical vertebral canal after the bullet entered the body is presented.

Case: A 21-year-old female patient comes to the emergency department with a complaint of gunshot wound to the neck area. The day before, in another hospital, the bullet remained in the posterior cervical area, but he refused treatment. One day later, he applied to the emergency department with the complaint of numbness in his arms and legs. The general condition of the patient is good, he is conscious. All four extremities are spontaneously mobile, there is no motor deficit. Right marginal mandibular nerve deficit was observed on facial nerve examination. In Computed Tomography imaging; In the right mandibular and submandibular area, diffuse edematous thickness increase in soft tissues and diffuse emphysema values were present. There is a fragmented fracture in the bone structure. At the level of the right mandibular corpus, approximately 24 hours ago, lead entry was observed in the 2 cm inferiorus of the right oral commissure. No additional pathology was detected in other maxillofacial osseous structures. On the right, the SCM muscle is asymmetrically thick compared to the left. Metallic foreign bodies are observed at the skin level in the right paraspinal soft tissue and in the right supraclavicular area at the C7 vertebra level. Lead removal operation was planned for the patient and the patient was admitted to the neurosurgery service.

Conclusions: Patients who have had spinal cord trauma due to gunshot injuries should be considered as standard trauma patients. First, evaluation, airway management, bleeding control, shock management, visceral injuries and spinal cord immobilization should be treated first. Neck trauma can cause many clinical conditions. As a result; Presented as cervical canal is a rare condition after gunshot wound injury

Notes (Optional): A Bullet in the Cervical Canal Caused by a Gunshot Injury: A Case Report

Keywords: neck area, spinal cord immobilization, cervical canal

S- 047

Missing Rates of Patients with Clostridial Myonecrosis-Necrotizing Soft Tissue Infection in the Emergency Department

Güneş YILDIRIM[1], Ömer Faruk KARAKOYUN[2], Birdal YILDIRIM[3]

[1]Muğla Sıtkı Koçman Üniversitesi Tıp Fakultesi
[2]Muğla Eğitim Araştırma Hastanesi Acil Servis
[3]Muğla Sıtkı Koçman Üniversitesi Tıp Fakultesi Acil Tıp Anabilim Dalı

Background and aim: Necrotizing soft tissue infections may progress as fasciitis, cellulitis, or myositis, depending on the level of the soft tissue, and are characterized by diffuse necrosis.Fournier's gangrene (FG) often involves genital, perineal or perianal regions; It is a progressive necrotizing fasciitis that can spread to the abdomen and lower extremities.FG is a urological emergency. Early diagnosis and effective treatment are lifesaving.For this reason, it is a disease that should be paid attention to in applications made to the emergency service and should not be overlooked. In our study, we wanted to draw attention to FG disease.

Methods: For our research, all patients diagnosed with ICD codes through the hospital data processing system were listed.Then, the emergency service applications of these patients were evaluated based on the hospitalization files. The research form was filled with the data on the hospital data processing system and the data obtained from the hospital archive.

Results: The data of 59 patients, 39 (66.1%) male and 20 (33.9%) female, were obtained for the study. 24 (40.7%) of the patients were admitted to the hospital from the emergency department and 35 (59.3%) from the polyclinics.The complaints of the patients were mostly from the inguinal region, 23 (39%), followed by 14 (23.4%) from the lower extremities and 8 (13.6%) from the perianal region. Forty-four patients were hospitalized and their treatment was planned. Five of the hospitalized patients died.

Conclusions: Due to the high number of patients in our country, the approach to the diagnosis, treatment and referral of cutaneous and subcutaneous emergencies in the emergency departments of training and research hospitals is important.Most of our cases were hospitalized from general surgery, and two-thirds of them were hospitalized from outpatient clinics.One-fourth of the emergency department admissions died during the follow-up period, and no mortality occurred in patients hospitalized in outpatient clinics.It can be interpreted that the application may have been made in the early period of the infection and they did not feel like an emergency patient yet.Skin and soft tissue infections are among the most common infections in the emergency department, and physicians should be knowledgeable about differential diagnosis and treatment approaches.

Keywords: Fournier Gangreni, Emergency department, mortality

S- 205

Bilateral Fracture Dislocation of the Shoulder After Epileptic Seizure (TRIPLE E SYNDROME)

Talat Cem Özdemir[1], Burak Emre Gilik[1], Asaad Hussein[1], Hakan Oğuztürk[1]

[1]Ankara Şehir Hastanesi SUAM

Background and aim: The incidence of bilateral glenohumeral joint dislocation is rare. This dislocation is usually seen after sports injuries, epileptic seizures, electrical injury, and electroconvulsive therapy.Bilateral fracture-dislocation is even rarer and there are very few cases in the literature. In this case, bilateral shoulder fracture dislocation secondary to an epileptic seizure, which is a component of triple E syndrome, is presented.

Case: An 82-year-old male patient with known coronary artery disease and history of cerebral aneurysm surgery; In morning times, the patient was brought to the emergency department by his relative through 112 due to bleeding from the mouth and blurred consciousness .In the emergency department follow-up, the patient had a generalized tonic-clonic seizure lasting a few minutes and no acute bleeding was observed in the brain tomography of the patient, in diffusion magnetic resonance image there was diffusion restriction in the right cerebellar medial hemisphere, consistent with an acute infarct. Neurology consultation was taken in terms of ischemic stroke and epileptic seizure related to this condition. a simple shoulder arm sling was applied to the patient who Thrombolytic or thrombectomy was not considered for the patient after that antiepileptic and anticoagulant treatment was started, but due to pain, tenderness, and limitation of movement in the right and left shoulders, an X-ray was taken and bilateral proximal humerus fracture (large reverse vertex-Sachs lesion-fracture dislocation) was observed in the shoulder. The patient was evaluated by the orthopedic surgeon due to his current clinical condition but emergency surgical intervention was not considered. the patient was admitted to the neurology intensive care unit with the diagnosis of ischemic stroke.

Conclusions: In our case, there was Triple E syndrome secondary to an epileptic seizure. As a result of a detailed examination of the patient's first epileptic seizure, it was found that the underlying cause was an ischemic stroke. It should be kept in mind that patients presenting with epileptic seizures may also have injuries secondary to trauma. Therefore, in addition to the neurological examination to be performed in patients presenting with seizures, detailed trauma examination gains importance in order not to ignore multiple extremity trauma.

Notes (Optional): Triple E syndrome

Keywords: Bilateral Humeral Fracture Dislocation, Triple E Syndrome, Epileptic Seizure, Ischemic Stroke

S- 119

Evaluation of Patients with Acute Arterial Occlusion in Emergency Clinic

Kemal Gökçek[1]

[1]Buca Seyfi Demirsoy Training and Research Hospital, Department of Emergency, İzmir, Turkey.

Background and aim: Doppler ultrasonography used in the diagnosis of acute arteral occlusion. İn our study, We aimed to evaluate the patients which have the sign of acute arterial occlusion in the lower extremity and underwent Doppler USG.

Methods: Patients who applied to emergency service between 2018-2022 and had Doppler USG due to leg pain, pallor or paresthesia were included in the study retrospectively

Results: We evaluated 48 patients and 33 (68.8%) of them were male. The mean age was 73.25±15.05 years. Co-morbid disease was present in 43 (89.6%) patients. Hypertension and diabetes mellitus were the most common ones(14 patient,29.2%). As treatment, low molecular weight heparin was used in 26(54.2%) patients and warfarin in 22(45.8%) patients, surgery in 36(75.2%) patients, and antibiotherapy in 14 (29.1%) patients. We observed that amputation was more common in patients with DM. Amputation was performed in 9 (18.8 %) patients and 4 of the patients (8.3%) died during their follow-up in the hospital. When we examine the patients' affected vessels; Fomaral artery of 20(41.7%) patients, popliteal artery of 16(33.3%) patients, iliac artery of 2(4.2%) patients and popliteacrural artery of 10(20.8%) patients were involved.

Conclusions: Acute limb ischemia is associated with a sudden decrease in arterial perfusion from a thrombotic or embolic cause. Arterial thromboembolism is more common in the age of 50-70 years. In the study of Korkmaz O. et al, similar to us; mean age of the cases was 78.53±5.85 years , 31 (68.9%) of the patients were male and 14 (31.1%) of them were female. One of the leading causes of peripheral embolism is AF and in our study, 18.8% of the patients had AF. The most common localization is femoral artery 34%.In our study group, as in the literature, thrombosis was most commonly found in the femoral artery. Acute arterial occlusion can lead to limb loss with a frequency of 15-50% in the postoperative period and this rate was 18.8% in our study.As a result, the success of treatment in acute arterial occlusion depends on prompt diagnosis and early treatment. Doppler USG can be used in the differential diagnosis of acute arterial embolism in patients with leg pain.

Keywords: arteral occlusion, doppler ultrasonography, leg pain

S- 106

A Rare Case: Sick Sinus Syndrome

Enad Kenan[1], Melih Yüksel[1], Umut Ocak[1], Halil Kaya[1], Mehmet Oğuzhan Ay[1], Ebru Çetin Kenan[1]

[1]University of Health Sciences Turkey, Bursa Faculty of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa,Türkiye

Background and aim: Sick sinus syndrome(SSS) is characterized by a dysfunctional sinus node and can be caused by either intrinsic pathologies of the sinus node (e.g.amyloidosis, connective tissue disorders, Chagas disease, hemochromatosis, Diphtheria, leukemia, sarcoidosis) or by extrinsic causes. its clinical presentation can at times mimic a generalized seizure disorder .

Case: A 77-year-old female patient. The patient had a history of diabetes mellitus, atrial fibrillation and epilepsy. The patient was brought to the emergency room by 112 due to epileptic seizure. The patient was not in postictal appearance when brought. It was learned that the seizure of the patient who did not have incontinence was tonic-clonic lasting 3-4 seconds. According to the relatives of the patient who had been followed up in an external center for 1 year due to epilepsy, her seizures were similar to previous ones, Today, though, her she suffered up to 10 seizures. It was further learned that the patient used her medications regularly and that she hadn't additional complaints (dysuria, diarrhea, history of fever, etc.). Blood pressure: 110/70 mm/Hg; Pulse: 118/minute; Fever: 36,1 0C; Blood Sugar: 163; GCS: 15; oriented, cooperative, and physical examinations were normal. The patient, who was monitored and followed up and treated, had epileptic seizures again, as reported by her relatives. Upon examination, asystole lasting for about 6 seconds was observed in the patient's rhythm during the seizure, in addition to spontaneous sinus rhythm return. The patient was diagnosed with SSS. The patient who was consulted to the cardiology was evaluated as SSS and was admitted to the Coronary Intensive Care Unit. The coexistence of the patient's seizures and asystole rhythm was observed 3 more times in the emergency department follow-ups, and it was understood that the reason for the patient's contraction was asystole.

Conclusions: The differential diagnosis of epileptic seizures varies according to age and the clinic of the seizures. Generally, non-epileptic seizures (pseudoseizures) are grouped under two headings as physiological and psychogenic. Correctly distinguishing pseudoseizures from epileptic seizures is very important for correct diagnosis and therefore correct treatment.

Keywords: sick sinus syndrome, emergency department, seizure

S- 069

OBEZİTE TEDAVİSİ İÇİN UYGULANAN İNTRAGASTRİK BOTULİNUM TOKSİN-A ENJEKSİYONU SONRASI NADİR GÖRÜLEN BİR KOMPLİKASYON :HEMATOM

MUHAMMED FATİH CIRIL[1]

[1]SBÜ SANCAKTEPE ŞEHİT PROF.DR. İLHAN VARANK EĞİTİM VE ARAŞTIRMA HASTANESİ

Arka plan ve amaç: Obezite gittikçe yaygınlaşan ve birçok komorbiditeye sahip olan sağlık sorunudur. Farmakolojik tedavilerin başarısızlığı sebebiyle cerrahi tedaviler yaygınlaşmıştır. Cerrahi tedavilerin yan etkilerinin fazla olması sebebiyle , mide boşalmasını düz ve çizgili kasları güçlü ve uzun şekilde inhibe ederek geciktirdiği düşünülen Botulinum toksin-A (BTX- A) nın intramural enjeksiyonu tedavi amaçlı uygulanmaktadır(1,2,3)Olgumuzda botulinum toksininin endoskopik girişim ile mide duvarına enjeksiyonu sonrasında ortaya çıkan ve çok nadir görülen intramural hematom komplikasyonunun tanı süreci ele alınmıştır.

Vaka: 42 yaşında kadın hasta; 4 gündür devam eden bulantı ve karın ağrısı, 2 gündür süren konstipasyon şikayeti ile acil servisimize başvurdu. Dış merkezde 13 gün önce obezite için endoskopi ile gastrik botoks uygulaması yapılmış. Ek hastalık öyküsü yoktu. Başvuru anında vitalleri stabil. Fizik muayenede abdomende üst kadranlarda yaygın hassasiyet ve epigastrik defansı mevcuttu, rebound yoktu. Harici sistem muayeneleri doğal. Tam kan sayımında Beyaz küre:13.220 103/µL, nötrofil :10.400 103/µL, hemoglobin:12.7 g/dl olarak izlendi. Diğer laboratuar parametrelerinde bir anormallik tespit edilmedi. 40 mg pantoprazol intravenöz olarak verilen hastanın, şikayetlerinde gerileme olmaması üzerine intravenöz kontrastlı abdominal tomografisi çekildi. Mide duvarında diffüz kalınlaşma ve antipilorik bölgede majör kurvatur komşuluğunda 42 x 36 mm büyüklüğünde hematom düşündüren hipodens alan tespit edildi(Şekil 1). Hasta genel cerrahiye konsülte edildi. Genel cerrahi tarafından takip ve tedavi amaçlı yatırıldı. Hemoglobin düşüşü saptanmayan ve aktif kanaması olmayan hastaya invaziv girişim düşünülmedi. Bir günlük takibi sonrasında şikayetleri gerileyen hasta taburcu edildi. Şekil 1. Hastanın kontrastlı abdominal tomografi görüntüsüTARTIŞMAMide duvarına Botulinum toksin-A (BTX-A) enjeksiyonu sfinkterleri gevşetici, antrum veya fundusta ise mide boşalmasını azaltıcı etkisi nedeniyle obezite tedavisinde etkili olabileceği düşünülmüştür(1-4,5).Yapılan çalışmalar gastric botulinum tedavisine bağlı dispeptik ve geçici semptomların olabileceği ve bunların da çok nadir görülebileceği bildirildi, hematomun görülebileceğine dair bilimsel veri bulunamadı(3, 6-10).

Kararlar: Mide duvarına Botulinum toksin-A (BTX-A) enjeksiyonu sfinkterleri gevşetici, antrum veya fundusta ise mide boşalmasını azaltıcı etkisi nedeniyle obezite tedavisinde etkili olabileceği düşünülmüştür(1-4,5).Yapılan çalışmalar gastric botulinum tedavisine bağlı dispeptik ve geçici semptomların olabileceği ve bunların da çok nadir görülebileceği bildirildi, hematomun görülebileceğine dair bilimsel veri bulunamadı(3, 6-10). Ülkemizde obezite tedavisi için intramural gastrikBotulinum toksin-A (BTX-A) enjeksiyonu sıklıkla uygulanmaktadır. BTX-A uygulaması sonrası bu tip şikayetler ile acil servise başvuran hastalar, acil servis hekimlerince komplikasyonlar açısından dikkatle takip edilmelidir.

Notlar (Opsiyonel): KAYNAKLAR1)Foschi D, Corsi F, Lazzaroni M, Sangaletti O, Riva P, La Tartara G et al. Treatment of morbid obesity by intraparietogastric administration of botulinum toxin: a randomized, double-blind, controlled study. International Journal of Obesity 2007; 31(4): 707- 712.Doi:10.1038/sj.ijo.0803451.2)Lee JH, Kim CG, Kim YW, Choi IJ, Lee JY, Cho SJ et al. Botulinum Toxin Injection for the Treatment of Delayed Gastric Emptying Following Pylorus-Preserving Gastrectomy: an Initial Experience. Journal of Gastric Cancer 2017; 17(2):173-179. Doi: 10.5230/jgc.2017.17.e18.3)Gui D, Mingrone G, Valenza V, Spada PL, Mutignani M, Runfola M et al. +. Effect of botulinum toxin antral injection on gastric emptying and weight reduction in obese patients: a pilot study Alimentary Pharmacology & Therapeutics 2006;23(5):675- 80.Doi:10.1111/j.1365-2036.2006.02773.x.4)Mahant

N, Clouston PD, Lorentz IT. The current use ofbotulinum toxin. J Clin Neurosci 2000; 7(5): 389–394. Doi:https://doi.org/10.1054/jocn.2000.0684.5)Zhao X, Pasricha PJ. Botulinum toxin for spastic GI disorders:a systematic review. Gastrointest Endosc 2003; 57(2): 219–235. Doi:https://doi.org/10.1067/mge.2003.98.6)Topazian M, Camilleri M, De La Mora-Levy J, Enders FB, Fox-orenstein AE, et al. Endoscopic ultrasound-guided gastric botulinum toxin injections in obese subjects:a pilot study. Obes Surg. 2008;18(4):401–7.Doi: 10.1007/s11695-008-9442-x.7) Gui D, De Gaetano A, Spada SL, Viggiano A, Cassetta E, Albanese A. Botulinum toxin injected in the gastric wall reduces body weight and food intake in rats. Aliment Pharmacol Ther 2000;14(6):829–834.Doi: 10.1046/j.1365-2036.2000.00765.x. 8)Bustamante F, Brunaldi VO, Bernardo VM, de Moura DTH, de Moura ETH, Galvao M et al. Obesity Treatment with Botulinum Toxin-A Is Not Effective: a Systematic Review and Meta-Analysis. Obesity Surgery 2017;27(10):2716-2723. Doi:10.1007/s11695-017-2857-5.9)Moura EGH, Ribeiro IB, Frazão MSV, Mestieri LHM, de Moura DTH, Dal Bó CMR et al. EUS-Guided Intragastric Injection of Botulinum Toxin A in the Preoperative Treatment of Super-Obese Patients: a Randomized Clinical Trial. Obesity Surgery 2019; 29(1):32-39. Doi: 10.1007/s11695-018-3470-y.10)Topazian M, Camilleri M, Enders FT, Clain JE, Gleeson FC, Levy MJ et al. Gastric antral injections of botulinum toxin delay gastric emptying but do not reduce body weight. Clinical Gastroenterology and Hepatology 2013; 11(2):145-50. Doi:10.1016/j.cgh.2012.09.029.

Anahtar Kelimeler: OBEZİTE, BOTULİNUM, HEMATOM

S- 070

Acute pancreatitis with normal serum amylase and lipase

Halil Alışkan[1]

[1]Şişli Hamidiye Etfal Education and Research Hospital

Background and aim: Acute pancreatitis is an acute inflammation of the pancreas. The disease is characterized by pathological changes of varying severity, ranging from mild form of edematous pancreatitis to severe necrotizing pancreatitis. Therefore, the prognosis of the disease is also variable. In 85-90% of the cases, mild and self-limited pancreatitis attacks caused by edematous interstitial inflammation, and severe pancreatitis disease develop in 10-15%. In severe pancreatitis, local or systemic complications with high mortality may occur. In this case, we aimed to present an acute pancreatitis patient with normal laboratory values.

Case: A 29-year-old male patient was admitted to the emergency department with abdominal pain and nausea. His history revealed that he had nausea that started two hours before his admission to the hospital. He hadn't used alcohol in 7 years and he was a social drinker. He had no history of gallstones. The patient's medical history was unremarkable. Vital signs at presentation were within normal limits. The intestinal sounds were reduced, and epigastric diffuse tenderness was present in the abdomen. There was no defence and rebaund. Other system findings were normal. Laboratory tests showed; leukocytes: 13,300 / mm3 (4,000-10,000 / mm3), creatinine: 0.91 mg / dl (0.75-1.25 mg / dl) Blood urea nitrogen: 9 mg / dl (8.9-20.6 mg / dl) AST: 25 (5-34 U / L) ALT: 56 (0-55 U / L) amylase: 38 (25-125 U / L) lipase: 13 (8-78 U / L) LDH: 149 (125-220 U / L) glucose: 101 (70-105 mg / dl). The other parameters were within normal limits. Intravenous (IV) contrast enhanced abdominal computed tomography showed increased pancreatitis density. The patient was consulted with the internal medicine clinic. Appropriate antibiotics and analgesics were started and hospitalized in the internal medicine department.

Conclusions: Contrast-enhanced abdominal CT imaging should be performed in patients presenting to the emergency department with typical abdominal pain, although patients with amylase and lipase values are normal in the diagnosis of pancreatitis. Normal amylase lipase values do not rule out pancreatitis. Patients with pancreatitis with typical belt pain and CT should be ordered for internal patients.

Keywords: acute pancreatitis, amylase, lipasa

S- 036

Ovarian and Uterine Inguinal Hernia in an Elderly Female

Ilknur VARLIK[1], Umut OCAK[1], Recep Sami OZAY[1], Erhan OZHAN[2], Murat SIVACILAR[3], Omur KESKIN[4], Melih YUKSEL[1], Mehmet Oguzhan AY[1], Halil KAYA[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine
[2]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Radiology
[3]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of General Surgery
[4]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Obstetrics and Gynecology

Background and aim: According to the National Institutes of Health, an inguinal hernia relatively common is a bulging of the contents of the abdomen through a weak area in the lower abdominal wall and most often contains fat or part of the small intestine. In women, inguinal hernias may contain part of the female reproductive system. When an inguinal hernia occurs, part of the peritoneum—the lining of the abdominal cavity—bulges through the abdominal wall and forms a sac around the hernia. They may become stuck, or incarcerated, meaning the contents of the hernia that bulge through the abdominal wall cannot be massaged back inside the abdominal wall. Pathologically, the uterus, ovary, and fallopian tube in the inguinal hernia are occasionally observed in newborn females. However, it is an extremely rare condition in geriatric females. We would like to present our patient with a left inguinal hernia containing the uterus, ovary, and fallopian tube and discuss the inguinal hernias.

Case: An 84-year-old female patient was admitted to our emergency department with a complaint of swelling and persistent pain in her left inguinal region for 2 weeks. It was learned that the swelling started 2 weeks ago. On physical examination, we detected a hernial bulge with dimensions of 8x8x7 cm. Although there was swelling, redness, and tenderness in the hernia, it was non-reducible and non-pulsatile. The patient's vitals were stable, and she was no other significant physical examination results. A sonographic workup was reported as incarcerated hernia whereas computed tomography of the abdomen indicated a uterus, ovary, and fallopian tube in a left inguinal hernia. Based on her medical history and assessment, she was diagnosed with an inguinal hernia containing the uterus, ovary, and fallopian tube which is known as an extremely rare disease requiring surgery. The patient was consulted with the surgery and underwent to the operation room for urgent hernia exploration.

Conclusions: An ovarian and uterine inguinal hernia can be the cause of inguinal mass and pain; therefore, it should likewise be considered in the differential diagnosis. Clinicians should be aware of this medical condition and remember that the treatment requires surgery.

Keywords: emergency service, geriatric, inguinal hernia, surgical urgency

S- 003

The Predictive Value of CURB 65 and Pneumonia Severity Index (PSI) in Patient with Covid 19 Pneumonia and Correlation with Laboratory Parameters

Hüseyincan ATEŞER[1], Ertuğrul ALTINBİLEK[2], Yunus Emre ARIK[2]

[1]Tunceli Devlet Hastenesi
[2]SBÜ İstanbul Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi

Background and aim: COVID-19 is a disease with high mortality rate caused by the SARS-CoV-2. It is important to identify patients with high risk. In this context, some scoring systems such as CURB-65 and PSI (Pneumonia Severity Index) have been defined. Also, some laboratory parameters like D-dimer, ferritin, Neutrophil lymphocyte ratio (NLR) are thought to be associated with mortality. This study aims to determine the ability of laboratory parameters and pneumonia scores to predict mortality in COVID 19 pneumonia.

Methods: This single-center retrospective study was conducted between 10.03.2020 to 10.06.2020. Patients who had COVID-19 pneumonia were enrolled. Patient information was obtained from the hospital database. CURB 65, PSI and PSI risk classification were calculated. Correlation analyses were performed between scores and laboratory parameters. ROC (Receiver Operator Characteristics) Analysis was performed for the prognostic value of the scores.

Results: Total of 312 patients were enrolled and demographic values were as follows; 175 (56.1%) male, 137 (43.9%) female, mean age 58.2±16.1 years and 127 (40.7%) had various comorbidities, especially hypertension 72 (23.1%). Mortality rate were 16% (n=50). CURB-65, PSI and PSI risk classification were higher in cases with in hospital mortality (p<0.001). CURB 65, PSI, PSI risk classification were positively correlated with, d-Dimer, ferritin and NLR. The area under the ROC Curve was 0.851 (95% CI= 0,803-0,899) for PSI, 0.833 (95% CI= 0,779-0,888) for PSI risk classification and 0.795 (95% CI = 0,725-0,865) for CURB-65. In determining mortality; optimal cut-off values were ≥1 for CURB 65 (sensitivity 86.0% specificity 61.1%), ≥86.5 for PSI (sensitivity 82% specificity70.6%), and ≥4 for PSI risk classification (sensitivity 76.0% specificity72.9%) respectively.

Conclusions: Although the sensitivity of PSI is higher than CURB 65 and PSI risk classification all of these scores were found to be eligible to predict mortality. Combining these scores with laboratory parameters can be useful in determining the COVID 19 prognosis

Keywords: CURB 65, PSI, Covid 19 pneumonia, mortality, NLR

S- 015

Evaluation of Patients Diagnosed with COVID-19

Muhammed Semih Gedik[1]

[1]Acil Tıp Anabilimdalı, Kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi, Kahramanmaraş/Türkiye

Background and aim: This study was conducted to share our experiences, analyses and results related to patients diagnosed with COVID-19 with the aim of contributing to the literature in the diagnosis and treatment of and the combat against the COVID-19 disease. Here, we report the epidemiological, clinical, laboratory and radiological characteristics of COVID19 patients as well as their treatments and clinical outcomes.

Methods: This study was conducted as a descriptive and epidemiological study. We included patients admitted to the secondary step public hospital in Kahramanmaras, affiliated with the Ministry of Health, and who were evaluated, followed-up and treated for diagnosed of COVID-19. The patients' data such as age, gender, complaints, blood test results, imaging findings, polymerase chain reaction (PCR) test results and prognosis were recorded.

Results: 73 patients diagnosed with COVID-19 were examined. 42.5% of the patients were aged 60 and over. The most complaints of the patients diagnosed with COVID-19, were cough, fever and shortness of breath. 57% of the patients had lymphocytopenia, and 42.3% had hypocalcemia.

Conclusions: While the typical symptoms are crucial in patients applying for COVID-19, healthcare workers should also pay attention to atypical symptoms. The PCR test is primarily used in the diagnosis of COVID-19, but detecting compatibility with COVID-19 in computerized tomography (CT) of the thorax is more effective in diagnosis. COVID19 patients have high D-dimer, C-reactive protein (CRP), procalcitonin (PCT) and ferritin levels and low lymphocyte levels. Most patients were observed to have a good general condition, with low overall mortality rates.

Keywords: "COVID-19", "Coronavirus", "SARS-CoV-2"

S- 161

INVESTIGATION OF PATIENT CROWDİNG AT THE TIME OF MORTALITY IN THE EMERGENCY DEPARTMENT

Ertuğrul ALTUĞ[1], Ahmet İRİCE[1], Hakan Kaan YILMAZ[1], Semih KORKUT[1], Ramazan GÜVEN[1], Mücahit KAPÇI[1]
[1]Basaksehir Cam and Sakura City Hospital, Emergency Department

INTRODUCTION: Millions of admissions are made to emergency services every day as a result of life-threatening diseases or accidents. Therefore, emergency services are health facilities that require rapid diagnosis, effective follow-up and treatment. Although mortality is a concept frequently faced by health professionals by the virtue of emergency services, the only thing that determines this situation is not the encountered patient profile. In this preliminary study, a single-center retrospective data analysis was conducted investigating the crowding in the time frame of mortality in the emergency department.

METHODS: This study was retrospectively performed between January 2021 and December 2021. Patients with emergency red area triage were included. Patients brought to the emergency department as cardiac arrest were excluded. The number of admissions per unit time of the patients with the selected triage code was determined. The data of the patients who had cardiac arrest and died in the emergency department follow-up were analyzed. The patient crowding and the average in the emergency room were determined from the time of admission to the time of death of the exitus patients.

RESULTS: A total of 73 patients, including 39 (53.4%) men and 34 (46.6%) women, who died in the emergency department follow-up in 2021, were included in the study. Age distribution was found to be 2-94 (min-max), median age was 61, and mean age was 59.42. The mean follow-up time was 583.95 minutes, and the mean number of patient admissions during the follow-up period was 39.10. The average annual patient crowding in the red area of the emergency room was 3.86 patients/hour, and the average patient crowding in the follow-up of the patients who died was 4.16 patients/hour.

Table 1. Demographic characteristics and follow-up data of the patients

Age	59.42(2-94)
Gender **Male(%)** **Female(%)**	 39 (%53,4) 34 (%46,6)
Average Follow-up Time in minutes (min-max)	583,95 (48-5409)
Average Number of Patient Applications During the Follow-up Period (min-max)	39,10 (2-301)
Annual Average Patient Crowding (Patient/Hour)	3,86
Average Patient Crowding in the Follow-up of Exitus Patients (Patient/Hour)	4,16

CONCLUSION: In our study, it was determined that during the time periods of mortality, the patient crowding was higher than the average in the emergency department. In order to provide critical patient care, various measures and comprehensive policies may be needed to compensate for the emergency department patient crowding.

DISCUSSION: Emergency departments are critically important health facilities where rapid and effective interventions are carried out in acute situations that are often out of the ordinary course of life. According to the WHO Health Statistics 2022(1) report, life expectancy after birth in Turkey in 2019 was 76.4 for the male gender, 80.7 for the female gender and an average of 78.6. Considering that mortality in emergency services is often seen as a result of acute events, it may be meaningful that the mean age of the patients who died in our

study was lower than the expected life expectancy. However, whether there is a correlation between the higher life expectancy in female gender and the higher male gender who died in the emergency department in our study, this may be a subject of further research.

There are many studies in the literature revealing the density and mortality rates of emergency services. (2,3) The hypothesis that there is a relationship between emergency department crowding and mortality comes up from time to time, However, the results of this study, which was conducted with a limited sample and did not include statistical analysis, are insufficient to explain the increased mortality rates in the emergency department at any rate. A larger sample set, statistical analysis and a more detailed study design are needed to understand the reasons for the increased mortality.

KEYWORDS: Emergency Department, Mortality, Crowding

REFERENCES:

1. WHO Health Statistics 2022: monitoring health fort he SDGs, sustainable development goals
2. Effect of Emergency Department Crowding on Outcomes of Admitted Patients Sun, Benjamin C. et al. Annals of Emergency Medicine, Volume 61, Issue 6, 605 – 611.e6
4. Berg LM, Ehrenberg A, Florin J, Östergren J, Discacciati A, Göransson KE. Associations Between Crowding and Ten-Day Mortality Among Patients Allocated Lower Triage Acuity Levels Without Need of Acute Hospital Care on Departure From the Emergency Department. Ann Emerg Med. 2019 Sep;74(3):345-356. doi: 10.1016/j.annemergmed.2019.04.012. Epub 2019 Jun 20. PMID: 31229391.

S- 044

TWO FATAL DIAGNOSIS IN A PATIENT AT THE FERTILE AGE WHO PRESENTED WITH ABDOMINAL PAIN: DIABETIC KETOACIDOSIS+ ECTOPIC PREGNANCY RUPTURE

Ayşe Nur Demirel[1], Ahmed Edizer[1], Yağmur Gökhan Semerci[1], Melih Uçan[1], Arife Aydan Ensari[1], Serkan Doğan[1]

[1]İstanbul Kanuni Sultan Eğitim ve Araştırma Hastanesi

Background and aim: Abdominal pain constitutes 40% of emergency department admissions. These pains; It can be in a wide spectrum from non-specific abdominal pain of no importance to other mortal causes. In this case, we see two causes of mortality at the same time.

Case: 22-year-old female patient had a suboptimal anamnesis due to language problems.The patient states that she is 1 month pregnant.Beta-Hcg value 1 week ago:13,000mIU/ml.She never been to the hospital for pregnancy. She states that she does not have any other chronic disease.The patient's pain has been increasing progressively for 3 days.There is widespread pain in the abdomen.There is no vomiting, diarrhea, constipation, dysuria. Physical examination was done.The general condition is bad. In pale view. In vitals, arterial blood pressure is 84/52 mmHg, pulse: 130 per/minute, respiratory rate:30per/minute,fever:36.6 centigradedegrees,capillary blood glucose:484. On abdominal examination, there is widespread defense and rebound in 4 quadrants.The RUSH protocol was applied to the unstable patient.There was no finding in favor of massive pulmonary embolism or acute coronary syndrome. Diffuse fluid was seen in Morrison's pouch and splenorenal area. Gestational sac could not be visualized in the pelvic region. Arterial blood gas analysis concluded quickly. pH:7.0 Co2:9 mmHg HCO3:5 mmol/L BE: -27mmol/L, Lac:20 mm/L Na:134 mmol/LK:3.87 mmol/L . Ketone +3 was seen in fully automatic urinalysis. Central venous catheterization was applied to the patient. Stage-4 shock and diabetic ketoacidosis were considered. 2 units of O Rh(-) ES were replaced. Bolus isotonic fluid therapy was started. The Department of Obstetrics and Gynecology was consulted. The patient was taken to the operating room with the preliminary diagnosis of ectopic pregnancy rupture by the relevant branch.

Conclusions: There may be more than one mortal cause of abdominal pain, especially in women of childbearing age. It is absolutely beneficial not to focus on a single diagnosis and to review the differential diagnoses over and over again.

Keywords: Ectopic Pregnancy

S- 213

Far Lateral Lumbar Disc Herniation in the Emergency Department

Adem MELEKOĞLU[1], Büşra DEMİRCİ SAMADOV[1], Ertuğrul ALTINBİLEK[1]

[1]Şişli hamidiye etfal e.a.h.

Background and aim: Lumbar-leg pain is one of the common causes of admission to the emergency department; Non-traumatic low back and leg pain includes 2-3% of all emergency department admissions. In addition to providing pain control in these patients, it is important to make the differential diagnosis for musculosketal, spinal cord, abdominal and retroperitoneal pathologies that may cause low back and leg pain. In this article, we present a case who presented to the emergency department with severe pain radiating from the left inguinal region and thigh to the knee.

Case: A 37-year-old female patient with a diagnosis of Multiple Sclerosis was admitted to the emergency department with complaints of pain radiating from the left groin and thigh to the anterior part of the left knee for the last two days. The patient has had intermittent pain from the waist to the hip for the last month. It was observed that the patient had paraesthesia in the left thigh of the lower extremity, difficulty in flexion, and a positive reverse Laseque test. Far lateral lumbar disc herniation was detected at the level of L3-L4 vertebra in her MRI. The patient was admitted to the neurosurgery clinic for surgical treatment.

Conclusions: Far lateral lumbar disc hernias represent a distinct category of disc pathology that includes both intraforaminal and extraforaminal lumbar disc hernias, characterized by their distinctive clinical presentation, diagnosis, and treatment methods compared to the more common central and pericentral disc hernias. These intraforaminal and extraforaminal lumbar disc herniations, often called distal lateral lumbar disc herniations, can compress the spinal nerve and dorsal root ganglion, causing severe, sometimes excruciating pain that often does not respond to conservative treatment and requires surgery. The femoral stretch test may be negative in patients with far lateral disc herniation. While MRI is the best imaging method to identify this particular disc herniation, multislice CT scanning is a good option if MRI scanning is not possible . Surgical treatment is rarely required in spinal cord-related pathologies in low back-leg pain, which is among the frequent emergency applications. These patients should be consulted for surgical treatment.

Keywords: Extra Foraminal Far Lateral Disc Herniation, lumbar disc hernias, emergency, Lumbar-leg pain

S- 169

Mad honey poisoning

Hazel Deniz Erdoğan[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Sarper Yılmaz[1], Rumeysa İnci[1]

[1]Kartal Dr.Lütfi Kırdar Şehir Hastanesi

Background and aim: Mad honey is made from the nectar of various species of the rhododendron plant, most commonly Rhododendron ponticum and Rhododendron luteum, which is mainly found in the eastern Black Sea area and has long been used for its supposed therapeutic properties in gastroduodenal disease, diabetes, hypertension and sexual dysfunction. Rhododendron plant is found mainly in the Black Sea region of Turkey,Nepal and the North and West regions of the Americas.Its main symptoms are nausea, vomiting, somnolence and syncope, the latter as a result of bradycardia and hypotension. Sinus bradycardia, nodal rhythms, and varying degrees of atrioventricular block are the most common cardiac rhythm disorders reported in mad honey intoxication/poisoning. In this case,we aimed to present the development of bradycardia after a history of eating honey in the anamnesis of the patient who applied with the complaints of vomiting, dizziness, visual and speech disorders.

Case: A 70-year-old male patient applied to the emergency department with vomiting, dizziness, visual and speech impairment. He has a known history of hypertension, diabetes mellitus, coronary artery disease. Vital signs on admission and bedside glucose results were as follows:blood pressure: 80/50 mmHg, pulse rate:35 bpm, respiratory rate:15 bpm, temperature: 37.5 C,GCS:15 mg/Dl. No pathology was detected in the physical examination.No pathology was detected in blood tests and imaging. When the patient's anamnesis was deepened,it was learned that his complaints started after a history of eating honey of unknown origin from Erzincan in Turkey.Electrocardiography was found to be compatible with sinus bradycardia. Adenosine 0,5 mg was administered intravenously. Control arterial blood pressure was measured as 120/60 mmHg and heart rate as 70 bpm. The patient, whose symptoms regressed after 6 hours of close follow-up, was discharged verbally.

Conclusions: The most effective diagnostic method in mad honey poisoning is anamnesis.It is especially important to know the origin of the honey consumed.In cases where no pathology is found to explain symptoms such as vomiting, syncope, and bradycardia in patients admitted to the emergency department, the history of eating honey should be questioned in the anamnesis. Patients evaluated as mad honey poisoning usually benefit from appropriate fluid hydration and atropine.

Keywords: bradycardia, dizziness, mad honey poisoning, vomiting

S- 165

Spigelian Hernia: Patient Presenting with Abscess on the Anterior Abdominal Wall

Bilge Kağan Sektioğlu[1]

[1]Sancaktepe Şehit Prof Dr İlhan Varank Eğitim Ve Araştırma Hastanesi

Background and aim: Spigelhernia is an extremely rare abdominal wall defect. Due to its anatomical structure, it is difficult to diagnose with physical examination.

Case: A 41-year-old female patient with abdominal pain for 15 days. She applied to the emergency department due to increased pain in the left lower quadrant and swelling and redness of the skin for the last 2-3 days. In the abdominal examination, there was a reddening swelling approximately 10 cm in diameter in the pelvic region in the left lower quadrant of the abdomen, a subcutaneous abscess, tenderness in both lower quadrants, defense, and rebound findings. In the abdominal computed tomography performed on the patient, an appearance consistent with an abscess with a diameter of 11 cm was detected in the region extending from the pelvis to the umbilicus in the left lower quadrant. The patient underwent surgery with these findings. In the laparoscopic exploration performed under the umbilicus with a camera, it was found that there was pus in the pelvis between the intestinal loops, and an incarcerated Spigelian hernia with the omentum in the left lower quadrant.

Conclusions: Medially, there is the Rectus Abdominis muscle, and laterally, the semilunar line. It develops in the weak area of the Spigelian fascia, at or below the arcuate line. In this hernia, there is a defect in the internal oblique and transversus abdominis muscles, while the external oblique muscle remains intact, so it is classified as an interparietal hernia. Due to this anatomical structure, it becomes difficult to diagnose with physical examination. Although Spigelian hernias constitute only 0.12% - 2.4% of all abdominal hernias, they are very important because of the high risk of incarceration (17-24%) and strangulation.

Notes (Optional): Physical examination, ultrasonography and computed tomography are helpful in the diagnosis stage.

Keywords: spigelian hernia, abscess, physical examination, ultrasonography, computed tomography

S- 143

Spontaneous Intracranial Hypotension

Mehmet Demir[2], Bilal Yeniyurt[1], Melih Uçan[1], Necati Akyılmaz[1], Serkan Doğan[1], Arife Çimen Atalar[2]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic
[2]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Neurology Clinic, Istanbul, Turkey

Background and aim: Spontaneous intracranial hypotension (SIH) is characterized by orthostatic headache, low cerebrospinal fluid pressure and diffuse pachymeningeal enhancement after intravenous gadolinium contrast administration. Magnetic resonance imaging (MRI) often plays a crucial role for correct diagnosis. Patients classically present with orthostatic headaches, but this symptom is not specific to SIH, and initial misdiagnosis is common.

Case: A 45-year-old male presented to the Emergency Department after awakening from sleep with an acute posterior bilateral headache. It was associated with nausea, vomiting, and bilateral tinnitus and worsened with exertion. Over-the-counter analgesics were ineffective. We described a case of SIH, whose clinical and imaging features are typical for this pathology. At MRI brain scan, the patient showed diffuse and intense pachymeningeal enhancement .

Conclusions: Orthostatic nature of headache is the most indicative clinical element to suggest the hypothesis of SIH; contrast-enhanced MRI provides qualitative and quantitative findings, leading the radiologist and the clinician to the final correct diagnosis. This case of spontaneous low CSF pressure headache is a relatively rare cause of headache and highlights the diagnostic and physical toll on a patient for a potentially curable cause of debilitating headache. The diagnosis, treatment, and management of the patient are dependent on excellent teamwork and coordination between an interprofessional team that includes internists, neurologists, radiologists, and neurosurgeons.

Notes (Optional): There will be two photos abaut our patient.

Keywords: postural headache, spontaneous intracranial hypotension, low cerebrospinal fluid pressure, headache

S- 078

A Rare Complication After Intragastric Botulinum Toxin-A Injection for the Treatment of Obesity: Hematoma

Muhammed Fatih CIRIL[1]

[1]University of Health Sciences, Sancaktepe Sehit Profesor Ilhan Varank Training and Research Hospital

Background and aim: Obesity is an increasingly common health problem with many comorbidities. Surgical treatments have become widespread due to the failure of pharmacological treatments. Due to the high side effects of surgical treatments, intramural injection of Botulinum toxin-A (BTX-A), which is thought to delay gastric emptying by strongly and long inhibiting smooth and striated muscles, is applied for therapeutic purposes. In our case, the diagnosis process of a very rare intramural hematoma complication that occurs after the injection of botulinum toxin into the stomach wall with endoscopic intervention is discussed.

Case: 42-year-old female patient; she applied to our emergency department with complaints of nausea and abdominal pain last 4 days and constipation last 2 days. Endoscopy and gastric botox application for obesity was performed 13 days ago in an external center. There was no history of additional disease. Vitals are stable at the time of application.On physical examination, there was diffuse tenderness in the upper quadrants of the abdomen and epigastric defense, and there was no rebound. WBC: 13.220 103/µL, neutrophil: 10.400 103/µL, hemoglobin:12.7 g/dl in blood count. No abnormality was detected in other laboratory parameters. Intravenous contrast enhanced abdominal tomography was performed because the patient's complaints did not regress after 40 mg of pantoprazole was administered intravenously. Diffuse thickening of the stomach wall and a hypodense area suggesting a 42 x 36 mm hematoma in the antipyloric region adjacent to the major curvature were detected (Figure 1). The patient was consulted to general surgery. He was hospitalized by general surgery for follow-up and treatment. Invasive intervention was not considered for the patient who did not have a decrease in hemoglobin and did not have active bleeding. After a one-day follow-up, the patient's complaints regressed and she was discharged.

Conclusions: In our country, intramural gastric BTX-A injection is frequently applied for the treatment of obesity. Patients who apply to the emergency department with such complaints after BTX-A application should be followed carefully by emergency physicians in terms of complications.

Notes (Optional): ı will add ct image and references at the end of the oral presentation

Keywords: hematoma, gastric injection, botulinuim

S- 146

Our patient experience given thrombolytic therapy in the Emergency Department

Utku Murat Kalafat[1], Ahmed Edizer[1], Muhammed Güner[1], Bilal Yeniyurt[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: We wanted to share our experience in acute ischemic stroke cases, which is one of the most common causes of morbidity in the emergency department and requires rapid and effective treatment.

Methods: Hemogram parameters of all patients who were started on thrombolytic therapy due to ischemic stroke in the Emergency Department were recorded. Patients who died within 24 hours were included in the mortality group, and those who did not die were included in the healthy group.

Results: We found that 79.25% of the 53 patients included in the study were in the surviving group, and 11 patients were in the deceased group. We found that leukocyte count and neutrophil count among hemogram parameters were significantly higher in the group without mortality compared to the group with mortality ($p<0.05$). We did not detect a significant difference between symptom origin times and aplication times.

Conclusions: Thrombolytic therapy, which is one of the effective treatment methods in acute ischemic stroke cases in the emergency department, is important in terms of survival and morbidity of patients. We think that leukocyte, especially neutrophil response in peripheral blood before treatment may be useful in terms of survival.

Keywords: stroke, Thrombolytic, Morbidity, Neutrophil, ischemic

S- 193

An Interesting Case of Blunt Abdominal Trauma

Enad Kenan[1], Melih Yüksel[1], Mehmet Oğuzhan Ay[1], Halil Kaya[1], Umut Ocak[1]

[1]University of Health Sciences Turkey, Bursa Faculty of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa,Türkiye

Background and aim: It is difficult to diagnose in patients with blunt abdominal trauma (BAT). Despite clinical, laboratory and radiological evaluation in observation, it may take time for clinical signs of intra-abdominal damage to appear. One of the most frequently injured organs in BAT is the stomach. However, isolated gastric perforation is rare and difficult to diagnose since injuries occur with the direct effect of trauma or the effect resulting from movement.

Case: A 23 year old male patient. 112 was called because he was hit by a machine while reversing while at work. The patient, who had no known chronic disease, suffered from pain and tenderness in the epigastric area in physical examination. Vitals were as follows: heart rate 100/min, blood pressure 127/78 mm/Hg , FAST USG negative. Lung X-ray and standing direct abdominal X-ray were taken. No subdiaphragmatic free air was observed. Whole abdominal tomography was taken, no feature was found.The initial laboratory tests of blood, such as blood routine test, liver function test, and international normalized ratio, were within normal limits.The patient was followed up in the emergency room. The patient's epigastric pain did not decrease despite analgesic treatment.General surgery was consulted, the patient was admitted to the general surgery service for follow-up, and the patient continued to have abdominal tenderness at Hour 23 of follow-up. Control abdomen CT was taken to the patient. His CT showed free air and fluid in the abdomen; as such, the operating room was prepared for the emergency operation.

Conclusions: Differential diagnosis of blunt abdominal trauma is difficult to diagnose and clinical symptoms may take time to show. In cases with suspected gastric perforation, early laboratory tests, direct abdominal X-ray and even computed tomography may not always help in the diagnosis. Patients should not be sent home directly after the first evaluation. In this process, repetitive control physical examination, laboratory and control ultrasound are important. We recommend that every patient with suspicious clinical signs be observed for at least 24 hours. We should not avoid regular examination of the patient.

Keywords: emergency medicine, blunt abdominal trauma, critical care

S- 138

Spontaneous Spinal Epidural Hematoma

Fatma Betül Çalışkan[1], Melih Yüksel[1], Halil Kaya[1], Umut Ocak[1], Mehmet Oğuzhan Ay[1], Enad Kenan[1]

[1]University of Health Sciences Turkey, Bursa Faculty of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa,Türkiye

Background and aim: Spontaneous Spinal Epidural Hematoma (SSEH), compressing the spinal cord and leading to acute neurological deficits, is a rare important condition. The incidence of SSEH is considered to be 0.1 per 100,000 per year. The source of bleeding is usually internal posterior vertebral venous plexus. The exact etiology of SSEH remains unknown in 40–50% of the patients, although vascular malformations, coagulopathy, epidural catheter and surgical trauma, anticoagulants, and the conditions causing increased intrathoracic intra-abdominal pressure such as cough and Valsalva maneuver have been reported as the predisposing factors for SSEH. Clinical manifestations of the SSEH are nonspecific. Therefore, it should be kept in mind especially in patients presenting with neurological deficits and a sudden onset of neck or back pain this symptoms depending on bleeding level.

Case: A previously healthy 39-year-old male patient presented to our emergency department with back pain, There was no recent medical history of trauma, infection, surgery, or anticoagulant use. The initial laboratory tests of blood, such as blood routine test, liver function test, blood creatinine, electrolytes, activated partial thromboplastin time, and international normalized ratio, were within normal limits. The blood pressure was normal. In the 3rd hour of the patient's follow-up in the emergency room, weakness in the legs was observed. In his repeat physical examination, it was observed that he was paraplegic, anesthetic from T4 level, anal sphincter tone disappeared, and deep tendon reflexes could not be obtained. MRI of the cervical and dorsal spines revealed a posterior epidural hematoma 42x9 mm from the C7 to T4 level with spinal cord compression. The patient was hospitalized in the brain surger department after diagnosis of SSEH and an emergency posterior approach decompression bilateral laminectomy and hematoma evacuation operation was performed from C7 to T4 .

Conclusions: Clinical manifestations of the SSEH are nonspecific. Therefore, it should be kept in mind especially in patients presenting with neurological deficits or a sudden onset of neck or back pain. Early diagnosis of these patients and rapid surgical intervention are of great importance in preventing permanent sequelae.

Keywords: Spontaneous Spinal Epidural Hematoma, emergency department, pain

S- 006

Evaluation of D-dimer and fibrinogen levels in COVID-19 patients

Şeyma Aras[1], Emine Emektar[2], Şeref Kerem Çorbacıoğlu[2], Yunsur Çevik[2]

[1]Erciş Sehit Rıdvan Çelik State Hospital, Van, Turkey
[2]Ankara Atatürk Sanatoryum Training and Research Hospital, Ankara, Turkey

Background and aim: The risk of thrombosis increases in the course of COVID-19.Indication algorithms for the administration of anticoagulant agents in COVID-19 patients are not clear. This situation may cause difficulties in the implementation of the diagnosis, follow-up and treatment procedures of covid patients. Herein, we investigated the admission and follow-up D-dimer and fibrinogen levels of COVID-19 patients, factors associated with their elevated levels, and their relationship with in-hospital mortality.

Methods: Patients aged 18 years and older who applied to the emergency and/or pandemic outpatient clinic of our hospital and were hospitalized and whose COVID-19 PCR test was positive were included. Demographic data, vital and physical examination findings, laboratory values including D-dimer and fibrinogen levels were recorded. $p < 0.05$ were considered statistically significant

Results: In patients with increased D-dimer value, age is older, chronic kidney disease is frequent, fever and pulse values are high, saturation measurements are low, the duration of the complaint is longer, the pneumonia of patient is severe, the hospital stay is longer, the need for mechanical ventilation and the need for intensive care is high were found ($p<0.05$ for all values).It was observed that the patients with increased fibrinogen were older and the duration of the complaint was longer. When the laboratory values of the patients with and without fibrinogen increase were compared, it was determined that the neutrophil, CRP and sedimentation values of the patients with increased fibrinogen were lower ($p<0.05$ for all values).

Conclusions: In our study we demonstrated that D-dimer levels measured at admission and during follow-up were higher in the deceased patients than the surviving ones. We did not detect any clinical association between admission and follow-up fibrinogen levels and mortality in the deceased patients as compared with the surviving ones.

Keywords: COVID-19, D-dimer, fibrinogen

S- 032

BLEEDING AFTER PERCUTANEOUS KIDNEY BIOPSY(PKB) THAT WAS TREATED WITH EMBOLIZATION

Dr. Fatih Ahmet ATEŞ[1], Associate Prof Dr. İsmail Okan YILDIRIM[1], Dr. Ali KARUL[2]

[1]1.İnönü University Turgut Özal medical Center, Faculty of Medicine,Department Of Radiology, Malatya, Turkey.
[2]2.Adıyaman University, Faculty of Medicine, Department Of Radiology, Adiyaman,Turkey.

Background and aim: Percutaneus kidney biopsy is a gold standard diagnostic and therapeutic tool for variety kidney related pathologies(1). Despite improved skills and ultrasound guidance, the mortality and morbidity due to percutaneus kidney biopsy is still not uncommon (2). We are presenting a case of renal haemorrhage after percutaneus kidney biopsy,that was treated with double embolization.

Case: 68 year patient was reffered to the nephrology clinic due to creatinine elevation after undergoing liver transplant in 17.11.2009 on a background of HBV superimposed with HDV, the patient who had indication for percutaneus kidney biopsy was consulted to interventional radiology. We performed,kidney biopsy on 25.08.2022, after the procedure the patient who was on close monitorization in the wards was noted to be hypotensive. The laboratory findings revealed that the haemoglobin level which was 13.1 g/dl before the intervention has reduced to 7 g/dl . Emergency CT abdomen was which showed an area of hematoma in the left kidney(pic1).The patient was reconsulted to the us, after we made an urgent embolization. During the procedure,fluoroscopy images reveals extravasation of contrast matter from the distal interlober artery of the lower pole(pic 2).The vascular described above was embolized with a coil, and the bleeding was controlled(pic 3).The patient was taken back to the nephrology ward, the patient continued to decrease in hemoglobin level, despite our intervention. The team consulted us again.The initially coiled lower lobe, left kidney was noted to be rebleeding(pic 4).We did a recoiling, to the same area we coiled initially, that was bleeding, hence achieved hemostasis(pic 5).

Conclusions: However much PKB, is seen a safe procedure, occurrence of major complication is not uncommon.

Notes (Optional): 1. MacGinley R, Champion De Crespigny PJ, Gutman T, et al. KHA-CARI Guideline recommendations for renal biopsy. 2019;24(12):1205–1213. doi: 10.1111/nep.136622.Fogo A. Renal pathology. In: Barratt TM, Avner ED, Harmon WE, editors. Pediatric Nephrology. Baltimore: Lippincott Williams & Wilkins; 1999. p.391-413.3.Alışır ES, Kılıçaslan I, Ecder T, ve ark Beş yüz on üç böbrek biyopsisinn klinikohistopatolojik açıdan değerlendirilmesi. ITF Dergisi 2005; 68: 43- 454.Eiro M,Katoh T,Watanabe T: Risk factors for bleeding complications in percutaneous renal biopsy. Clin Exp Nephrol 2005; 9 (1): 40-45

Keywords: Percutanous kidney biopsy, coil, embolization

S- 034

Lemmel's Syndrome

Saadet Büşra ÇİVİLİBAL[1], Mazlum KILIÇ[1], Ayşe Çağla ÖZMERT TOPLU[1]

[1]Department of Emergency Medicine, Fatih Sultan Mehmet Training and Research Hospital, Istanbul, Turkey

Background and aim: In 1934,Lemmel defined the compression of the common bile duct due to the diverticulum of the Juxtapapillary duodenum and biliary obstruction caused by this pressure as Lemmel's Syndrome.We wanted to share with you this rare syndrome that we manage in our emergency department.

Case: A 78-year-old female patient was admitted to the emergency department with complaints of pain radiating from the epigastric region to the back concomitant nausea and vomiting, which had been ongoing for 1 week. The patient also has a fever complaint but has never been documented.The patient's history of hypertension was present.It was learned that she had undergone surgery for breast cancer 10 years ago and had not received chemotherapy,radiotherapy.Cholecystectomy was present in the operation history.Indapamide 2.5 mg regularly using.Vital signs Fever:37.1° C ,TA: 139/65 mmHg, Nb:103/min, So2:96% respiratory rate:12/min. Physical examination:Examination of the abdomen,his sensitivity in the epigastric region and Murphy sign positive.Other system inspections were natural.In the lab: Leukocytes:14.200/mm3,Hemoglobin:12.4 g/dl,Platelet:332.000,C-rp:8.8 mg/L ALT:55 IU/L,AST:120 IU/L,Amylase:181 U/L,Lipase:75U/L,ALP:78U/L GGT:209U/L,Direct bilirubin:2.3 g/dl Total bilirubin:3.6 g/dl other parameters are within normal limits.In abdominal CT:Extra and intrahepatic bile ducts are dilated. Choledoch dilated,measured 11 mm. A Luminal structure of approximately 2.5 cm is observed which is evaluated in favor of duodenal diverticulum extending from the 2nd segment of the duodenum to the head of the pancreas and it contains air-fluid levels.The patient who was diagnosed with Lemmel syndrome was interned by general surgery.

Conclusions: DISCUSSION:There are many surgical and non-surgical differential diagnoses in cases with bile duct obstruction in emergency services. Complications such as diverticulitis,jaundice,bleeding and obstruction can be seen in 6.3% of duodenal diverticulum whose asymptomatic clinic is more common.The cause of the biliary obstruction factor in Lemmel's syndrome is sometimes chronic fibrosis secondary to the direct mechanical compression of the diverticulum,sometimes the pressure on the ampulla of the fecaloid filled into the diverticulum. CONCLUSIONS:Lemmel's syndrome is an uncommon pathology and should be kept in mind in the differential diagnosis of patients with biliary obstruction.

Keywords: Biliary obstruction, Lemmel's syndrome, Duodenal divertuculum, Abdominal pain

S- 219

A MEDICO-LEGAL CASE : LOWER ABDOMINAL PAIN

Nurgül Alpay[1]

[1]Sağlık Bakanlığı Üniversitesi İstanbul Fatih Sultan Mehmet Eğitim ve Araştırma Hastanesi

Background and aim: Abdominal pain's a very common cause of visits to emergency services. Most of them are benign cases, but sometimes they can be serious and urgent. This article's based on a case about a man with lower abdominal pain.

Case: 43 y/o male, came to emergency service by reporting left lower abdominal pain, nausea and oliguria for a week long. His vitals : body temperature:36.8, pulse:69, blood pressure:135/69, spo2:97%, first physical examination findings were normal except that he had left lower abdominal sensitivity. His medical history includes gastrointestinal hemorrhage, gastric perforation, no chronic diseases, no regular medication. Blood test results (offlimit values) WBC: 23,400/uL, NEU: 20.400/uL, CRP: 29.09 mg/dl. Contrast abdominal CT report: subileus. He couldn't decharge gass and feces. He was been consulted to general surgery(GS) department, and it's decided to hospitalize patient for detailed observation and confirming diagnosis. In GS service, the patient added his anamnesis another complain, which is left testicle pain. GS doctor exemined his scrotum and found out patient's left testicle was stiff, swelled, palpably painful. Patient was been consulted to urology department and had an scrotal colored doppler usg. Usg report: Left testicle echoes are heterogeneous and left testicle perfusion couldn't been visualized. There is 20 cc fluid collection and apparent thickening under scrotal skin. The patient had orchiectomy eventually.

Conclusions: Neglecting testicle pain can cause serious consequences for both patients and doctors. Because if reason of the testicle pain is testicular torsion, patient becomes aggrived and doctors may undergo to malpractice process.

Notes (Optional): DISCUSSION : Testicular torsion can be hard to diagnose because stating testicle pain to doctor can be uncomfortable for patients. Some patients don't want genital examination even if they had testicle pain. Or, if patient's main complain is lower abdominal pain, they can neglect the testicle pain in first place. On the other hand, if patients with lower abdominal pain are evaluated without genital examination, an important diagnosis such as testicular torsion may be missed.

Keywords: lower abdominal pain

S- 062

An Orf Case In Emergency Department

Cem Abacı[1], Ömer Faruk Karakoyun[2], Yalçın Gölcük[1]

[1]Muğla Sıtkı Koçman Üniversitesi
[2]Muğla Eğitim ve Araştırma Hastanesi

Background and aim: Orf is a zoonotic disease caused by the Orf virus from the Parapoxvirus family. It is common in sheep, lambs and goatsIt is characterized by papullovesicular and crusty lesions around the mouth and other hairless lesions. Orf is frequently seen in sheep and goat breeders.

Case: The 51 year old male patient stated that he cut the lesions of the lamb during the feast of sacrifice 15 days ago Vital signs: Tension arterial 130/70, Body temperature: 36.4 Heart Rate: 90 blood saturation (sPo2) :97. no comorbid disease There were hemorrhagic bullae with necrotic centers 1 cm in diameter on the lateral surface of the 4th phalanx.The patient stated that lesions developed in the contact areas after contact.

Conclusions: Orf disease should come to mind when people come into contact with animals such as goats and sheep, especially in spring and summer and during the feast of sacrifice It is important to pay attention to the ways of spreading the disease and hand hygiene.

Keywords: orf, zoonotic, infection, sheep, bullae

S- 125

TWO MORTAL DIAGNOSIS FOR THE ETIOLOGY OF PRERENAL ACUTE RENAL DAMAGE: PULMONARY THROMBO EMBOLISM+ABDOMINAL AORTIC ANEURYSM RUPTURE

Arife Aydan Ensari[1], Ahmed Edizer[1], Eren Sert[1], Bilal Yeniyurt[1], Ayşe Nur Demirel[1], Serkan Doğan[1]

[1]İstanbul Kanuni Sultan Eğitim ve Araştırma Hastanesi

Background and aim: In the geriatric population the diagnosis of patients may be missed despite optimal anamnesis and physical examination.Imaging and blood tests are more important in the diagnosis of such patients.

Case: 72-year-old male patient presented to emergency department with headache,and decreased oral intake. There are known diagnoses of hypertension,atrial fibrillation,coronary artery disease.He uses metoprolol, edoxoban. The patient has a history of hospitalization in an external center due to ischemic stroke 1 month ago. After thrombectomy, intracranial hemorrhage is observed as a complication in the patient.ECG:Atrial Fibrillation. The patient's blood tests were requested.Pathological values in hemogram parameters:Wbc:17.000, Neu:14.000.Other hemogram parameters are normal.Pathological values in biochemistry parameters:BUN:29,Cr:1,38(1 month ago Cr:0.7),CRP:81.No acid-base disorder was detected in arterial blood gas.Lac:2,4.Other parameters are normal.The patient was evaluated as acute kidney injury.Abdominal CT without contrast was performed to rule out post-renal causes.No pathology was detected in bilateral kidney dimensions in the image.Among the sections entered, aneurysmatic dilatation and peripheral thrombus were present in the abdominal aorta and it was observed that it extended to the iliac bifurcation level.Contrast-enhanced thoracic and abdominal computed tomography angiography was performed because the patient had a preliminary diagnosis of life-threatening abdominal aortic aneurysm rupture or aortic dissection.In the tomography imagenation,hypodense thrombus materials were observed in the right main pulmonary artery,reaching approximately 15 mm in its thickest part. In addition, hypodense acute thrombus materials involving the upper, middle and lower lobe segmental branches of the left main pulmonary artery and reaching approximately 10 mm in its thickest part were observed. Aneurysmatic dilatation is observed in the segment of approximately 10 cm before bifurcation in the abdominal aorta,and the lumen diameter reaches 60 mm in this section. Contrast leakage is present in the aneurysmatic region and is compatible with rupture.The patient was consulted with the cardiovascular surgery, and cardiology departments.He was referred by interventional radiology for the necessity of performing an aneurysmatic rupture procedure.

Conclusions: Abdominal aortic aneurysm is common in the community.Especially in patients with uncontrolled hypertension the rupture may present itself with isolated hypotension without clinical presentation.Concomitant pulmonary embolism may impair the patient's perfusion and increase mortality.

Keywords: Pulmonary Embolism, Acute Kidney Injury, Aort Aneurysm Rupture

S- 080

The value of SII index in predicting mortality in geriatric ER critical care unit patients

Sultan Özselçuk[1], Gülsüm Caliskan Günay[1], Ramazan Guven[1]

[1]Basaksehir Cam and Sakura City Hospital

Background and aim: The aim of our study is to show whether the SII index is useful in predicting mortality in geriatric patients with a high qSOFA score in the ER critical care unit.

Methods: Written informed consent was obtained from geriatric critical care patients with a qSOFA score of 2 and above. The outcomes of these patients in the emergency department were evaluated. Patients divided into 2 groups as mortal and non-mortal patients. Statistical analysis was performed between groups.

Results: This study included 200 geriatric patients who admitted ER critical care area with qsofa higher than 1. The mean age was 76,8±7,0. Diagnostic test performances of SII Index scoring, which was evaluated with the mortality variable in the study.It was determined that the SII Index score was above 648, the sensitivity of the SII index was 100% and the specificity was 31.9%. The frequency of being male was higher in patients with high Si index value ($p=0.047$; $p<0.05$). Presence of mortality was higher in patients with high SII index ($p=0.010$; $p<0.05$). A weak positive correlation was found between the patients' SII index score and ALT, BUN, and creatinine values ($r=0.164$; $r=0.182$; $r=0.152$), respectively. A weak negative correlation was found between the Na value and the Si index score ($r=-0.213$).

Conclusions: The SII index can be used as a useful predictor of mortality in geriatric patients with a high qSOFA score admitted to the emergency department. In male patients, the SII index may be a more useful predictor of mortality compared to female patients. There may be a relationship between the Na, ALT, BUN and creatinine value changes of the patients and the SII index. There is a needed further study on this subject.

Keywords: Sİİ index, mortality, geriatric, critical care unit, Emergency Department

S- 095

Guess what? Successful Treatment with Therapeutic Plasma Exchange on Acute Stroke!

Recep Sami OZAY[1], Umut OCAK[1], Mehmet Oguzhan AY[1], Melih YUKSEL[1], Halil KAYA[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa 16310, Türkiye

Background and aim: Thrombocytopenic thrombotic purpura (TTP) is a severe hemorrhagic syndrome characterized by thrombocytopenia, microangiopathic hemolytic anemia, and microvascular occlusion, besides the associated symptoms that may or may not be present: fever, neurological and renal impairment. We would like to present an acute ischemic stroke (AIS) case due to TTP.

Case: A 43-year-old man with a history of TTP diagnosed 2 years ago presented to our emergency department with a sudden speech impediment. Upon admission, he was alert, oriented, and awake with a Glasgow coma scale (GCS) score of 15/15. He was afebrile 36.4 C, had a blood pressure of 113/85 mmHg, and a regular pulse of 94 bpm. His neurological examination was remarkable only for dysarthria. Heart sounds were clearly audible and regularly with a 2/6 systolic murmur. The rest of the examination was unremarkable. The patient's electrocardiogram (EKG) showed normal sinus rhythm with no ST-T changes and the left ventricle (LV) ejection fraction and wall motion were normal on echocardiography despite mild mitral regurgitation performed in the emergency room. His laboratory findings were a white blood cell (WBC) count of 10,45/µL, hemoglobin of 8.3 g/dL, control hemoglobin of 8.8g/dL, platelet count of 32,000/µL, creatinine of 1.34mg/dL, c reactive protein (CRP) of 9mg/dL, prothrombin time (PT) of 12 seconds, activated partial thromboplastin time (aPTT) of 25.3 seconds, international normalized ratio (INR) of 1.06, troponin I of 2262ng/L, control troponin I of 2279ng/L. The initial diagnostic workup with head computed tomography (CT) was normal. Further diagnostic workup with emergent hyperacute brain magnetic resonance imaging (MRI) revealed punctate areas of restricted diffusion mostly anisotropic in diffusion-weighted imaging (DWI) within the bilateral frontoparietal, subcortical areas, and thalamus. The patient was diagnosed with AIS related to TTP and following neurology and hematology consultation the patient was hospitalized. The patient was cured with therapeutic plasma exchange (TPE) and aspirin treatment in 36 hours.

Conclusions: Stroke may be an atypical presentation of TTP. Emergency physicians should be aware of this serious disease and remember that early prediction, proper detection, and prompt treatment (with TPE) can improve prognosis, including the likelihood of recovery.

Keywords: emergency service, stroke, therapeutic plasma exchange, thrombocytopenic thrombotic purpura

S- 091

AIRWAY MANAGEMENT OF A FACIAL INJURY WITH NASOTRACHEAL INTUBATION

Julide Sayın Kart[1], Nihat Müjdat Hökenek[2]

[1]Department of Anesthesiology and Reanimation, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey
[2]Department of Emergency Medicine, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey

Background and aim: Traumatic lesions to the skin are a major problem faced by emergency services. Dogs are responsible for %60-80 of this kind of cases (1). Facial dog bite injuries continue to be a significant public health concern with the potential to create significant long-term morbidity, disfigurement, and even death (2).

Case: 58 years old woman patient with dog bite administired to emergency service. She reported multipl bites caused by her neighbors' dog (regularly vaccinated) one hour before. She has hypertension and heart failure in history. After monitorizing; arterial pressure was: 150/110 mmHg, fewer: 36.2°C, spO2: %98 were found. On physical examination, open wounds due to dog bite were detected on the face and all four extremities of the patient. The patient was consulted to plastic and reconstructive surgery, orthopedics, infectious diseases and then all wounds were clogged with soapy water and antibiotics were started. Plastic and reconstructive surgery decided to operate the patient under emergency conditions. In operation room , she was agitated and hemodynamically stable with Glasgow coma scale of 15. After standard monitorization and anesthesia induction, she was difficult intubation patient because of open wounds on her cheeks, and so nasotracheal intubated with number six spiral intubation tube. During the operation, which lasted for three hours, the patient was hemodynamically stable and no bleeding was observed.

Conclusions: Animal bite injuries carries infection potential and esthetic consequences; debridement might reduce insidence of these consequences. Facial region is richly vascularized so proper wound management and pimer closure is possible. On the other hand facial injuries are challenging and difficult in terms of airway management. As in this case, the operation can be successfully completed by making rapid, serial and preoperative preparations and taking them into the operation.

Notes (Optional): 1.Simao NR, Borba AM, da Silva ALF, Vieira EMM, Carvalhosa AA, Bandeca MC, Borges AH. Animal bite injuries to the face: A Case Report. J Int Oral Health 2013; 5(4): 68-72.2.Essig GF, Sheehan CC, Niermeyer WL, Lopez JJ, Elmaraghy CA. Treatment of Facial Dog Bite Injuries in the Emergency Department Compared to the Operating Room. OTO Open. 2019;3(3). doi:10.1177/2473974X19858328.

Keywords: anesthesiology, airway management, facial injury

S- 102

TREMOR ARTIFACT OR ATRIAL FLUTTER?

Enes Ferhatlar[1], Abuzer Coşkun[1], Burak Demirci[1], Furkan Parlak[1]

[1]HSU, Bagcilar Training and Research Hospital, Emergency Medicine Department, Istanbul, Turkiye

Background and aim: Electrocardiogram (ECG) artifacts are very common and should be known to emergency physicians. Some artifacts also mimic serious cardiac problems and cause unnecessary hospitalization and even incorrect procedures and treatments on patients. Tremors can cause electrical artifacts, mimicking problems such as atrial flutter (AFL), atrial fibrillation (AF), and ventricular tachycardia (VT). We present the ECG artifact caused by panic attack-induced tremor.

Case: A 53-year-old male presented to our emergency department with atypical chest pain and chills. The patient had a known history of diabetes mellitus (DM) and coronary artery disease. At the time of admission, blood pressure was 160/90, heart rate was 77 beats/min, saturation O2: 95%, fever was 36.7%. He was conscious, oriented and cooperative, and his neurological examination was normal. Other systemic examinations were normal. ECG taken at the time of admission showed atrial flutter-like P waves in lead I and chest leads while in sinus rhythm in other leads (Figure 1). The patient's ECG, which was taken again by holding her trembling legs, showed normal sinus rhythm.

Conclusions: While interpreting the ECG, all leads should be carefully examined and examined in detail. According to the Einthoven triangle theory, Lead I shows the electrical activity between the right and left arm, Lead II shows the electrical activity between the right arm and left leg, and Lead III between the left arm and left leg (Figure 2). Hong-Li Zhai et al. reported a case with sinus rhythm in Lead II, similar to VT in other limb leads. When they took the ECG again by holding the patient's left hand, they saw that all the leads were in sinus rhythm and diagnosed the patient with Parkinson's. In our case, the cause of the tremor was the patient's panic attack. Emergency medicine physicians should be well aware of ECG artifacts, as misinterpreting ECG artifacts may result in unnecessary hospitalization, procedures, and dangerous interventions for the patient.

Notes (Optional): A good example of ECG pathophysiology in acute rhythms

Keywords: electrocardiogram, atrial flutter, emergency department

S- 221

Purple Urine Bag Syndrome: A Rare Diagnosis

Yucel Yuzbasiogu[1], Serkan Paltacı[1], İnan Beydilli[1], Zikret Köseoğlu[1], Ali Börekoğlu[2]

[1]Univerctiy of Healty Sciences, Mersin City Hospital, Department of Emergency Medicine, Turkey
[2]Univerctiy of Healty Sciences, Mersin City Hospital, Urology

Background and aim: Purple bladder syndrome is a rare clinical condition characterized by the interaction of indigo (blue) and indirubin (red) pigments, which are released by tryptophan metabolism due to bacterial colonization in the urinary catheter, with polyvinyl chloride (PVC) containing material(1,2). We wanted to present our case of a woman with purple bladder syndrome, an immobile woman with a bladder catheter inserted for a long time.

Case: An 84-year-old female patient was admitted to our emergency department with complaints of bad odor and purple color in the last week, in which the bladder catheter has been inserted continuously for two months. It was learned that the patient had a stroke 2 months ago and became bedridden and had a bladder catheter inserted since that day. In vital signs of the patient, fever 37.5° blood pressure 90/60 mmHg pulse 90 beats/min laboratory findings creatinine 0.3 mg/dl, urea 49 mg/dl, wbc 6.08 (x10^3/uL), CRP 4.35 mg/dl, urine In the assay, it was determined as leukocyte 211, erythrocyte 5, ketone ++, nitrite + in each field. The patient's bladder catheter had a purple comelid (Figure 1). When we transferred it to the urine container, there was a purulent urine image (Figure 2).

Conclusions: Purple urine bag syndrome (PUBS) is a rare phenomenon which can be highly concerning and distressing for patients and their relatives (1). In most cases, UTI is due to E. coli, but many other bacterial infections have been found to cause PUBS(2). Su et al. were faced with an 81-year-old woman with fever and discoloured urine who was bedridden and chronically catheterised(3). Each catheter specimen of urine grew Proteus mirabilis for which Su et al. prescribed IV antibiotics and changed her catheter. Bocrie et al. cared for an 87-year-old female with postfall syndrome and urinary retention for which she had a catheter and faecaloma, the latter two being particular risks for PUBS. Investigations yielded a diagnosis of asymptomatic bacteriuria due to Escherichia coli which was treated with her catheter being changed(4). We changed the catheter in our patient, took a urine culture and discharged him with a broad spectrum antibiotic.

Keywords: purple urine bag syndrome, chronic bladder catheterization

S- 018

Investigation of Tuberculosis Infection-Associated Spontaneous Pneumothorax; Case Series

Ertuğrul ALTUĞ[1]

[1]Basaksehir Cam and Sakura City Hospital, Emergency Department

Background and aim: The causative agent of tuberculosis, which is the leading cause of death due to respiratory tract infection in the world, is Mycobacterium Tuberculosis Bacillus. In 2003, it was reported that there were approximately 9 million new tuberculosis cases worldwide and it caused 1.7 million deaths. Generally, it is common in African countries. One of the complications of tuberculosis is pneumothorax. In this study, we aimed to examine the relationship between tuberculosis and pneumothorax.

Case: Case-1: A 21-year-old male patient applied to our clinic with complaints of fever, chills and shortness of breath. He came to our country from abroad about 2 months ago. 4-drug therapy was started for tuberculosis. The patient was discharged from the hospital in a healthy condition after approximately 2.5 months.Case-2: An 18-year-old male patient was brought to our clinic by ambulance with complaints of fever and dyspnea from the airport. The patient was traveling from Afghanistan. The patient's ARB test was positive. The patient was started on tuberculosis 4-drug therapy. The patient was discharged from the hospital approximately 1.5 months later.Case-3: A 24-year-old male patient was admitted to our outpatient emergency department with fever and dyspnea. It was learned that the patient had a history of returning from abroad (Africa) about 10 days ago. 4-drug therapy was started for tuberculosis. Hatsa was discharged in approximately 55 days.

Conclusions: The travel history of patients who applied to the emergency department and were diagnosed with pneumothorax with the complaint of fever should be questioned and tuberculosis should not be forgotten in the differential diagnosis of fever. It should be kept in mind that the treatment of pneumothorax may take longer than normal.

Keywords: Tuberculosis, Pneumothorax, Treatment

S- 129

Evaluation of Demographic and Laboratory Parameters of Acute Coronary Syndrome Cases During and Before the COVID-19 Pandemic

Betül Çam[1], Abuzer Coşkun[1], Burak Demirci[1], Hatice Karaçam[1], Burak Akın[1]

[1]University of Health Sciences, Bagcilar Training and Research Hospital, Istanbul, Türkiye

Background and aim: Both ischemic heart diseases and COVID-19 are the two main patient groups who frequently apply to emergency clinics recently. We aimed to evaluate the impact of the COVID-19 pandemic on the demographic and clinical processes in acute coronary syndrome (ACS) cases.

Methods: This retrospective, single-center study was conducted on ACS patients who applied to emergency department between March 10, 2019 and March 11, 2021. While the patients were divided into two as pandemic and prepandemic, the pandemic period was also grouped as COVID (+) and (-). ACS classification, clinical and laboratory results of the patients were evaluated.

Results: The mean age of 1067 patients included in the study was 58.0±19.2 years and 785 (73.5%) were male. 262 (48.3%) of 542 cases in the pre-pandemic period were non-ST myocardial infarction (NSTEMI) and 202 (37.3%) were ST elevated myocardial infarction (STEMI). Among the COVID(+) cases in the pandemic group, 194 (76.9%) of 252 patients were NSTEMI and 34 (13.6%) were STEMI (p=0.001, p=0.013). During the pandemic period, STEMI was responsible for 7 (87.5%) of the 8 deaths in the COVID(-) group. In contrast, 20 (77%) of 26 COVID (+) deaths occurred in the NSTEMI group. NSTEMI mortality was considerably greater in the COVID(+) group (p=0.001).

Conclusions: Rapid care of instances of acute coronary syndrome in the emergency department has an effect on patient outcomes. Determining the severity, risk factors, laboratory findings, and outcomes of COVID-19 disease is crucial for a complete understanding of the mechanisms that can induce acute coronary syndrome in SARS-CoV-2 infection and for the development of strategies to facilitate the diagnosis and transfer of treatment in these patients.

Keywords: Emergency Department, COVID-19, acute coronary syndrome, mortality

S- 167

Attitudes of Non-Physician Health Workers Working in the Emergency Department towards Euthanasia, Death, and the Terminally Patient

Ökkeş Zortuk[1], Fatih Selvi[1], Cihan Bedel[1], Günay Yıldız[1]

[1]Department of Emergency Medicine, Health Science University, Antalya Training and Research Hospital, Antalya, Turkey

Background and aim: The use of the right to die in the center of the individual's own decision is called euthanasia. This decision; was evaluated from legal, religious, and medical perspectives. İn different countries applied euthanasia, which can be performed actively or passively. In our study, we planned to investigate the perspectives of healthcare professionals working in the emergency department about euthanasia and their thoughts on diseases that can be applied to euthanasia.

Methods: A survey was conducted on non-physician health workers working in the Emergency Service of a tertiary education and research hospital. A questionnaire including demographic data, professional knowledge, and Attitude Scale towards Euthanasia, Death, and the Terminally Patient was administered to the healthcare professionals who agreed to participate in the study. The obtained data were analyzed.

Results: In the study, the feedback of 60 participants, 37 of whom were women, was evaluated. The mean age of the entrants was found to be 39.07±10.11 years. 60% of the participants had received cardiopulmonary resuscitation training in the past year. 70% of the participants stated that they could be euthanized for coma, 38.33% for severe disability, and 36.67% for severe and incurable neurological diseases.

Conclusions: In the process of euthanasia, which does not have a legal infrastructure in our country, different perspectives are seen from different departments of health services. However, emergency services, where emergencies are resolved in the follow-up and treatment of the patient, do not have sufficient observation and evaluation conditions for the making and implementation of euthanasia decisions.

Keywords: Euthanasia; Non-health Workers; emergency department

Author Note: Euthanasia: It is an issue that concerns many different sciences, especially religion, law, and medicine, and has been discussed for many years. The right to life is the most basic right of the individual and is accepted all over the world, countries are obliged to protect it and take the necessary measures. If euthanasia is accepted as the right to die, the problem of violation of the right to life arises among the rights that cannot be disposed.The most important aim of medical science is to save human health and find a cure for diseases, and in this direction, medicine is constantly renewing itself. The issue of euthanasia can also lead to prejudiced attitudes and thoughts in healthcare professionals. Opinions and opinions of healthcare professionals are important because they contain different opinions and discussions about euthanasia all over the world. It will be important to include the opinions of non-physician health personnel, who are among the most basic employees in health care, on euthanasia issues, in terms of discussing both ethical and legal problems in this regard. In this study, it is critical to determine the opinions of non-physician health professionals working in health care on euthanasia in terms of contributing to the literature. Therefore, in this study, we aimed to determine the ideas of non-physician healthcare professionals on euthanasia. We confirm that this work is original and has not been published elsewhere nor is it currently under consideration for publication elsewhere. With this report, we think that readers will be interested and the citation potential is high. Please address all correspondence concerning this manuscript to me at cihanbedel@hotmail.com Thank you for your consideration of this manuscript.

S- 031

Should We Remove Foreign Body from Esophageal, Rectal, Eye, Nose and Ear?

Ahmet Melih Savaş[1]

[1]Amasya Merzifon Kara Mustafa Paşa Devlet Hastanesi

Arka plan ve amaç: In this presentation, it is aimed to explain the approach, emergency situations and foreign body removal methods in patients who come with foreign body complaints.

Yöntemler: FOREIGN BODY IN THE EYE:Foreign bodies in the eye are usually tried to be removed with irrigation and cotton applicator.An emergency ophthalmologist consultation should be requested in fully penetrating, deep foreign bodies, large foreign bodies, visual impairment, presence of hyphema and cornea-sclera laceration. FOREIGN BODY IN THE NOSE:Objects such as batteries and magnets in the nasal area cause damage and must be removed immediately.Primarily, the less invasive blowing by closing the unaffected nostril or mouth and the application of oral positive pressure by closing the unaffected nostril are used. Then, forceps method, vacuum catheter method are used invasively. ENT consultation should be requested in cases where there is difficulty in removing the object, in risk of aspiration, in deeply located foreign bodies, in objects such as button batteries. FOREIGN BODY IN THE EAR:Foreign body in the external ear canal comes first in pediatric foreign body applications in emergency services. Curettes, right-angle hook, and angled alligator forceps are used to remove.Urgent ENT consultation should be requested in cases where tympanic membrane damage, caustic substance damage, and removal of the object is traumatic.ESOPHAGEAL FOREIGN BODY:Foreign bodies can cause airway obstruction or perforation. Emergency endoscopy is required in cases of complete esophageal occlusion, sharp or long objects, watch battery, perforation, airway obstruction, and presence of a foreign body for more than 24 hours. RECTAL FOREIGN BODY:Rectal foreign bodies must be removed as they may cause perforation, ileus, sepsis and peritonitis. In emergency services, distal and blunt rectal foreign bodies can usually be removed, but if there is a sharp-edged object, if the foreign body is large, or if the patient has signs of perforation, surgical intervention is required.

Sonuçlar: Foreign bodies in the body are frequently present in emergency departments.

Kararlar: According to the type and localization of these foreign bodies, emergency physicians should be well aware of the situations in which they should be removed urgently and the removal methods.

Anahtar Kelimeler: foley, button battery, foreign body, perforation

S- 217

PREDICTIVE FACTORS AFFECTING PROGNOSIS IN CASE OF ACUTE PYONEPHROSIS

Umut Unal[1], Hakan Anıl[2], Akkan Avcı[3]

[1]Department Of Urology, Adana Cıty Teachıng And Research Hospıtal, Unıversıty Of Health Scıences, Adana, Turkey
[2]Department Of Urology, Adana Seyhan State Hospıtal, Mınıstry Of Health, Adana, Turkey
[3]Department Of Emergency, Adana Cıty Teachıng And Research Hospıtal, Unıversıty Of Health Scıences, Adana, Turkey

Background and aim: The aim of this study is to determine the prognostic factors affecting the recovery period of patients diagnosed with pyonephrosis in the emergency department.

Methods: Electronic records of patients admitted to the emergency department between August 2018 and August 2022 and hospitalized to the urology department with the diagnosis of acute pyonephrosis were retrospectively analyzed. The relationship between white blood cell (WBC) count, C-reactive protein (CRP) level, fever, systolic blood pressure, pulse, creatinine values at the time of admission to the emergency department and recovery period was evaluated. The recovery criteria of the patients were WBC count below 12000 mcL, body temperature below 37.4 °C and vital signs were stable.

Results: 53 patients were included in the study. The mean age of the patients was 53.2 ± 11.7 years. 30 patients were male (56.6%) and 23 patients were female (43.4%).The cause of pyonephrosis of the patients was obstructive urinary system stones. Mean WBC count at admission to the emergency department is 24*103 ± 4*103 mcL, CRP level is 77 mg/L, fever 38.7°C (interquartile range, 38-39.5) systolic blood pressure 112.2 ± 11.4 mm Hg, heart rate 98 ± 10.1 beats/minute, creatinine was 1.1 ± 0.2 mg/dL, hourly urine output was 42.6 ± 12.7 mL. A percutaneous nephrostomy catheter was inserted within the first 24 hours after admission to the urology department, and empirical antibiotic therapy was started in line with the recommendation of department of infectious diseases and clinical microbiology. The relationship between the patients' baseline values before admission to the emergency department and the recovery period of the patients was evaluated by linear regression analysis. High WBC count and CRP level, and low systolic blood pressure were found to be predictive factors for clinical improvement (respectively: $\beta=0.326$, $P<0.001$; $\beta=0.532$, $P=0.006$; $\beta=0.654$, $P<0.001$).

Conclusions: Pyonephrosis is one of the urological emergencies. Drainage and antibiotic therapy should be started quickly. In these cases, the coordination of emergency-urology departments is important in terms of not delaying the treatment. High white blood cell count and CRP level and low systolic blood pressure are predictive factors for prognosis.

Keywords: Pyonephrosis, Urinary system stones, Percutaneous nephrostomy catheter

S- 116

Metastatic intra atrial mass

Bora Baltacıoğlu[1], Cihan Bedel[1], Fatih Selvi[1]

[1]Acil Tıp Kliniği, Antalya Eğitim ve Araştırma Hastanesi, Antalya, Türkiye

Background and aim: A 64-year-old man with chronical obstructive lung disease and serebrovascular disesase has admitted to emergency medicine with complaints of dyspnea and chest pain. Lung cancer is one of the most common causes of these symptoms. In this case, we will discuss about the patient with a mass that invaded the left atrium of the heart from the lung.

Case: A 64-year-old man with chronical obstructive lung disease and serebrovascular disesase has admitted to emergency medicine with complaints of dyspnea and chest pain. He had never been diagnosed with cancer before. On physical examination, the general condition of the patient was good, conscious, cooperative, oriented, and her Glasgow coma score (GCS) was 15. Vital signs showed; body temperature 36,7°C, respiratory rate:24/min, heart rate of 116/min, blood pressure of 112/76 mmHg, and SPO2 of 95%. Electrocardiograph showed atrial fibrillation with rapid ventricular response. Lung sounds were normal on auscultation. Heart rhythm returned to normal sinus rhythm without treatment. A mass in the left atrium was seen on bedside ultrasound imaging. Thorax ct imaging revealed a mass-atelectasis complex that starts from the mediastinal area and extends to the suprahilar and hilar areas, causing total atelectasis in the upper lobe of the right lung and segmental atelectasis in the middle lobe of the right lung. The mass lesion described appears to invade the left atrium. It invades the mediastinum. The patient was then consulted to the cardiologist and medical oncologist. Ejaculation fraction was 65%.

Conclusions: The patient was later discharged. Lung cancer ranks high among the underlying causes of patients who apply to the emergency department with chest pain or shortness of breath. We wanted to draw attention to these cardiac complications of lung cancers that cause shortness of breath and chest pain, although they are not as common as embolization and pleural effusion.

Notes (Optional): intra atrial mass

Keywords: atrial, mass, lung, cancer

S- 079

A Rare Cause Of Ileus : Gallstones

Sevilay Biyikli[1], Murside Yayli[1], Gulizar Kacar[1], Nedim Uzun[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background and aim: Gallstone ileus is when one or more gallstones are impacted in thegastrointestinal tract between the stomach and rectum and cause obstruction.It usually passes through a bilioenteric fistula that develops as a result of recurrent cholecystitis.Fistula localizations are listed as cholecystoduodenal (76%), cholecystocolic (11%), cholecystogastric (6%),choledochoduodenal (4%), cholecystocholedochal (3%) according to the frequency of occurrence.Gallstone ileus is seen in 0.3-0.5% of all cholelithiasis cases.Intestinal obstruction is usually seen when the stone is over 2.5 cm.It is mortal with a rate of approximately 15% due to advanced age, co-morbidities and delay in diagnosis.

Case: A 42-year-old male patient applied to our emergency department with complaints of nausea,bilious vomiting, and abdominal pain.The patient without chronic disease had cholelithiasis for 4 years, but was not followed up.Examination revealed diffuse abdominal tenderness, defense and rebound.Vital values were normal.There was spontaneous gas-stool discharge.Upon detection of CRP: 86 mg/L and WBC with neutrophil dominance: 17,680 mcL in laboratory examinations, iv contrast-enhanced abdominal CT was requested.The report of the CT ; Calculus was observed in the lumen of the gallbladder, and the wall of the bladder was diffusely thickened (stony cholecystitis).No cleavage was observed between the gallbladder and duodenum, and a fistula tract was observed between the gallbladder and duodenum.At the jejunum - ileum junction, an appearance of gallstonesis observed in the intestinal lumen, and an appearance compatible with gallstone ileus is present at the proximal part of this level.Oral intake of the patient was stopped, intravenous hydration was started.The patient was admitted to the general surgery service with the diagnosis of ileus due to gallstones.Enterotomy and gallstone extraction were performed after hospitalization in the generalsurgery service.

Conclusions: Although gallstone ileus is a rare cause of small bowel obstruction, it constitutes 1-4%of all mechanical obstructions.Gallbladder pathologies should definitely be questioned in the anamnesis of ileus patients. Diagnostic imaging plays an important role in the management of patients with suspected gallstone ileus, as early diagnosis can reduce mortality.Abdominal Computed Tomography is the preferred method because it provides rapid diagnosis.Surgery remains the goldstandard treatment.

Keywords: ileus, cholecystitis, gallstones

S- 195

If You Have Ankylosing Spondylitis Don't Even Think of Falling

Murside Yayli[1], Mustafa Yasin Okten[1], Sevilay Biyikli[1], Gokhan Cabar[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital
[2]Veteranottomanpasha training and research hospital

Background and aim: We illustrate the case of an unstable fracture of scapula, clavicula and multiple costas in ankylosing spondylitis (AS) after minor trauma.

Case: A 56-year-old man fell backwards from the standing motorcycle, (diagnosed as ankylosing spondylitis.) Manifested as pain in right shoulder and right side of his back. In physical examination there was broad severe pain in his right thoracal costas. Also he was not able to move his shoulder because of severe pain. He could not lay backwards for CT due to AS and back pain. In his X-ray examination, deplaced right costal fractures and clavicula fractures were detected After 5 mg Morphine infusion, CT taken. In lateral and posterior arches of the 5, 6, 7, 8, 9 and 10th costas, corpus of the right scapula, archus of the right clavicula; deplaced fractures were seen. In the right hemithorax, a 15 mm thick hemothorax was seen. Pneumothorax was absent.In further examination, any pathological finding in abdomen and vertebraes was not detected.

Conclusions: For follow-up by the thoracic surgery department, the patient was dispatched to another health institution.

Notes (Optional): This case demonstrates the severity of injury after minor trauma in the context of ankylosing spondylitis. This case shows the importance of clinical suspicion of such injuries allowing early diagnosis, treatment, and reduced complications.

Keywords: ankylosing spondylitis, taruma of ankylosing spondylitis, scapula fracture, clacvcula fracture, costal fracture

S- 084

Evaluation of Consultation Periods in Emergency Service Applications in Geriatric Patients

Ertuğrul Altuğ[1], Ahmet Sırrı Yılmaz[1], Kemal Şener[1], Mücahit Kapçı[1], Semih Korkut[1], Ramazan Güven[1]

[1]Basaksehir Cam and Sakura City Hospital, Emergency Department

Background and aim: Thousands of geriatric patients are admitted to emergency services every day. Comorbidity in these patients complicates the management of the patients. In addition, difficulties in getting healthcare services for geriatric patients increase mortality rates. In this preliminary study, the time spent for consultation in the emergency department was evaluated in the group of patients over the age of 65 who applied to the emergency department and were hospitalized.

Methods: In this retrospective study, patients over the age of 65 who applied to the emergency department of a tertiary hospital between January 2022 and June 2022 and were hospitalized due to their related clinical condition were included.

Results: A total of 106 patients, 45 females and 61 males, were included in the study. The median value for age distribution was 76.03 (65-90). The average hospitalization time of the patients was 861 minutes. The average number of consultations of the patients who were admitted to the hospital was 9. The number of 1-month mortality was 27.

Conclusions: More than one consultation is made before internationalization in geriatric patients when they apply to the emergency service. It was seen that the clinic applied for in the first consultation request was internal medicine. In addition, the department where consultation was made and the department where hospitalization was made from the emergency department were compatible with each other.

Keywords: Geriatrics, Consultation, Emergency Service

S- 194

Is Pediatric Head Trauma Cause or Effect? : A Case Report

Ahmet Akif Durak[1], Oğüzhan Oğuz[1], Hakan Oğuztürk[1], Özgür Hakan Büyükpoyraz[1], Gülseven Yıldırım[1]

[1]Ankara Şehir Hastanesi

Background and aim: The most common causes are falls, child maltreatment and motor vehicle accidents. While cardiac, neurological and metabolic causes are investigated in elderly patients who present to the emergency department for head trauma, they are ignored in pediatric patients.

Case: A one year old male patient applied to the emergency service after falling from a height of 50 cm on his left side the previous day. On physical examination, hemiparesis in the left upper and lower extremities and effacement of the left nasolabial sulcus are present. He seems unable to maintain his balance while standing unassisted. Brain tomography, cervical and extremity two sided radiographs are taken. No acute pathology is detected. Neurosurgery and pediatrics consultation is requested. Since no acute surgical pathology was detected by neurosurgery, outpatient control is recommended for cervical MRI planning. He was hospitalized in the pediatric service for further examination. Diffusion MRI taken in the service: "An area of 17x15 mm diffusion restriction (infarct?) in the periventricular area on the right, in the body part of the caudate nucleus, extending to the levels of the internal capsule and globus pallidus inferiorly." Pediatric neurology, cardiology and hematology consultations are made for etiology research. The patient was discharged after 14 days of hospitalization and investigations for the etiology of ischemic stroke continue.

Conclusions: In terms of emergency medicine, it should not be overlooked that there may be secondary reasons in pediatric patients in cases of trauma. Department consultation should be made regarding possible preliminary diagnoses and if necessary hospitalization or referral to advanced centers should be provided for further examination.

Keywords: Pediatric trauma, Stroke, Hemiparesis

S- 071

A RARE CASE İN ADULTS: INTUSSESCEPTION

Sevilay Biyikli[1], Gokhan Cabar[1], Murside Yayli[1], Ozge Kocak[1], Mustafa Calik[1]

[1]Gazıosmanpasa Traınıng And Research Hospıtal

Background and aim: Intussusception is a clinical condition characterized by the penetration of the proximal bowel segment into the distal segment.They can occur subacute or chronically in adults.The most common admission to the emergency department is abdominal pain, nausea, vomiting and inability to pass gas and stool, are also common.

Case: A 21-year-old male patient was admitted to our emergency clinic with the complaint of abdominal pain that had been going on for a week.It was learned that the patient who had nausea and vomiting did not have gas-fecal discharge for three days.He has no known chronic disease. He had an operation 10 years ago, the details of which are unknown.(caused by gastric polyps?) It was learned that her father and older sister had Peutz Jeghers Syndrome.The patient's vital signs were normal.There was widespread distension and tenderness in the abdominal examination and there was no defense or rebound.In laboratory tests, neutrophil-dominated leukocytosis and hypochromic anemia were present.On the rectal examination, the ampulla was empty In patient's abdominal CT, nested bowel loops were observed along a 5.5 cm segment in the distal jejunal loops.(İntussusception?) A nasogastrictube was inserted, oral intake was stopped, intravenous hydration was started.The patient wasadmitted to the general surgery service with the diagnosis of intussusception. In the secondabdominal CT, there were multiple polyps in the jejunum and duodenum, some of which were gigantic.There was intussusception in a total of three regions.Segmentary jejunum resection was performed.Multiple polyps were seen in the entire stomach on endoscopy.Pathology tests revealed one hamartomatous,two infarcted and transmural polyps in the small intestine.Considering the family history, clinical evaluation for Peutz Jeghers Syndrome was recommended.Genetic tests were planned.

Conclusions: Intestinal intussusception is rare in adults,and 70-90% of them develop secondary to an underlying pathological anomaly.Hereditary intestinal polyposis and PJS should also be considered. Intussusception is a serious complication, and delay in diagnosis and treatment can cause perforation that threatens the patient's life.Intussusception should be considered in patients presenting to the emergency department with abdominal pain of unknown etiology.It should be noted that CT will provide high accuracy in diagnosis.

Keywords: intussusception, adult, peutz jeghers sydrome

S- 214

Investigating Kampala Trauma Scores of Fall From Height Patients

Tamay Demirkol[1], Yilmaz Ersoz[1], Bahadir Taslidere[1]

[1]Bezmialem Vakıf University

Background and aim: Fall from a height is one of the most common reasons for admission to the emergency department, thus it is a very important public health problem for Turkey. Kampala trauma score is used mostly in low-middle income countries and resource-limited settings. It requires minimal data collection, so it is easy to calculate. The aims of this study are; to analyze the demographic data of FFH patients, to investigate characteristics of fatalities and predictors of mortality in FFH patients and to test the effectiveness and applicability of 2 trauma scores (Kampala & TRISS) for specifically FFH patients.

Methods: This research was carried out retrospectively from the data of 81 patients who applied to the emergency room between January 01, 2018 and December 31, 2019. Kampala Trauma Score and Trauma-Related Injury Severity Score were calculated. Kampala score is calculated by the patient's age, systolic blood pressure, respiratory rate, neurological status, and number of serious injuries. It is expected that Kampala score (KTS) can be used effectively against Trauma-Related Injury Severity Score (TRISS). If this study results as expected, it will be recommended to be used to predict prognosis of FFH patiens in emergency departments.

Results: 81 patients including 26 (32.1%) females and 55 (67.9%) males with a mean age of 28 (range, 1 to 88) are included in this study. 38 (46.9%) patients fell from 1 meter (m) and less, 40 (49.4%) patients fell from 1.1m-4m , 2 (2.5%) patients fell from 4.1m-9m, and 1 (1.25%) patient fell from height greater than 9 meter. Almost 75% of falls occurred in afternoon hours. 91.4% of the falls were accidental, 7.4% of the falls were work-related and 1.2% of the falls were related to suicide. 73 (90.4%) patients sustained only one system injury, and 8 (9.6%) patients had multisystem injury. Major injuries included head trauma (32%), musculoskeletal trauma (38.1%), thorax trauma (18.4%), abdominopelvic trauma (12.2%), and spinal trauma (9.8%).

Conclusions: The Kampala score (CTS) is as effective as the Trauma-Related Injury Severity Score (TRISS) in cases of falls from height. It can be easily calculated and used effectively.

Keywords: Kampala, Trauma, TRISS

S-2619

POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME (PRES)

Ayşen Zeybek[1], Mehmet Oğuzhan Ay[1], Enad Kenan[1], Murat Ersal[2], Melih Yüksel[1], Halil Kaya[1], Umut Ocak[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye
[2]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Anesthesiology and Reanimation, Bursa, Türkiye

Background and aim: Posterior reversible encephalopathy syndrome (PRES) is an clinical radiological situation characterized by headache, altered mental status, seizures, visual disturbances, and focal neurological signs. The most common etiologies of PRES are hypertension and renal failure, and the most frequent pathophysiology is hyperperfusion. PRES is generally symmetrical, often in the occipital and parietal lobes, and is typically characterized by vasogenic edema in the subcortical white matter (1). In this report, a case with PRES is reported.

Case: A 73-year-old male patient was brought to the emergency department by his relatives with the complaints of blurred consciousness and tremor in the right arm. He had known lung cancer, hypertension and chronic renal failure diseases. The patient had a Glasgow Coma Scale of 13 and had a focal seizure in the right arm. His blood pressure was 220/120 mmHg, SPO2: 95%, pulse: 77/minute, blood glucose 162 mg/dl, fever: 36 degrees Celsius. The patient's focal seizure stopped after intravenous administration of 5 mg of diazepam. Antihypertensive treatment was started and central imaging was performed for differential diagnosis. There was no pathological image in the patient's brain computed tomography. There were bilateral hyperintense areas in the parietooccipital areas on diffusion-weighted magnetic resonance imaging. ADC sections did not have hypointense counterparts. The patient was found to have posterior reversible encephalopathy syndrome and was admitted to the Neurology service.

Conclusions: Early recognition of PRES is important for timely institution of therapy, which typically consists of gradual blood pressure control and withdrawal of potentially offending agents. Although reversible by definition, secondary complications, such as status epilepticus (SE), intracranial hemorrhage, and massive ischemic infarction, can cause substantial morbidity and mortality (2). With this case report, it is aimed to keep in mind that patients who come to the emergency department with confusion and seizures may be a rare PRES.

Notes (Optional): References1. Yigit M, Yigit E, Turkdogan KA. Posterior Reversible Encephalopathy Syndrome in the Emergency Service. Niger J Clin Pract 2018;21:248-50.2. Fugate JE, Claassen DO, Cloft HJ, Kallmes DF, Kozak OS, Rabinstein AA, et al. Posterior reversible encephalopathy syndrome: Associated clinical and radiologic findings. Mayo Clin Proc 2010;85:427-32.

Keywords: PRES, Posterior reversible encephalopathy syndrome, altered mental status, seizure

S- 200

A Case from Northern Syria: Suicidal Throat Incision

Murat Tepe[1], Bahadır Karaca[2]

[1]Kilis State Hospital, Department of Emergency Medicine
[2]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine

Background and aim: Suicide is one of the leading causes of death in psychiatric patients and the young age group. (1) Suicide attempt by throat incision is generally very rare. (2)

Case: A 32-year-old male patient was taken to an external center by his family due to a throat cut due to a suicide attempt. The patient was referred to our hospital because he needed an otolaryngologist. In the first evaluation in the emergency department, he was conscious and cooperative. There was an incision of approximately 15 cm in length with regular borders, without hesitation incisions in the anterior part of the neck. He had no other pathology. His blood pressure was 110/74 mmHg, Spo2: 97%, heart rate was 94, and fever was 36.4 C. The patient was intubated and operated under general anesthesia. During the exploration in the operating room, there were cuts in the platysma muscle, 3 superficial venous injuries and a non-full incision in the anterior tracheal wall. The patient, who was followed up in the intensive care unit for 1 day post-op, was discharged on the 5th day with the recommendation of psychiatry control.

Conclusions: While poisoning and hanging are common among suicide forms, throat cuts are very rare. (3) Since the anterior neck wall contains vital structures, throat cuts carry a serious life-threatening risk. (4) Our patient was stable at the time of admission to the emergency department, but due to the shape of his injury, detailed examination and repair were performed with surgical exploration. The most frequently reported psychiatric disorders in suicide attempts are mood disorders and major depression. (5) Our patient did not have a diagnosed psychiatric disease in his history and did not want to give a detailed anamnesis. As a result; Suicidal throat cuts are rare but serious, life-threatening conditions.

Notes (Optional): The case with a deep neck incision from the north of Syria will be presented.

Keywords: Syria, Throat Incision, Suicide, Suicidal trauma

S- 046

THE RELATIONSHIP OF HEMOGLOBIN (Hb) - RED BLOOD CELL DISTRIBUTION WIDTH (RDW) RATIO (HRR) WITH PROGNOSIS IN PATIENTS WITH SERIOUS PNEUMONIA IN THE EMERGENCY DEPARTMENT

Birsen Ertekin[1], Tarık Acar[1], Derviş Kurnaz[2]

[1]1- Department of Emergency, University of Health Sciences, Beyhekim Training and Research Hospital, Konya, Turkey
[2]2- Department of Emergency, Necmettin Erbakan University Meram Faculty of Medicine, Konya Turkey

Background and aim: Anemia is a common finding in hospitalized community-acquired pneumonia (CAP) patients and is closely associated with mortality and prognosis. It has also been stated that high Red Blood Cell Distribution Width (RDW) value may predict short-term adverse outcomes in these patients. Therefore, in our study, the relationship between the ratio of Hemoglobin (Hb) to RDW (HRR) and prognosis was investigated in patients with severe pneumonia who applied to the emergency department (ED).

Methods: A total of 121 patients diagnosed with severe CAP in the ED and hospitalized in the intensive care unit (ICU) were analyzed retrospectively. HRR levels were calculated using Hb and RDW values obtained from routine whole blood analysis at the time of admission to the ED. Hb, RDW and HRR levels were compared between patient groups who died, who were survived, who needed and did not need a mechanical ventilator (MV), with and without vasopressor support, with a hospital stay of ≤10 days and >10 days. In addition, ROC analysis was performed to determine the value of these three parameters in predicting mortality, and their sensitivity and specificity were calculated.

Results: HRR levels were higher in surviving patients who did not receive MV and vasopressor support, compared with those who died and received MV and vasopressor support (respectively, 0,87±0,17, 0,87±0,20, 0,83±0,19, 0,62±0,14, 0,73±0,18, 0,61±0,15, for all p<0,001).However, there was no significant difference between HRR and hospital stay (p=0.64). While the HRR cut-off value in predicting of mortality was 0.719, the sensitivity was % 84.8 and the specificity was % 83.1 (AUC:0,865, p<0,001).

Conclusions: HRR levels calculated at the time of admission to the ED is a predictor associated with prognosis and mortality in patients with severe pneumonia.

Keywords: Hemoglobin, Red cell distribution width, emergency department, mortality, prognosis

S- 111

Pseudo-Ekg Finding in Subacute Ischemic Cerebrovascular Diseases

Hüseyin Gürbüz[4], Muhammet Emin Doğan[6], Mustafa Çetin[7]

[1]Dr.Ersin Arslan Eğitim Araştırma Hastanesi Acil Tıp Kliniği
[2]Gaziantep Üniversitesi Şahinbey Araştırma ve Uygulama Hastanesi, Acil Tıp Kliniği
[3]Hitit Üniversitesi Erol Olçok Eğitim ve Araştırma Hastanesi, Dahiliye Kliniği
[4]Dr.Ersin Arslan Training and Research Hospital Emergency Medicine Department
[5]Gaziantep University Şahinbey Research and Application Hospital, Emergency Medicine Department
[6]Gaziantep University Sahinbey Research and Practice Hospital, Emergency Medicine Department
[7]Hitit University Erol Olcok Training and Research Hospital, Internal Medicine Department

Arka plan ve amaç: Cerebrovascular diseases (CVD) are defined as neurological deficit developed based on ischemic or hemorrhagic reasons and is a heterogeneous disease in terms of its consequences. About 85% occur due to ischemic reasons and 15% occur due to hemorrhagic reasons (1).

Vaka: 71-year-old male patient consulted us with the complaint of dizziness and nausea that have been going on for approximately 10 hours. His history includes diabetes and past case of hemorrhagic CVD. The following were measured: T.A 150/80 mm/Hg Pulse: 75/min, Spo2: 97%, Fever: 36.8 C. His general condition was good, consciousness was open, and he was oriented and cooperative. During physical examination, the strength in right extremities were measured as 4/5 and tremor was found in right arm (old CVD sequel). No pathology was encountered during other system examinations. In EKG, torsades de pointes / ventricular fibrillation / atrial flutter were identified. (Figure 1) Computerized tomography image did not yield acute pathology, and the patient, who had diffusion restriction in left posterior parietal region under cranial diffusion MRI, was admitted with subacute ischemic CVD diagnosis.

Kararlar: Approximately 16 million people have a stroke every year. Strokes are the second biggest cause of death in population over the age of 60. In our country, deaths due to strokes come second after the cardiovascular diseases (2). While age, sex, race and genetic factors can be counted among the unchangeable risk factors of stroke, changeable risk factors include many factors such as hyperlipidemia, hypertension, diabetes, atrial arrhythmia, and smoking (3). In our case, the risk factors were old age, male sex, and pseudo-EKG rhythms secondary to rhythmic tremor. While the clinical case in stroke patients can reveal itself prominently as weakness in extremities, facial paralysis, speaking disorder, it can also reveal itself through weak symptoms such as asthenia and dizziness (4). In our case, the clinical case manifested itself prominently.

Notlar (Opsiyonel): References:1)Writing Group M, Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, et al. Heart Disease and Stroke Statistics-2016 Update: A Report From the American Heart Association. Circulation 2016; 133: e38-602)Şahin, A. D., Yusuf, Ü. S. T. Ü., & Derya, I. Ş. I. K. (2015). Serebrovasküler hastalıklarda önlenebilen risk faktörlerinin yönetimi. Ankara medical journal, 15(2).3)Boehme, A. K., Esenwa, C., & Elkind, M. S. (2017). Stroke risk factors, genetics, and prevention. Circulation research, 120(3), 472-495.4)Go S, (2020) Stroke Syndromes. Judith E. Tintinalli (Ed.) Tintinalli's Emergency Medicine A Comprehensive Study Guide (9th ed., pp, 1119-1136). New York: Mcgraw-Hill Education.

Anahtar Kelimeler: tremor, torsades de poes, atrial flutter, ECG, Cerebrovascular disease

S- 096

ERİŞKİN ACİL SERVİSTE ÇALIŞAN SAĞLIK ÇALIŞANLARININ İŞE BAĞLI STRES DÜZEYLERİNİN SİGARA BIRAKMA DAVRANIŞI ÜZERİNE ETKİSİ

Demet DUMAN[2], NURSENA ALAGÖZ[2], İNAN CAN GÜNDÜZ[2], VEYSEL SILTAĞ[2]

[2]Başakşehir Çam ve Sakura Şehir Hastanesi, İstanbul
[2]Marmaraereğlisi İlçe Devlet Hastanesi, Tekirdağ

Background and aim: Smoking, which is one of the first causes of preventable mortality and morbidity all over the world, is a serious public health problem that causes many health problems at all stages of life. Stress is also a psychological factor caused by smoking. People resort to cigarettes in order to reduce their stress and adapt to the environment and calm down. In this study, it was aimed to examine the relationship between smoking cessation behaviors and work stress of healthcare professionals working in the adult emergency department.

Case: The descriptive-cross-sectional study was collected from 135 health personnel who smoked in the adult emergency department of a city hospital between June 2022 and August 2022 by online questionnaire method. A 15-item Introductory Information Form, the Smoking Cessation Behavior Health Belief Model Scale, and the A Work Stress Scale-20, prepared by the researchers via Google Forms, were used to collect the data. Frequency and percentage analyzes were used to determine the descriptive characteristics of the employees participating in the research, and average and standard deviation statistics were used in the analysis of the scale.The analysis of the data was evaluated using the SPSS 22.0 statistical program. According to age, 67 (49.6%) of the health workers participating in the research were 25-30, 75 (55.6%) were female, 89 (65.9%) according to willingness to work in the clinic yes, 56 (41.5%) according to the number of cigarettes smoked daily, 20 or more, 108 (80%) according to the situation of finding the profession stressful yes, according to the reason for smoking, 70 (51.9%) stated that it was to alleviate their problems. The regression analysis performed to determine the cause-effect relationship between job stress and perceived benefit was found to be significant. Employees' job stress scores differ significantly according to their income status.

Conclusions: In this study conducted with health workers, it was determined that female health workers had a higher rate of smoking than male health workers. No significant relationship was found between smoking cessation behavior and job stress.

Notes (Optional): The results obtained may contribute to smoking addiction studies.

Keywords: Smoking, Stress, Health Personnel

S- 045

A Purple Flag in the Emergency Department: A Case Series

Yalçın Gölcük[1], Mehmet Gökhan Kaya[1]

[1]Muğla Sıtkı Koçman University, Faculty of Medicine, Department of Emergency Medicine

Background and aim: Purple urine bag syndrome (PUBS) is a rare but common case especially in elderly patients with risk factors for constipation, alkaline urine, long-term use of urinary catheter, urinary tract infection (UTI) and, end stage renal disease. This condition is idiopathic but is thought to be due to the breakdown of indole, a by-product of dietary tryptophan metabolism, to coloured pigments indigo and indirubin by urinary bacteria, which reacts with the catheter and the bag to impart a purple colour. This study aims to report of five cases with PUBS and to investigate its predisposing factors, clinical presentation, management, and outcomes.

Methods: This retrospective, observational, and cross-sectional case series study was conducted at the ED of university-affiliated training and research hospital in Muğla, Turkey between April 1, 2020 and April 1, 2022.

Results: During the research period, five patients [mean age, 83.6±4.8 years (range, 76-89 years); 80% woman] diagnosed to PUBS. Table 1 shows the baseline characteristics and labaratory results. There were a history of dementia and bedridden situation in three patients. Constipation (100%) and long-term use of urinary catheter (100%) were the main predisposing factors. All patients had evidence of UTI and fever was no¬ticed (mean, 37.9 ± 0.9 celcius). In 3 patients, the PUBS resulted to septic shock and death. The responsible mi-crobe was identified in 3 urine culture (Escherichia Coli, Proteus Mirabilis, and Klebsiella Pneumoniae).

Conclusions: Although it is infrequently encountered, PUBS should be included in the differen¬tial diagnosis for chronically-catheterized and bedridden patients who present to ED with purple urine discoloration. The awareness may help in correct diagnosis and treatment.

Keywords: Purple urine bag syndrome, chronic indwelling foley catheter, urinary tract infection, emergency department

S- 076

SPONTANEUS GASTRIC PERFORATION IN A 19 YEARS OLD GIRL, A CASE REPORT

Tuba Betül ÜMİT[1], Ahmet TOPCU[2]

[1]Tokat Puplic Hospital Emergency Department, Turkey
[2]Tokat Puplic Hospital General Surgery Department, Turkey

Background and aim: Peptic ulcer disease is the most common cause of gastric perforations; however, they can also be caused by neoplasms, trauma, bowel obstruction, inflammatory changes, infections, interventional procedures, or foreign bodies. Endoscopies of the upper gastrointestinal system are the most common cause of iatrogenic perforations.But spontaneus gastric perforation is very rare in adult without comorbidity. With this case report,we aimed to raise awareness of spontaneous gastic perforation.

Case: A 19-year-old female patient admitted to another secondary care emergency department with nausea, vomiting and abdominal pain that had begun two hours prior. Blood tests were; WBC 12,000/µL, Hb 12.1 g/dl CRP 3 mg/L and other results were within the normal range. X-ray imaging was not requested. She was discharged after relief with symptomatic treatment. CT was performed to the patient who applied again on the same day as his complaints increased. Meanwhile, cardiopulmonary resuscitation was applied to the patient who had cardiac arrest. The patient who was diagnosed with gastric perforation was referred to our hospital intubated.When the patient was brought to our emergency department by 112 ambulance, it was learned that she had no known disease history,did not use any analgesic drugs, and the patient applied to the emergency service in the morning due to vomiting and abdominal pain. On physical examination, the abdomen had massive abdominal distention. The patient was taken to emergency operation room by the general surgeon. During the operation, it was observed that the abdomen was filled with gas and stomach contents, and a 5 cm laceration was observed on the anterior face of the stomach at the greater curvature. Approximately 12 hours after the operation,the patient had cardiopulmonary arrest and no response to CPR.

Conclusions: The classic sub-diaphragmatic air on chest x-ray may be absent and computed tomography scan is a more sensitive investigation in the stable patient.However, there was no X-ray image in this patient's first application. Treatment of spontaneous gastric perforation is surgical which carries significant mortality and morbidity. Despite the surgical operation, we lost our patient, who had no known disease history,18 hours after the first emergency admission and 12 hours after the operation.

Keywords: Spontaneus gastric perforation, Peptic ulcer, Perforation

S- 134

The effect of out-of-hours admission on mortality in patients who underwent thrombectomy due to ischemic stroke

Kadir Küçükceran[1], Mustafa Kürşat Ayrancı[1], Abdullah Sadık Girişgin[1], Sedat Koçak[1], Zerrin Defne Dündar[1], Osman Koç[2]

[1]Emergency Department, Necmettin Erbakan University, Meram School of Medicine, KONYA
[2]Neuroradiology, Necmettin Erbakan University, Meram School of Medicine, KONYA

Background and aim: It is important to investigate the factors that may delay the diagnosis and treatment process of ischemic stroke. The aim of this study was to investigate whether in-hospital mortality increased in patients who presented to the emergency department out of hours and underwent thrombectomy.

Methods: A total of 59 patients who applied to the emergency department between January 1, 2018 and November 1, 2021 and underwent thrombectomy due to ischemic stroke were included in the study. Patient age, gender, thrombectomy success (successful recanalization), in-hospital mortality status, intracranial hemorrhage status after thrombectomy, and out-of-hours admission status were recorded and compared according to out-of-hours admission status.

Results: Twenty-seven (45.8%) patients were male, and the median age was 74 (61–81) years. Forty-two (71.2%) patients applied to the emergency department out of hours. In-hospital mortality occurred in 27 (45.8%) patients. There was no statistically significant difference in out-of-hours admission status between the non-survivor group and the survivor group (non-survivor: 24 [75%], survivor: 18 [66.7%], p=0.481). Nor was a statistically significant difference found in the intracranial hemorrhage complication rate of the patients admitted out of hours compared to the patients admitted during working hours (out of hours: 17 [40.5%]; during working hours: 6 [35.3%], p=0.712).

Conclusions: No statistically significant difference was found in the rate of in-hospital mortality and intracranial bleeding complications in patients who underwent thrombectomy out of working hours compared to during working hours.

Keywords: Out of Hours Medical Care, Thrombectomy, Embolism, Emergency Care, In-Hospital Mortality

S- 175

HALLUCINOGENIC MUSHROOM INTOXICATIONS

Onur ZENGİN[1], Orhan DELİCE[1], Nurda ÖZTÜRK GÜNDOĞDU[1]

[1]Erzurum Bölge Eğitim ve Araştırma Hastanesi

Background and aim: Mushrooms containing psilocybin have hallucinogenic effects on people when consumed. By effecting the central nevous system, patients can have altered mental status which may shows symptoms in a range between confussion to coma. In our cases, we will talk about two patients brought to emergecy depertment because of altered mental status with the history of consumption of mushroom, who are intubated and followed up by us in our emergency intensive care unit.

Case: The first case is a 64-year-old male patient, who have no medical history, was brought to emergecy depermant with the complaint of having altered mental status. The patient had a history of consumption of mushroom within the same day and had a GCS:8. After the first evaluation of the patient, he was intubated and admitted to our emergency intensive care unit for close follow up. In the second case, a 36-year- old male patient with no medical history was dispatdhed from Ardahan State Hospital as intubated. The patient also had a history of concumption of mushroom wthin the same day. After first evalution, the patient was admitted to our emergecy intensive care unit. The cranial emagings of both the patients were normal. Both of the patients had no history of use of any medications. All physical examination apart from neurological examinations were normal and complete blood count, liver function tests, kidney function tests, coagulation parameters, kardiac markers were in normal range for both the patients. After one day of follow uf of patients as intubated, they are extubated on the next day. The patienst were dicharged as there was no pathology in clinical and laboratory parameters mentioned above during follow up process.

Conclusions: Mushrooms can affect central nervous system without causing any change in complete blood count, liver function tests, kidney function tests, coagulation parameters, kardiac markers when consumed. In the patients brought to emergecy departmet with the complaint of altedred mental status, hallusinogenic mushroom intoxication must be one of the differential diagnossis althought all laboratory parameters and clinical findings were normal which are expected to be pathologic in mushroom intoxications.

Keywords: hallusinogenic mushrooms, mushroom intoxications, psilocybin

S- 204

Bone marrow edema in the knee after minor trauma: a case report

Gül Şahika Gökdemir[1], Mehmet Tahir Gökdemir[2]

[1]Diyarbakir Children's Hospital, Physiology, Diyarbakir
[2]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin

Background and aim: Bone marrow edema (BME) is characterized by pain and increased interstitial fluid in the bone marrow, with or without obvious cause [1]. It may be present in cases that present as a self-limiting lesion that resolves within months without specifying any underlying cause and no sequela can be detected. BME can often be involved in the hips, knees, ankles, and feet.The purpose of presenting this case is to raise awareness that persistent pain after minor trauma may be caused by BME.

Case: A 52-year-old male patient admitted to the emergency department with the complaint of left knee pain. The patient initially had moderate pain when his left knee hit the edge of the wooden table while getting up from the dinner table. He did not care much about this pain, followed the periods of decrease and increase in the severity of pain. As this network, which lasted for about 3 months, got worse, the patient admitted to the emergency depatment(ED). In the clinical examination, there was no redness and swelling on inspection, but there was pain around the medial condyle of the left knee on palpation. The patient had a history of smoking. In addition, he did not have any chronic diseases. T2 magnetic resonance imaging (MRI) revealed diffuse BME in the adjacent trabecular bone in the medial femoral condyle (MFC) and edema in the medial deep surrounding tissues. Treatment as follows: 1. Rest, 2. controlled weight therapy continued under the guidance of a physiotherapy, 3. acetaminophen 500 mg three times daily for pain control, 4. transcutaneous electrical nerve stimulation, 5. hip abductors and a physical rehabilitation program consisting of external rotators, quadriceps muscle, and harstring muscle strengthening; and 6. Bisphosphonate therapy: Boniva 150 mg 1 tablet daily.

Conclusions: In conclusion, metabolic osteoporotic factors, especially trauma, may play a role in the formation of BME. Although there are limited number of reviv and case report studies on BME in the literature, there are not enough comprehensive studies. We hope that our case will contribute to the literature in this context.

Keywords: Bone marrow edema, minor trauma, knee

S- 093

ORGAN INVOLVEMENT AND COMPLICATIONS OF SYSTEMIC LUPUS ERYTHEMATOSUS IN THE EMERGENCY DEPARTMENT: A CASE REPORT

Osman Sönmez[1], Eda Yelkenci[1]

[1]Başakşehir Çam ve Sakura Şehir Hastanesi

Background and aim: Systemic rheumatological diseases are a group of diseases that can progress with involvement in all organ systems and cause many complications. The clinical, pharmacological and organ pathologies of patients with rheumatological disease in the emergency department are quite complex compared to other patient groups. Herein, a case of a patient with some organ involvement and related complications of systemic lupus erythematosus is presented.

Case: A 19-year-old female patient was admitted to our emergency department with oral ulser for two weeks and a rash on the face and body for one day. The anamnesis of the patient, who was a foreign national, could not be taken clearly due to the language barrier. She was examined with the suspicion of rheumatological disease in her childhood, and it was learned that juvenile idiopathic arthritis was considered, but she was not diagnosed. In the physical examination of the patient, pink rash with preserved nasolabial skin, maculopapular rash on the neck, chest and back, and oral ulser were observed. Considering SLE due to rheumatological disease history and typical rash, she was examined for possible organ involvement and complications. In the examinations of the patient; elevation of creatinine, prolonged aPTT, elevation of amylase, lipase and findings in favor of pancreatitis in abdominal tomography, and bilateral pleural effusion and infiltration in thorax tomography were observed. Renal and lung involvement due to SLE was considered. In addition, the patient with elevated transaminases, pancytopenia, and elevated lactate dehydrogenase was admitted to the intensive care unit considering possible complications due to SLE. After the examinations in the intensive care unit, she was diagnosed with SLE. In addition, macrophage activation syndrome due to SLE was considered and treated.

Conclusions: Complications of rheumatological diseases can sometimes occur as emergencies and can result in serious morbidity and mortality if these complications are not recognized early and treated appropriately. In addition, considering this group of diseases in the differential diagnosis of patients without a diagnosis of rheumatological disease will reduce morbidity and mortality with early diagnosis and treatment. It would be useful to keep rheumatological diseases in mind while evaluating patients in the emergency department.

Keywords: systemic lupus erythematosus, macrophage activation syndrome, rheumatological diseases

S- 173

Are apple seeds poisonous?

Nazire Belgin Akıllı[1], Ahmet Ergun[1], Beyza Duran[1], Ramazan Köylü[1]

[1]Konya City Hospital

Background and aim: Amygdalin is one of the most common cyanogenic glycosides in nature. It is found in the seeds and seeds of plants such as apricot, almond, cherry, apple, plum, pear and peach. When amygdalin is taken orally, it is converted to cyanide by the beta glucuronidase enzyme present in the small intestine and thus causes cyanide poisoning. Here, a case who took the apple seeds for suicide will be discussed.

Case: A 25-year-old male patient learned from the internet that apple seeds could cause death by causing cyanide poisoning. He applied to our clinic by his brother, who said that he ate 200 apple seeds. On physical examination, the patient was conscious, GCS: 15, fever 36.6C, BP: 100/60mmHg, pulse 50/min. Hemogram, biochemistry, blood gas and lactate values were normal at the time of admission. Atropine and fluid therapy were administered because of decreased heart rate and arterial blood pressure during follow-up. Despite the treatment, the patient was hypotensive and bradycardic, and 1 dose of Hydroxycobalamin 5 gr was administered. Since the low blood pressure continued on the first day of the patient's follow-up, 1 dose of Hydroxycobalamin 5 gr was administered again. After the patient was given 2 doses of hydrocycobalamin, his blood pressure,and pulse recovered. The patient, who was followed up in the intensive care unit for 4 days, was discharged with full recovery.

Conclusions: Apricot kernel poisoning has been reported most frequently from cyanogenic glycosides. Cyanide poisoning is extremely rare after eating apple seeds as a suicide method. Early diagnosis of the signs and symptoms of cyanide poisoning and antidote treatment can be life-saving. In addition, the fact that similar information can be easily shared among social media and internet users guides patients with suicidal ideation. Necessary measures should be taken with a multidisciplinary approach and inspections should be increased.

Keywords: Amygdalin, Apple seeds, poisoning, cyanide

S- 126

A PULMONARY THROMBOEMBOLISM CASE

Hüseyin Ergenç[1], Özgür Söğüt[1], Özlem Canan Özbaltan[1]

[1]Haseki Eğitim ve Araştırma Hastanesi

Background and aim: Pulmonary embolism is a clinical picture, usually associated with deep venous thromboembolism (DVT) that develops as a result of occlusion of the pulmonary artery or its branches. The most common complaints are dyspnea, chest pain, hemoptysis and palpitations. The most frequent ECG finding is sinus tachycardia. Anticoagulant, thrombolytic and surgical embolectomy are used in the treatment.

Case: 38-year-old female patient applied to the emergency department with the complaint of feeling unwell. She had no known history of chronic disease. At first glance, her general condition was good, he was conscious and oriented. In addition, she had normal blood pressure (110/70 mmHg), high pulse rate (125/min), high respiratory rate (20/dk), normal saturation (97) in room air and normal temperature (36,4). Sinus tachycardia was detected on ECG.Respiratory system examination was unremarkable except tachypnea.In lower extremities, there was no difference in diameter and Homans sign was negative. In the first blood tests , troponin elevation (48 ng/L) and respiratory acidosis (ph:7.29 co2:50 lac:3) were found. In the control blood gas, the pH was 7.21 Hco3:16 lac:6. Due to the increase in respiratory distress, we performed CT angiography with the suspicion of pulmonary embolism. CT angiography showed massive embolism extending from both main pulmonary arteries to the lobar branches. After CT scan, CPR was started in the patient who developed cardiopulmonary arrest. Until the thrombolytic treatment was prepared, no response could be obtained for 15 minutes of CPR. After 50 mg IV bolus and 50 mg IV infusion of alteplase, spontaneous circulation was achieved in the patient at the 70th minute of CPR. After 1 week of hospitalization in the intensive care unit and 2 days in the coronary intensive care unit, the patient was discharged without any sequelae.

Conclusions: Patients presenting with sinüs tachycardia without predisposing factors such as fever or anemia should be alert for pulmonary embolism. Serial blood gas and vital sign monitoring are also important in such patients. In the case of cardiopulmonary arrest in patients diagnosed with pulmonary embolism or at high risk for pulmonary embolism, thrombolytic therapy should be started as soon as possible with CPR.

Keywords: Pulmonary embolism, thrombolytic

S- 073

Perforated Duodenal Diverticulitis. A Case Report

Yavuz Yılmaz[1], Banu Arslan[1]

[1]Sağlık Bakanlığı Çam Ve Sakura Şehir Hastanesi Acil TIP

Background and aim: Although duedenal diverticulitis is a common gastrointestinal system (GIS) pathology, complicated duedenal diverticulitis and diverticulum closed perforation are relatively rare and can lead to a clinical picture that can be fatal and intra-abdominal abscess, sepsis, septic shock if left untreated.

Case: The case is a 30-year-old male patient. There is a complaint of abdominal pain that has been going on for 10 days and is increasing. The patient was admitted to 3 different hospital emergency departments in a 10-day period. When the patient's pain did not go away and gradually increased, he was admitted to the emergency department of our hospital. In patient complaints, nausea, vomiting, decrease in gas and stool removal and high fever are described with abdominal pain. His vital signs reveal a blood pressure of 103/75 mmHg, heart rate 89 beats/min , body temperature, 37.8° C, respiratory rate 18 beats/min. Blood test results showed WBC 12.01 10^3/µL, CRP 5 mg/l. procalcitonin (PCT) level 0.5 ng/mLFigures 1-2; Contrast abdominal tomography; Increased wall thickness in gastric antrum-duodenum proximal and heterogeneity in surrounding fatty tissues. Diverticulitis with air density within the duodenal diverticulum. Perforated duedenal diverticulitis. Figüre 1 figure 2

Conclusions: In the U.S., about 200,000 patients a year are hospitalized for diverticulitis, but the majority of them are not compassionate and self-limiting. Approximately 5-10% of patients with diverticulitis present with bleeding, open or closed perforation and abscess. Delay in the treatment of these patients may be a major cause of morbidity and mortality. Surgical or conservative treatment can be applied in duedenal diverticulitis perforations. This patient of ours was discharged with healing after a 7-day follow-up period with conservative treatment. Recognition and treatment of these patients at the right time is important to prevent sepsis, septic shock and even death.

Keywords: Duedenal Diverticulitis, Perforation, Diverticulitis Abcess

S- 115

COCAINE USE WITH UNSTABLE ANGINA

Halil İbrahim Atalay[1], Mustafa Çetin[2]

[1]Kirsehir Training and Research Hospital, Department of Emergency Medicine
[2]Hitit University Erol Olçok Training and Research Hospital, Department of Internal Medicine

Background and aim: Cocaine is extracted from coca plant leaves, known as strong sympathomimetic and commonly used drug abuse. Cocaine stimulates central nerveous and cardiovascular system, could cause a number of complaints. In this case report we want to present unstable angina after cocaine use.

Case: 33 years old male patient admitted to emergency department with chest pain, dyspnea and ajitation. The patient has no prior illnesses including coronary artery disease and had confessed to use of cocain. Vital signs were; pulse 107 beats/per minute, respiration rate 25/per minute, blood pressure and oxygen saturation were normal. Patient was diaphoretic and anxietic. Pyhsical examination were normal. Electrocardiogram(ECG) findings showed tachicardia, infero-lateral st segment depression, anterior hyperacute t wave findings. Patient's blood samples were obtained for complete blood count, liver and renal functions, electrolites and troponin level. Diazepam 5 mg administered from intravenous access. 30 seconds after diazepam; sweating, ajijtation and tachicardia resolved. Control ECG was normal sinus rhythm and has no st segment changing. Patients first and second laboratory results icluding troponin levels were normal. Cardiology consultation was performed and Patient was admitted to cardiology clinic for further evaluation of coronary artery angiography. Coronary arteries were found normal and it's thought that the ECG findings related to cocain use. Patient discharded from hospital with a healty condition two days after angiography.

Conclusions: Cocaine toxicity is member of stimulant toxicity family like phencyclidine and amphetamine. Cocaine inhibits reuptake of noradrenalin ve blocks sodium ion channels. It is known as a party drug, stimulates whole nervous system and could cause agitation, hypertension, tachycardia, hyperthermia, dysrhythmias, ischaemia, seizures, dissections, intracerebral heamorrhage and cerebral oedema. The primary treatment is benzodiazepins. Disrhythmias should be treated with sodium bicarbonate. If ventricular tachicardia is refractory lidocain should be given. Supraventricular tachicardia treatment should contain benzodiazepins, verapamil, adenosin and if patient is unstable: cardioversion. Beta blockers are contraindicated because of unmet alpha blockage. Our patient had adminestered benzodiazepin and all the symptoms were revealed. At the end of treatment there was no cardiologic and neurologic affection and sequela.

Keywords: Cocaine, unstable angina pecrotis, ECG, emergency department

S- 203

Unexpected Atlas Fracture Resulting from Isolated Minor Head Injury!

Tuncay KUS[1], Umut OCAK[1], Halil KAYA[1], Mehmet Oguzhan AY[1], Melih YUKSEL[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa 16310, Türkiye

Background and aim: Head injury is a common occurrence and a serious health problem. Head injury patients with acute intracranial lesions on computerized tomography (CT) have a higher risk for cervical vertebral fractures in comparison to patients with a CT-negative head injury. In relation to that, for CT-negative head injury patients, especially patients with isolated minor head trauma, emergency physicians do not expect cervical fractures. To our knowledge, there have been few reports regarding the incidence of fracture of the cervical vertebrae in asymptomatic individuals presenting to the emergency department with minor head trauma. Based on this background, we aimed to discuss the unexpected cervical vertebrae fractures resulting from minor head trauma.

Case: A 52-year-old male patient was evaluated in our emergency department with a history of isolated minor head trauma. It was learned from the patient that the mid-scalp of his head hit the iron object at work. As a symptom, he only had pain in the same area of his head. The patient did not have any laceration, bleeding, or abrasion on his head. He did not have any complaints from his neck and there were no other pathological findings observed during the clinical examination. However, incidentally, cranial, and cervical CTs were ordered by mistake. Thus, interestingly, we detected a Jefferson type 1, Gehweiler type 1, and Levine type 2 atlas fracture according to the Jefferson, Gehweiler, and Levine Classifications. We recommended the cervical collar to our patient following the neurosurgery consultation, and before discharging him from ED, we recommended revisiting the neurosurgery clinic.

Conclusions: Conclusions: In conclusion, it was observed that cervical fracture could occur in patients with isolated head trauma, even if it was not complicated and had no physical findings. Therefore, it can be thought that cervical pathology should be excluded in all patients present to the emergency department with head trauma. The emergency physicians should have a vision of the fact that although the patient has a minor head injury, that situation may cause cervical fractures.

Keywords: cervical fracture, Gehweiler, Jefferson, Levine, minor head trauma

S- 094

A CASE OF SPLENIC AND RENAL INFARCTION PRESENTING ABDOMINAL PAIN

Tarık Akdemir[1], Şeyma Nur Mülayim[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Background and aim: Splenic infarct and renal infarct refers to parenchymal ischemia and tissue necrosis following vascular occlusion or tissue perfusion disturbance.They consist of abdominal or flank pain, left upper quadrant tenderness and fever that may be interpreted as an abdominal emergency. Laboratory abnormalities that support splenic infarction include leukocytosis, thrombocytosis, elevated levels of lactate dehydrogenase (LDH), and increased inflammatory markers.There are many factors responsible for the etiology of splenic and renal infarction. These include thromboembolic events causing obstruction in the splenic circulation (38%), infiltrative hematologic diseases(29%), splenic vascular diseases (6%), anatomical disorders (5%) and collagen tissue diseases.In hereditary thrombophilia, the risk of thrombosis increases in the presence of acquired risk factors and predisposing factors.Treatment of splenic and renal infarct is based primarily on the underlying causative disease state.Herein, is reported a case of the patient who presented with abdominal pain, and was found to have splenic and renal infarction.

Case: A 32-year-old man presented to the emergency department with complaints of left-upper quadrant abdominal pain,nausea and vomiting. There was no feature in his medical-background. His vital signs are stabil. The ECG was in sinus rhythm. On examination, there was left-upper quadrant and epigastric tenderness. Laboratory results are: WBC 19,12 10*3/πl, Neutrophil 16,17 10*3/πl, HGB 15,9 g/ dl, platelet 220000,LDH 224 U/L. A chest and abdominal CT was performed, peripheral hypodense splenic and renal lesions, highly suggestive of splenic and renal infarcts.The patient was consulted with the Department of internal medicine and was hospitalized for follow-up. The patient was investigated for cardiovascular causes, infective endocarditis, vasculitis and hematologic diseases. However, no pathology was detected in these tests.The thrombophilia panel of the patient revealed that he was heterozygous for factor 5 leiden. Since this condition predisposes to thrombophilia, the patient was discharged with anticoagulant therapy.

Conclusions: The association of renal and splenic infarction is a rare cause of abdominal pain. Physical examination and clinical suspicion are the physician's most powerful weapons to avoid missing rare diagnoses.

Keywords: splenic infarct, renal infarct, abdominal pain

S- 196

A hit by gunshot from nape that bounced off cervical vertebrae

Murside Yayli[1], Gulbahar Guler Orucoglu[1], Sevilay Biyikli[1], Mustafa Yasin Okten[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background and aim: In this case, we present an awkward routing gunshot injury richocheted from cervical vertebrae and moved on through the lung which should be life threatening

Case: A 17 years old male administered with a gunshot from the nape of the neck.When he was brought to the hospital he was awake and complained of nape pain. In neurologic examination, GCS was 15 and had no deficit except for paresis at the distal of the right elbow. In abdominal examination no pathological finding was present. In imaging, fractures were detected in the lamina of C4 and vertebral sulcus of C5, transverse processes in C6, C7. In addition, pneumothorax and hemothorax in the right lung was seen. Also a lead core was seen in the posterobasal supradiagraphmatic area of the right lung. Seen that the trajectory of the bullet deviated by collision with cervical vertebraes. No neurosurgical intervention was not considered necessary. A chest tube was inserted due to hemothorax and the patient was hospitalized in the general surgery ward.For neurosurgical evaluation by MR imagination, on the 4th day, thoracostomy and the removal of the lead core which was free in the supra diaphragmatic sinus was performed.

Conclusions: During the follow-up in the ward, the patient was stabil. 8 days after the thoracostomy, the chest tube was removed and the patient was discharged.

Notes (Optional): The patients that are hit by gunshot must be evaluated systemically. Also due to inpredictability of route of the lead, the imagings should include the surrounding body parts, not only the injury area.

Keywords: gunshot, hemothorax, bounced lead, vertebral fracture, nape injury

S- 057

Purple Urinary Bag Syndrome

Mazlum Kılıç[1]

[1]Fatih Sultan Mehmet Eğitim ve Araştırma Hastanesi

Background and aim: Purple Urinary Bag Syndrome (PUBS) is a rare syndrome which is the purple staining of the urine collection bag after urinary tract catheterization of patients with constipation and urinary tract infection.

Case: An 82-year-old male patient was presented with complaints of deterioration in general condition, fatigue and fever for 10 days and constipation for 2 days. He had been followed up for prostate cancer for 10 years and had not been operated. He had a urinary catheter inserted. There were previous hospital admissions with urinary tract complaints. Hypertension and diabetes mellitus were other comorbidities. His vital signs were body temperature: 37.2°C, BP: 142/83mmHg, HR: 82/min, and spO2: 93%, RR: 10/min. The prostate was palpable on rectal examination. Other system findings were normal.Blood tests were WBC: 11,700/mm3, Hgb: 10.9g/dl, CRP: 1.489mg/L, Creatinine: 0.8mg/dl, BUN: 30mg/dl . Other parameters were within normal limits.The urine coming from the bladder catheter had dyed the patient's urine collection bag purple. Urinalysis revealed: 33 erythrocytes and 207 leukocytes in urine. Urine culture and antibiogram were taken from the patient. 2 grams of ceftriaxone was administered intravenously.His abdominal imaging: "Cortical cysts were observed in the kidney. Prostate size has increased". No other features were found. He was transferred to infectious diseases department.

Conclusions: PUBS is a disease of people with chronic catheterized urinary tract infections, often in the elderly with constipation. During constipation, the tryptophan taken from the bacteria colonizing the intestine is converted to indole. Indole is sulfated in the liver and excreted in the urine as indoxysulphate. Bacteria in the bladder convert this indole sulfate to indoxy. The oxidation of indoxylin results in blue(indigo) and red(indirubin) colors. The purple color is formed from the chemical reaction between indigo and indirubin and the synthetic components of the urinary catheter bag containing polyvinyl chloride.For the development of PUBS; female gender, alkaline urine, constipation, being hospitalized, use of plastic (PVC) urinary catheters and some bacteria (Providencia spp., Escherichia coli, Proteus mirabilis and Klebsiella pneumoniae) are blamed.Recognizing PUBS is an important indicator for a quick and accurate diagnosis which emergency physicians should be aware of.

Keywords: Purple Urinary Bag Syndrome, urinary tract infections, urinary tract catheterization, emergency physicians

S- 097

The Effect Of Work-Related Stress Levels On Smoking Behavior Of Healthcare Professionals Working In Adult Emergency Services

Demet DUMAN[1], Nursena ALAGÖZ[1], İnan Can GÜNDÜZ[2], Veysel SILTAĞ[1]

[1]Başakşehir Çam ve Sakura Şehir Hastanesi, İstanbul
[2]Marmaraereğlisi İlçe Devlet Hastanesi, Tekirdağ

Background and aim: Smoking, which is one of the first causes of preventable mortality and morbidity all over the world, is a serious public health problem that causes many health problems at all stages of life. Stress is also a psychological factor caused by smoking. People resort to cigarettes in order to reduce their stress and adapt to the environment and calm down. In this study, it was aimed to examine the relationship between smoking cessation behaviors and work stress of healthcare professionals working in the adult emergency department.

Methods: The descriptive-cross-sectional study was collected from 135 health personnel who smoked in the adult emergency department of a city hospital between June 2022 and August 2022 by online questionnaire method. A 15-item Introductory Information Form, the Smoking Cessation Behavior Health Belief Model Scale, and the A Work Stress Scale-20, prepared by the researchers via Google Forms, were used to collect the data. Frequency and percentage analyzes were used to determine the descriptive characteristics of the employees participating in the research, and average and standard deviation statistics were used in the analysis of the scale. The analysis of the data was evaluated using the SPSS 22.0 statistical program.

Results: According to age, 67 (49.6%) of the health workers participating in the research were 25-30, 75 (55.6%) were female, 89 (65.9%) according to willingness to work in the clinic yes, 56 (41.5%) according to the number of cigarettes smoked daily, 20 or more, 108 (80%) according to the situation of finding the profession stressful yes, according to the reason for smoking, 70 (51.9%) stated that it was to alleviate their problems. The regression analysis performed to determine the cause-effect relationship between job stress and perceived benefit was found to be significant. Employees' job stress scores differ significantly according to their income status.

Conclusions: In this study conducted with health workers, it was determined that female health workers had a higher rate of smoking than male health workers. No significant relationship was found between smoking cessation behavior and job stress.

Keywords: Health Personnel, Smoking, Stress

S- 141

COVID ENCEPHALITIS IN A PREGNANT CASE

Gamze Çopuroğlu[1], Gül Şahika Gökdemir[2], Mehmet Tahir Gökdemir[3]

[1]Mardin Training and Research Hospital, Emergency Department, Mardin
[2]Diyarbakir Children's Hospital, Physiology, Diyarbakir
[3]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin

Background and aim: The main clinical manifestations of COVID 19 are fever, chills, dry cough and difficulty breathing. Autopsy studies have shown that in most cases of SARS, signs of cerebral edema and meningeal vasodilation can be detected. In this case report, we present a young pregnant patient who was brought to the emergency room with headache and occasional hallucination-like complaints and subsequently developed encephalitis and cerebral hemorrhage due to COVID 19.

Case: A 27-year-old pregnant patient was brought to the emergency department with complaints of headache and hallucinations.A week ago, she applied to the emergency department with complaints of headache, cough and fever. The patient's COVID 19 test was negative and the thorax CT was normal. The patient's TA was 115/75, NDS:88, fever was measured as 38°C, and she was discharged. One week later, the patient was admitted to the emergency service again due to epileptic attack and widespread muscle weakness. At the second admission, high fever and altered consciousness were present. On Thorax CT of the patient who had a positive COVID test, there were patchy ground glass density increases in the lower lobes of both lungs and in the posterior segment of the right lung upper lobe, an appearance compatible with viral pneumonia (Figure 1). In the brain MRI, there was a widespread multiple lesion area at the bilateral temporal lobe level, periventricular, coronaradiata and centrumsemiovale levels, containing the appearance of hypointense bleeding areas within the lesions located in the white matter and causing involvement in the corpus callosum (Figure 2). On the diffusion MRI of the patient, there were infarct areas secondary to perfusion disorder, sometimes close to the bleeding areas. After the preliminary preparation and the first treatment, the patient was delivered by cesarean section. Antiviral, antibiotherapy and anti epileptic therapy were started and the patient was taken to the physical therapy program and was discharged with moderate extremity sequelae.

Conclusions: SARS-CoV can induce polyneuropathy, encephalitis and aortic ischemic stroke. Our case shows that covid 19 disease may have a clinical presentation with a complication such as stroke. We think that this case report will contribute to the literature.

Keywords: COVID-19, Encephalitis, Pregnancy

S- 029

Evaluation of Interhospital Patient Transfers in Northwest of Syria

Burak Çelik[1], Bahadır Karaca[2]

[1]Kirsehir Training and Research Hospital, Department of Emergency Medicine
[2]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine

Arka plan ve amaç: In this study, it was aimed to evaluate the referrals between hospitals in Northwest Syria, to analyze the reasons for referral in the region, to shed light on the preventable reasons for referral, and to create the profiles of the referred patients.

Yöntemler: In this study, a retrospective evaluation of the patients who were referred to Azez Vatan Hospital, Çobanbey Hospital and Jarablus hospital within the borders of Northwest Syria between 01.01.2020 and 01.01.2021 and who were referred from these three hospitals was performed. The referral records in hospitals and ambulance stations were investigated. Demographic information, disease diagnosis, reason for referral, hospital referral, vital signs, Glasgow Coma Scale, and time zones and days of referral were scanned from these records.

Sonuçlar: A total of 899 people referred between hospitals were included in the study. The mean age of the patients was 39.24∓24.18 years and 530(59.0%) were male and 369(41.0%) were female.It was seen that the highest referral was made in the adult age group, and the least referral was made in the newborn group in both men and women.When the referrals were compared according to the months, it was determined that the patients were referred most in February, March and June, and at least in January.It was determined that patient referrals were made most frequently due to the need for intensive care, further investigation and treatment, materials and equipment, and the need for treatment under the supervision of pediatrics, neurosurgery and obstetricians.It was determined that respiratory distress and premature diagnoses were prominent in newborns, and trauma-related diagnoses were the most common diagnoses in children.Considering the adult and elderly age groups, COVID-19-related diagnoses were in the first place, while shortness of breath and acute MI in the elderly, acute MI and traumas in adults were found to be among the most common diagnoses.

Kararlar: In hospital conditions within the scope of humanitarian aid, the physical and medical care conditions of each hospital are not the same.Although not every specialist doctor or facility is available in every hospital, it is important that the situation can be compensated and referral can be provided in other hospitals in the region. In Northwest Syria, which is a poor region, inter-hospital referrals should be made within indications, taking into account the possibilities and aiming that patients receive the most appropriate service.

Anahtar Kelimeler: Suriye, interhospital transfer, referral to hospital, emergency health

S- 086

Characteristics Of Emergency Department Ophthalmology Consultations

Vehbi Özaydın[1], Fatma Sarı Doğan[2], Emel Altıntaş[3]

[1]Göztepe Prof.Dr. Süleyman Yalçın Şehir Hastanesi Acil Tıp Anabilim Dalı
[2]İstanbul Fatih Sultan Mehmet Eğitim Araştırma Hastanesi Acil Tıp Kliniği
[3]Ankara Eğitim ve Araştırma Hastanesi Acil Tıp Kliniği

Background and aim: Eye problems are common reason for patients to present to hospital. For those having eye complaints, to follow correct path for diagnosis and treatment, anamnesis and examination are crucial. It is reported that profiling the patients having eye complaints is important for shaping the educational programme and increasing the quality of healthcare. The purpose of this study is investigating the characteristics of opthalmology consultations sent from the emergency service.

Methods: A retrospective study is conducted. Ophthalmology consultations were assessed by using automatic control system of the hospital. Demographic features reasons for consultation, problems affecting one or both eyes, presence of foreign body, epithelial damage/ corneal abrasion, presence of occupational accident, time of request (in or out of working hours), presence of additional consultation, necessity of treatment and admittance to hospital of the patients were assessed

Results: Total of 175 patients were assessed. Mean age was 42± 16.78 (18-90). 131 (74.9%) of the patients were male. 136 (77.7%) consulted patients received treatment. The most common reason for consultation was foreign body, 97 patients (55.4%). The number of non-traumatic patients was 67 (38.3%) and the number traumatic patients was 11 (6.3%). Those 97 patients who were consulted for suspicion of foreign body resulted with 62 patients actually having a foreign body. The number of patiens having epithelial damage / corneal abrasion was 89 (50.9 %). 66 (37.7%) patients had complaints affecting both eyes. 23 patients (13.1 %) were consulted due to occupational accidents. 95 patients (54.3 %) presented to hospital at out of work hours. 7 patients (4%) had additional consultations. 3 patients (1.7 %) were admitted to the ophthalmology service.

Conclusions: Foreign body was the most common reason for ophthalmology consultation. It is shown that patients having foreign body additionally had epithelial damage/corneal abrasion. Eventhough those patients did not require admission to the hospital, a treatment was necessarry. Therefore, recognition of epithelial damage/ corneal abrasion will decrease the number of consultation requested, if added to clinical training as part of opthalmology rotation.

Keywords: ophthalmology consultation, emergency department, eye complaint

S- 149

Acil Serviste Konvülsif Olmayan Status Epileptikus

Vildan Avcu[1], Ayla Köksal[1], Muhammed Güner[1], Pelin Duman[1], Serkan Doğan[1]

[1]İstanbul Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

Arka plan ve amaç: Status epileptikus yıllık insidansı 100.000'de 1,3 ila 74 vaka arasında değişmektedir. Bu oran hem konvülsif hem de konvülsif olmayan status epileptikusu (NKSE) içerirken bazı çalışmalarda NKSE oranlamaya alınmamıştır. NKSE'nin tanı ve tedavisi kolay olmayıp etiyoloji, klinik, elektroensefalografi (EEG) bulguları gibi birçok değişkene bağlıdır. Hastaların yaklaşık yarısı ila üçte ikisi önceden nöbet veya epilepsi öyküsüne sahiptir. NKSE'nin klinik özellikleri büyük ölçüde değişebilir ve genellikle iki genel kategoriye ayrılır: afazi, konuşamama, amnezi ve katatoni gibi bozukluklar olan negatif semptomlar ile bir veya daha fazla kas grubunun ritmik seğirmesi, tonik göz gibi pozitif fenomenoloji, sapma, hippus veya nistagmoid göz sarsıntısı şeklindedir. Kesin NKSE'nin EEG paternleri ise kronik epilepsisi ve epileptik ensefalopati/sendromu olan hastalarda, temel EEG ile karşılaştırıldığında yoğunlukta veya frekansta önemli değişiklikler (genellikle daha hızlı bir frekans) gösteren sık veya sürekli genelleştirilmiş sivri dalga deşarjlarıdır. Bu olgumuzda da benzer EEG kaydı görülmüştür.

Vaka: 29 yaş erkek hasta, epilepsi tanılı, acil servise nöbet sonrası amnezi ve konuşamama ile getirildi. Hastanın ilk bakısında vital anormalliği yok. Nörolojik muayenesi olağan ense sertliği yok KİBAS bulgusu yok. Hastanın detaylı öyküsünde düzensiz ilaç kullanımı, madde kullanımı, travma öyküsü, yakın zamanda yeni ilaç kullanımı yok. Yapılan tetkiklerde enfeksiyöz elektrolit kardiyak böbrek fonksiyon değerlerinde anormallik saptanmadı. Hastaya yapılan Kraniyal BT, Kraniyal MR görüntülemede patoloji saptanmadı. Hastanın takiplerinde klinik durumunun açıklanması açısından konvülsif olmayan status epileptikus ön tanısı ile nöroloji konsültasyonu ve EEG çekilmiş olup Status Epilepticus tanısı ile YBÜ internasyonu yapılmıştır.

Kararlar: Acil servise nöbet geçirme sonrası başvurular çok sık olup hastaların hepsinde konvülsif ataklar görülmemektedir. Genel bir kural olarak, davranışta veya zihinsel durumdaki herhangi bir dalgalı veya açıklanamayan değişiklik, NKSE'nin dikkate alınmasını ve EEG ile değerlendirmeyi gerektirmektedir. Tıpkı bu hastada olduğu gibi detaylı anamnez, fizik muayene, kan idrar, görüntülemeler ve takip süreci ile NKSE tanısı göz önünde bulundurulmalıdır.

Anahtar Kelimeler: epilepsi, EEG, status epilepticus

S- 188

RETROSPECTIVE EVALUATION OF LACERATIONS REQUIRING STITCHES AT THE EMERGENCY DEPARTMENT

Mehmet Ali Ceyhan[1]

[1]Department of Emergency Medicine, University of Health Sciences, Ankara City Hospital, Bilkent, Ankara

Background and aim: In this study, we analyzed lacerations that require stitches, and also their etiologies, anatomical distribution, dispositions and demographic characteristics of the patients at the Emergency Department (ED) retrospectively.

Methods: Data of patients who had lacerations that require stitches at the ED of Ankara City Hospital between 01.01.2020 and 31.12.2020 were analyzed. Depending upon the patient records, age, gender, laceration mechanism, location of laceration, concomitant injuries, departments which were consulted, patients' results were analyzed retrospectively.

Results: Data of 1225 patients who had lacerations that require stitches were analyzed. 919 (75%) of these patients were male and 306 (24.9%) of them were female. 317 (25.8%) of patients were between 0-18, 908 (74.1%) of them were 18 years and older. Average age was 31.8±20.5 years. Lacerations occurred most frequently on the upper extremity (659 patient, 53.7%). Among laceration mechanisms, falls were in the first place (168 patients, 13.7%). 138 (11.2%) patients were admitted to a ward, 1075 (87.7%) patients were discharged from the ED. Plastic Surgery department was the most frequently consulted department (502 patients, 40.9%), (Table 1).

Conclusions: Lacerations that require stitches are mostly simple lacerations which may be associated with loss of function or poor cosmetic outcomes unless evaluated appropriately. All lacerations should be examined and treated carefully along with the mechanism of injury.

Keywords: Emergency department, lacerations.

S- 020

Eritema AB İgne

Sibel Güçlü Utlu[1], Onur Zengin[1]

[1]Sağlık Bilimleri Üniversitesi Erzurum Bölge Eğitim ve Araştırma Hastanesi

Arka plan ve amaç: Erythema ab igne (EAI) is a skin reaction caused by chronic exposure to infrared radiation in the form of heat. Unlike thermal burn, there is a longer exposure to lower heat. It has been reported that many heat sources such as electric stoves, heated seats, hot water bags, in-car heaters, electric blankets and laptop computers can cause this condition.Limited exposure to heat causes a mild and transient red rash, resembling a lace or fishnet, insufficient to cause a direct burn. Prolonged and repeated exposure causes marked redness and discoloration of the skin. Some patients may complain of mild itching and burning sensation. The application of hot water bottles or heat pads to treat chronic pain, exposure to vehicle heaters or furniture with built-in heaters, can be seen in occupationally endangered individuals who are locally exposed to heat, such as silversmiths, jewelers, bakers, chefs. In the treatment of this condition, the source of chronic heat exposure should be avoided. If the area is only mildly affected, the condition resolves spontaneously within a few months. If the condition is severe, resolution is unlikely if the skin is pigmented and atrophic. If the rash remains stable, a biopsy should be done to rule out the possibility of skin cancer. Treatment with topical tretinoin or laser may improve.

Vaka: A 45-year-old male patient, who applied to the emergency department, stated that he noticed the skin lesion in the picture (Picture 1), which he said started about 1 week ago, and that he had gradually darkened in color, that he had no pain and mild itching. Physical examination revealed reticular brown hyperpigmentation on the anterior aspect of the left thigh. In the patient's history, who did not use medication, he stated that he constantly runs a foot heater at night, and that he sleeps by leaving the device running on his left side as a location. The patient was diagnosed with EAI based on his history and physical examination. No biopsy was done. In the treatment, the patient was advised to terminate the current heater exposure. In addition, dermatology was consulted. In the patient who was started on hydroquinone, it was learned that the hyperpigmentation faded in the outpatient clinic controls and then completely disappeared.

Kararlar: As a result, long-term and bare use of the causative heater source on the skin may cause EAI formation on the area where it is used. As soon as the diagnosis of EAI is made, treatment should be started immediately. When diagnosed early, preventing the contact of the heat source with the skin, which is often the cause, is sufficient for the cure.

Anahtar Kelimeler: heat source, skin, diagnose

S- 163

Can High-Sensitive Troponin T Be Used in the Diagnosis of Pulmonary Embolism? Retrospective Analysis

Uzm. Dr. Sultan Özselçuk[1], Dr. Öğrt. Üyesi Semih Korkut[1], As. Dr. Cansın Kumsal Dikmeçli[1], As. Dr. Kaan Çağrı Gürel[1], Doç. Dr. Ramazan Güven[1]

[1]Başakşehir Çam ve Sakura Şehir Hastanesi

Background and aim: It is very important to find cardiac and noncardiac causes in patients followed in the emergency department for chest pain, shortness of breath, palpitation, syncope and cardiopulmonary arrest. One of the noncardiac causes is pulmonary embolism. In this situation, which is very important to diagnose, troponin values increase as in cardiac causes. We aim to understand retrospectively whether there is a correlation between troponin levels and embolism degrees in blood samples taken from patients with embolism.

Methods: Retrospective study Patients who were older than 18 years old and had troponin level who underwent Computed Tomography Angiography (CTA) in the red area of the training and research hospital between June 2022 and July 2022 were included in the study.

Results: 274 patients were included in our study, 45.3% of them were male. The most common presenting symptom of 274 patients was dyspnea (46%). While 71.5% of the CT scans taken for diagnostic purposes were interpreted as normal, the rest had positive embolism findings. Chest pain was lower in patients with high troponin levels ($p=0.002$). CT findings were higher in patients with low troponin values ($p=0.034$). It was found that chest pain was observed more frequently in patients who were discharged ($p=0.029$). CT findings of the discharged patients were normal ($p<0.001$); Bilateral, lobar and segmental incidences were found to be lower than the rate of patients who were not discharged ($p=0.022$; $p=0.003$; $p=0.037$; $p<0.05$, respectively).

Conclusions: There was no significant relationship between troponin level and embolism in patients admitted to the emergency department with suspected pulmonary embolism. Although there was a significant relationship between age and increase in troponin, no significant relationship was found between the diagnosis of embolism and hospitalization.

Keywords: embolism, d-dimer, CT angiography, troponin

S- 014

MEGA THROMBUS AND CARDIAC ARREST IN THE LEFT VENTRICLE AFTER COVID-19

Dağıstan Sakçi[1], Gül Şahika Gökdemir[2], Mehmet Tahir Gökdemir[3]

[1]Mardin Training and Research Hospital, Emergency Department, Mardin
[2]Diyarbakir Children's Hospital, Physiology, Diyarbakir
[3]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin

Background and aim: In this presentation, we presented a case of 57 years old who had COVID 19 was found to have mega thrombus in the left ventricle. In the patient's story, we learned that he was hospitalized 2 months ago due to COVID 19. It is known to induce a prothrombotic state, particularly manifested by microthrombosis, as observed in post-mortem specimens from individuals with COVID-19 who died after SARS-CoV-2 infection (1). This thrombotic state resembles a process known as immunothrombosis, in which the immune and coagulation systems cooperate to block pathogens and limit their spread. An important pathophysiological feature of COVID-19 is the development of a prothrombotic state. High fibrinogen, von Willebrand factor (VWF) and fibrin degradation product D-dimer in the blood cause a coagulopathy specific to COVID-19. This suggests that a severe inflammatory process rather than classical disseminated intravascular coagulation (DIC) causes a hypercoagulation process.

Case: A 57-year-old male patient brought to the emergency department with cardiac arrest. The patient was hospitalized for 10 days due to COVID 19 in 2 months ago. His thorax CT showed pneumonic infiltration compatible with COVID 19 (Fig.1). The patient, who developed sudden palpitations and shortness of breath approximately two months after he was discharged from the hospital, was brought to our hospital as an arrest. The patient was returned after resuscitation. Brain MRI was performed to exclude intracranial hemorrhage and ischemia. In the CT angio, a thrombus of approximately 41 x 26 mm with hypodense appearance was detected in the left atrium (Fig.2). The patient's ECG was unremarkable except for sinus tachycardia. The patient, who was admitted to the hospital, died shortly after he was transferred to the intensive care unit.

Conclusions: In this case, we emphasized that high levels of proinflammatory and hyperthrombotic activity in COVID-19 patients can significantly affect the final outcome, even in young patients without prior cardiac history or significant comorbidities. Ultimately, acute coronary syndrome, including sudden cardiac death, may occur after discharge.

Notes (Optional): More evidence is needed to determine whether therapeutic research can focus on anti-inflammatory mediators or, conversely, effective anticoagulation that can prevent cardiovascular damage.

Keywords: Covid 19, Mega Thrombus, Cardiac arrest

S- 150

LOWER EXTREMITY WEAKNESS AFTER COVID PNEUMONIA: GULLIAN BARRE SYNDROME(GBS)

Ahmed Edizer[1], Bilal Yeniyurt[1], Ayşe Fethiye Basa Kalafat[1], Yavuzselim Koca[1], Ertuğrul Ak[1], Serkan Doğan[1]

[1]İstanbul Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

Background and aim: GBS occurs in 1 to 2 cases per 100,000 per year worldwide. It can be seen due to infections, vaccines and drugs. In this case, we will evaluate the weakness in the legs of a patient who was hospitalized in the intensive care unit due to Covid-19 20 days ago.

Case: An 86-year-old female patient was admitted to our emergency department with the complaint of progressively increasing leg weakness for 1 week. It is known that the patient does not have a known chronic disease and does not use medication. The patient has a history of 5 days of hospitalization in the intensive care unit with a preliminary diagnosis of Covid-19 pneumonia 20 days ago. The weakness of the patient's legs is bilateral. It starts from the tips of the toes and progresses symmetrically to the proximal. There is no accompanying pain, temperature increase or diameter difference. There is no history of trauma. In the physical examination of the patient, the arterial blood pressure was : 148/74 mmHg, heart rate: 75 per/minute, respiratory rate: 20 per/minute, fever: 36.3 centigrade degrees, oxygen saturation: 93. Neurological examination was done.No pathology was detected in the cranial nerve examinations. Muscle strength is full in the upper extremities. Bilateral muscle strength in the lower extremities was 1/5. Bilateral deep tendon reflexes were hypoactive. The plantar reflex was evaluated as bilateral flexor.. Routine blood tests of the patient were requested. No acute, emergency pathology was observed in hemogram, biochemistry and arterial blood gas. No new acute infarct was seen in the central nervous system imaging. The patient was consulted with the Neurology Department. The patient whose EMG result was compatible with GBS was admitted to the Neurology service.

Conclusions: Long-term and short-term neurological effects can be seen in patients after Covid-19. GBS can also appear in the short term after Covid-19.

Keywords: Covid-19, GBS

S- 026

Side Effects Of Cabergoline

Oğuzhan Açıkgöz[1], Rohat Ak[1], Erdal Yılmaz[1], Avni Seyhan Uygar[1], Nihat Müjdat Hökenek[1]

[1]Kartal Dr Lütfi Kırdar Şehir Hastanesi

Background and aim: Cabergoline is an ergot derivative and a potent dopamine D receptorb agonist.Indications, Cabergoline is a dopaminergic medication used in the treatment of high prolactin levels, prolactinomas, Parkinson's disease, and for other indications. Some side effect, heart valve and related disorders, leakage of fluid in the pericardium (pericardial effusion or inflammation (pericarditis). This is a very common side effect (affects more than 1 in 10 people). Early symptoms may be one or more of the following: difficulty breathing, shortness of breath, palpitations, feeling faint, chest pain, back pain, pelvic (groin or lower abdomen) or swelling in the legs. In this case, we will discuss a female patient with cabergoline-related side effects.

Case: A 34-year-old female patient was adnitted to the emergency department with palpitations and dsypnea. The patient has no known chronic disease. Vital signs on admission were as; fever: 36.5 C, BP: 120/70 mmHg, pulse: intermittent tachycardia attacks developed between 50/min and 150 /min and sO2: 98%. Physical examination: all system findings were normal. The patient, who had palpitations for 3 days, had a cesarean section 3 weeks ago due to intrauterine death. Cabergoline was started for the patient to prevent lactation after the operation. Still continues to use. She became covid after the operation and the drug she has been using for 3 weeks, enoxaparine, is finished today. During the follow-up of the patient, tachycardia attacks with an intermittent heart rate between 150/min and 55/min developed. According to the reviews, no pathology was observed in the chest X-ray of the patient. Pericardial effusion was not detected in bedside ultrasound and the right heart cavities were normal. Post covid myocarditis or pericarditis due to cabergoline was considered in the preliminary diagnosis. The patient was consulted to cardiology. No acute pathology was observed in ECG. On echocardiography: EF normal, ascending aorta normal, no pericardial effusion was observed, no major valve pathology. Side effects that may occur with cabergoline have not been detected. Cardiology polyclinic control was recommended.

Conclusions: This case highlights the need of regular assessment of all cabergoline treatment despite initial physical examination is normal to improvement patients care.

Keywords: Cabergoline, Fluttee

S- 182

Botulism After Botulinum Toxin Injection of The Lower Esophageal Sphincter

Sakine Neval Akar[1], Yunus Emre Sağmal[1], Merve Ekşioğlu[1]

[1]T.C SBÜ Fatih Sultan Mehmet Eğitim ve Araştırma Hastanesi

Background and aim: Botulinum neurotoxin(BoTx) can target multiple tissues including motor and sensory neurons, inhibiting release of acetylcholine from nerve endings to block cholinergic neuromuscular innervation of striated and smooth muscles, also cholinergic innervation of tear, sweat, and salivary glands. Nowadays, the indications of botulinum toxin are constantly expanding. As treatment for achalasia botulinum toxin injection (BTI) was first introduced in 1995. BTI is generally considered safe, but its widespread use raise safety issues. In this case, we aimed to present the patient who was admitted to our emergency service with botulism symptoms after BTI of the lower esophageal sphincter.

Case: A 49-year-old female patient applied to the emergency room with complaints of diplopia, dysphagia, general weakness for a week. There were no other complaints and known medical condition. The patient had BTI of the esophageal sphincter a week ago. General condition was good, conscious, cooperative, oriented. Arterial blood pressure: 118/60 mm/Hg, pulse: 88/min, fever: 36.2 C°, oxygen saturation 98% at room air, respiratory rate: 12/min. Electrocardiography was sinus rhythm, no-ischemic signs. In neurological examination; bilateral gaze-evoked nystagmus, dropped left-nasolabial fold, 4/5 muscles strengths of bilateral upper and lower extremities, normoactive deep tendon reflexes. Other system examinations were normal. There was no significant change in the blood tests of the patient. In brain computed tomography and cranial magnetic resonance imaging(MRI), reporting cavernomas.The patient, was diagnosed with botulism, was transferred to Neurology service for treatment and follow-up. In electromyography, motor end-plate dysfunction was reported. Pyridostigmine bromide 180 mg/day and budesonide 3mg/day therapies was given. Because not being in acute phase of botulism, antitoxin was not given. After the patient's symptoms were resolved, discharged with additional medical advice and control appointment.

Conclusions: Botulism is lethal paralytic disease caused by toxins. Although randomized controlled trials could contribute data on the safety of BoTx, they actually do not report serious or long-term adverse events of botulinum toxin. The effects of generalized diffusion are not well studied. After therapeutic use of BoTx, adverse events are more common. Physicians must be aware of the hazards use of botulinum toxin products. Early recognition of botulism, and rapid treatments improve clinical outcome.

Keywords: botulism, botulinum toksin injection, long-term outcome, botulinum toksin side effects

S- 085

Evaluation of tracheal stenosis with 3D imaging computer tomography in Emergency Department: A case report

Gürkan Akman[1]

[1]University of Health Sciences, Kartal Dr. Lütfi Kırdar City Hospital, Emergency Department

Background and aim: Evaluating a patient with tracheal stenosis is challenging. There are many treatment options but there is no objective criteria for patients to have which one. Usullay physician's clinical experiment tells the last word. Three dimensional technology can be an objective toll to manage these patients in emergency departments.

Case: A forty year old patient has brought to emergency department with stridor by emergency medical service. On the arrival patients blood pressure was 150/90 mmHg, pulse was 115 per minute, oxygen saturation was 85 per cent. Also patient was breathing 35 times per minute. On physical examination on the upper airways there was stridor. Breath sounds were bilaterally equal. There was no more pathological findings. In the patient's past medical history patient had tracheal stenosis and 3 times surgery for that. The last operation was done one year ago as a tracheal dilatation. In laboratory findings, white blood cell: 15.270µL, c-reactive protein : 110, creatinine : 0.56mg/dl , urea: 46 mg/dl , ph: 7.36 hco3: 20.9mmol/L. pCO2: 50 mmHg. A narrowed trachea was seen on the patient's computed tomography. The severity of this stenosis was objectively revealed by three-dimensional tomography. The patient was then consulted with thoracic surgery. Urgent tracheal operation was decided. The patient was discharged after staying in intensive care for 3 days.

Conclusions: Tracheal dilatation patients are challenging. Air hunger and high carbon dioxide levels can cause irreversible results. Today day by day tomography technology improves. However, with the use of three-dimensional tomography in emergency services, it becomes easier for patients to reach absolute treatment. In this case, three-dimensional tomography was used and the tracheal diameter of the patient was measured and the severity of the stenosis was noticed. Ultimately, clinical conditions such as tracheal stenosis are like being on the edge of a cliff. Clinicans must use all objective tools to predict when the patient may fall and to prevent mortality. Three-dimensional tomography is a technology that should be used in critically ill patients in emergency departments.

Keywords: tracheal stenosis, 3D generated computer tomography

S- 101

UTERUS MYOMA=LUNG EDEMA?

İbrahim Saraç[1], Sidar Şiyar Aydın[1], Halil İbrahim Doru[2], Nurda Öztürk[2], Orhan Delice[2], Onur Zengin[2]

[1]Ministry of Health University, Erzurum City Hospital, Department of Cardiology Erzurum
[2]Ministry of Health University, Erzurum City Hospital, Department of Emergency Medicine Erzurum

Background and aim: Mitral stenosis (MS) is often associated with rheumatic fever. While patients with MS may remain asymptomatic for years, they gradually become symptomatic with the increase in the degree of stenosis. In these patients, cardiac and noncardiac pathologies may cause exacerbation of symptoms or decompensation of patients. In our case, we will talk about our patient with MS who applied to the emergency department with menometrorrhagia and accompanying crescendo dyspnea and tachycardia for about 1 week.

Case: A 41-year-old female patient was diagnosed with rheumatic valve disease in childhood and had a history of giving birth 20 years ago, and regular cardiological follow-up was not performed. Her occasional menometrorrhagia bleeding has been intensified for about 1 week, and crescendo-style dyspnea and palpitations have been added to the complaints. In the evaluation of the patient who applied to the emergency department; laboratory examinations hb: 7.8 htc:23.8 and other examinations were in the normal range, ECG: sinus tachycardia, respiratory sounds: crepitant rales in the lung basals, pretibial edema: 1/1, Presystolic aggravation, mitral opening sound, diastolic bearing was takenin cardiac auscultation examination. The patient, who was orthopneic and was diagnosed with giant uterine myoma, was consulted to the cardiology clinic in line with the FE findings. In the evaluation and imaging, the patient was diagnosed with advanced ms.

Conclusions: Combining the symptoms of the patients with the findings of the physicians is indispensable for diagnosis. As seen in this patient, it is possible to elucidate clinical findings that cannot be seen simultaneously, such as acute haematocrit decrease and lung congestion, only with a detailed anamnesis and physical examination, and it is of vital importance.

Keywords: pulmonary edema, UTERUS MYOMA, Mitral stenosis

S- 152

TUMOR LYSIS SYNDROME IN AN UNFOLLOWED PATIENT WITH CHRONIC MYELOCYTIC LEUKEMIA (CML): A CASE REPORT

Hasip Kızılay[1], Anıl Burak Tülü[1], Selahattin Gürü[1], Nilüfer Aydın[1], Hakan Oğuztürk[1]

[1]Ankara Şehir Hastanesi SUAM Acil Tıp Kliniği

Background and aim: Tumor lysis syndrome (TLS) is an oncological emergency that causes massive cell destruction and consequent release of high levels of potassium phosphate and nucleic acid into the systemic circulation. The most common causes of death in TLS are cardiac arrhythmias and acute renal failure.[1,2] LS is more common in Burkitt's Lymphoma, Acute Lymphoblastic Leukemia and Chronic Myelocytic Leukemia [1, 2] We report a case of a patient presentih with TLS secondery to Chronic myeloproliferative leukemia (CML).

Case: A 28-year-old male patient, who was diagnosed with CML, presented to the emergency service with complaints of shortness of breath, cough, sputum for 15 days, hematuria for 4 days, and deterioration in general condition. The patient, who was under treatment with imatinib 400 mg and whose follow-up was delayed for a long time, stopped using the drug. General condition is moderate, conscious, oriented, cooperative, bilateral rales heard on lung auscultation, no defensive or rebound tenderness in abdominal examination. Vital findings were normal In the laboratory parameters of the patient, urea:169 mg/dl, creatinine: 9.61 mg/dl, uric acid:>20 (3.7-9.2) mg/dl, potassium: 3.4 meq/L, calcium: 6.6 (8.7 -10.4) mg/dl, phosphorus: 9.9(2.4-5.1)mg/dl pct:12.77 (<0.16) mcg/L, crp:99(0-5) g/L, wbc: 316.7*10^9/L , neu: 261.5*10^9/L, hg: 5.9g/dl, plt: 26*10^9/L, ph:7.06, In the patient's imaging, brain computed tomography (CT) was performed which has reported by the radiology clinic as: A slightly hyperdense parenchymal hematoma of approximately 70*52 mm in size in the right frontal lobe accompanied by peripheral vasogenic edema was observed. The patient was started to be treated in the emergency room and than the patient was transferred to the general intensive care unit for further examination and treatment.

Conclusions: Tumor Lysis Syndrome is a common oncological emergency that can be life-threatening in all malignancies. Emergency room physicians should be alert for TLS when evaluating patients with malignancy, and the tests to support the diagnosis of TLS should be completed quickly and treatment should begin in the emergency room.References[1] Van Etten R, Larson R, Rosmarin A. Clinical manifestations and Diagnosis of Chronik myeloid leukemia- official reprint from UpToDate-jul.2020.[2] Larson R, Pui C, et al. TLS: Prevention and Treatment-official reprint from UpToDate,2022.

Keywords: Tumor lysis syndrome Emergency Medicine

S- 206

EVALUATION OF BRAIN TOMOGRAPHY OF PATIENTS UNDER 2 YEARS OLD, COMING TO THE EMERGENCY DEPARTMENT WITH HEAD TRAUMA

Abdullah Erdoğdu[1]

[1]Çam Ve Sakura

Background and aim: Every day, many infants with head trauma apply to the emergency services. This study includes a retrospective superficial analysis of patients under the age of 2 who came to the emergency department with head trauma.

Methods: This retrospective study was conducted between September 2021 and September 2022 in the education and research hospital emergency department of patients under the age of 2 who were admitted to the emergency department with head trauma and had brain tomography; It includes the evaluation of fracture-bleeding in tomography and its numerical note.

Results: We researched 328 patient in our study. Among the patients who had head trauma by falling under 1 meter, 75 were girls and 104 were boys. While CT scans of 167 were normal, 9 had fractures and 3 had bleeding. While there was 1 patient with poor consciousness among these patients, hospital follow-up was performed for 7 patients. While there are 149 patients with trauma over 1 meter, 87 of them have normal tomography. While 42 have fractures, 20 have bleeding. The consciousness level of 10 patients was not normal and 39 patients were followed up in the hospital. 2 patients died. There is a correlation between the trauma of the patients and the pathologies resulting from the trauma. According to PECARN, patients for whom tomography is recommended have more pathological findings. Out of a total of 982 patients, 328 patients were included in the study because their notes on the Hospital Information Management System were complete and they had pure head trauma.

Conclusions: In patients under 2 years of age who come to the emergency services with head trauma, tomography and interpretation are important in terms of understanding the clinical course of the patient and determining the need for observation in the hospital. The exemplary studies predict that following the PECARN guidelines has greater clinical accuracy and will reduce the cost of unnecessary CT scans.

Keywords: brain tomograpy trauma

S- 077

Hydatid cyst rupture

İsmail Enver Obuz[1], Melih Uçan[1], Salih Fettahoğlu[1], Süreyya Tuba Fettahoğlu[1], İsmail Yeşiltaş[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Hydatid cyst disease is a parasitic infection caused by Echinococcus granulosus. It ismost common in the liver and lungs. Most of the cysts are asymptomatic and may regressspontaneously. The clinical picture may vary depending on the organ affected by the parasiticinfection, the size of the cyst and the interaction of the cyst with the neighboring organs;however, rarely, severe anaphylactic shock may occur when the ruptured cyst spreads into theperitoneal cavity.

Case: A 22-year-old female patient was admitted to the emergency room green area withabdominal pain, diffuse redness in the body, urticarial lesions. The patient who did not getrelief despite symptomatic treatment in the green area was taken to the red area. On physicalexamination performed in the red area, there was widespread tenderness in the abdomen.Bedside abdominal ultrasound was performed in the patient whose vitals were normal andfluid was observed in the hepatorenal area. Contrast-enhanced abdominal tomography wasrequested from the patient whose routine examinations revealed Hgb 14.5 WBC 19.37neutrophils 17.6 pH 7.33 lac 3.4 INR 5.6. Contrast-enhanced abdominal CT: The liver is innormal position and size. A hypodense cystic mass lesion containing separated germinativemembranes, approximately 10x8.5 cm in size, is observed in the right lobe of the liver.The patient was consulted to the general surgery. He wasadmitted to the general surgery service.

Conclusions: Hydatid cysts can be seen most frequently in the liver and secondly in the lung. Mostof the cysts are asymptomatic and often regress spontaneously. The clinical picture may varydepending on the organ affected by the parasitic infection, the size of the cyst and the interaction ofthe cyst with the neighboring organs. Our patient presented to the emergency department with thefirst complaint of abdominal pain and urticarial lesions. Early and timely detection of theprogression to common symptoms during follow-up, even in patients presenting in the emergencydepartment with the rarest symptoms of the disease, provides significant reductions in morbidityand mortality.

Keywords: hydatid cyst rupture, anaphylaxis, emergency department

S- 016

THE EFFECT OF WAITING TIME IN THE EMERGENCY ROOM ON MORTALITY OF PATIENTS HOSPITALIZED FROM THE EMERGENCY ROOM TO THE COVID-19 INTENSIVE CARE UNITS DURING THE COVID-19 PANDEMIC PERIOD

Yücel Yüzbaşıoğlu[1], Mustafa Girayhan Ünlü[1], Yavuz Katırcı[1]

[1]Gülhane Eğitim Ve Araştırma Hastanesi

Background and aim: In this study, the effect of waiting time in the emergency room (ED) on mortality was investigated in COVID-19 patients who applied during the Corona Virus Disease-19 (COVID-19) Pandemic period.

Methods: Our study was conducted as an observational retrospective study between 29 March 2020 and 17 January 2021 in the Emergency Service of Gülhane Training and Research Hospital.

Results: The median age of 258 cases included in the study was 74 (65-83) years. 181 (70.15%) cases died and the median age was 77 (66-84) years. In the study, hypertension (49.6) was the most common in patients hospitalized in intensive care units, but no relation with mortality was found (P=0.446). All 13 (14%) patients with Alzheimer's-Dementia with positive PCR test died and it was statistically significant (p=0.019). In the study, the median waiting time for hospitalization in the emergency department was 8 (4-14) hours. The median waiting time for hospitalization in the emergency department was 8 (4-13.5) hours in the patients who died, and it was found to be longer than the patients who were discharged (p=0.216). While the median mortality time of the cases waiting 8 hours or less in the emergency department was 8 (3-14) days, the median mortality time of the cases waiting longer than 8 hours was 6 (3-12.5) days. It was determined that the patients who waited 8 hours or less had a longer mortality day, but no relation with mortality was found (p=0.701). The median length of stay in the intensive care unit for those who waited 8 hours or less in the emergency room was 10.5 (4-17) days, while it was 9 (4-18) days for those who waited longer than 8 hours. There was no statistical relationship between those who waited in the emergency room for more than 8 hours, increasing the length of stay in the intensive care unit. (p=0.627).

Conclusions: Although the duration of death in the intensive care units of the patients with a waiting time of 8 hours or more in the emergency department was shorter, its relationship with mortality could not be demonstrated.

Keywords: Mortality, emergency room, COVID-19, intensive care, waiting time

S- 065

The utility of systemic inflammatory markers for distinguishing uncomplicated and complicated acute appendicitis in adult patients: A 3-year retrospective analysis

Özgür Söğüt[1], Hüseyin Ergenç[1], Seçil Yesilaliaoğlu[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Background and aim: This study aimed to investigate the predictive power of serum systemic inflammatory markers including neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR), monocyte-eosinophil ratio (MER), and C-Reactive Protein (CRP) levels for distinguishing uncomplicated and complicated acute appendicitis in adult patients admitted to the emergency department (ED).

Methods: This retrospective, cross-sectional, observational and single-center study enrolled 212 consecutive adult patients with acute appendicitis who were admitted to the ED of our tertiary care university hospital between 01 January 2019 and 31 December 2021. Patients were divided into two groups (Group I, uncomplicated acute appendicitis; group II, complicated appendicitis) according to their surgical findings and histopathological examination. Systemic inflammatory markers measured on admission were compared among patient groups to identify factors associated with complicated acute appendicitis.

Results: A total of 132 patients, 83 male (62.9%) and 49 female (37.1%) were included in the study. The mean age was 34.7±13.40 years. Based on the histopathological examination, the number of patients in group I was 103 (78.03%) and 29 (21.96%) in group II. Laboratory findings revealed no significant differences between groups I and II patients in terms of mean serum NLR, MER and CRP values (p=0.096, p=0.248, and p=0.297, respectively). However, the mean serum PLR in group II patients was statistically significantly higher than those in group I (p=0.032). The mean serum monocyte and monocyte fraction (%) values were significantly lower and the mean serum neutrophil fraction (%) value was higher in group II patients compared to those with group I patients. Receiving operator characteristic (ROC) analysis identified a serum PLR cut-off value of ≥133.73 for distinguishing patients with complicated appendicitis from patients with noncomplicated appendicitis, with 60% sensitivity and 58.4% specificity. Additionally, ROC analysis revealed a cut-off monocyte fraction (%) level of ≤6 , with 72% sensitivity and 64% specificity, for for distinguishing patients with complicated appendicitis from patients with noncomplicated appendicitis.

Conclusions: Our findings indicate that the mean serum NLR, MER, and CRP values measured on admission to ED in adult patients with acute appendicitis, could not predict complicated acute appendicitis. However, mean serum PLR and neutrophil and monocyte counts can be useful in distinguishing complicated cases.

Keywords: Complicated acute appendicitis, C-reactive protein, NLR, PLR

S- 098

Do Not Say That The Young Patient Does Not Have Pulmonary Embolia!!!

Ali Kablan[1], Hakan Oğuztürk[1]

[1]Ankara Bilkent City Hospital

Background and aim: Pulmonary embolism (PE) is one of the main diseases that cause death in hospitalized patients even today. Non-specific signs and symptoms of PE make it difficult to diagnose in the emergency department. Computed tomography pulmonary angiography (CTPA) is the reference method in the diagnosis of PE in the emergency department. It is the most sensitive diagnostic method, especially in high-probability cases. Little is known in younger patient groups where the diagnosis of PE is not expected. Therefore, the value of CTPA in diagnosis comes to the fore.

Case: A 25-year-old male patient who applied to our emergency department with the complaint of chest pain stated that his complaints had been for two days. Chest pain was stinging and pleuritic in nature. Chest pain was not accompanied by shortness of breath, cough, sputum and hemoptysis. The patient without comorbidity stated that he sat for a long time and played board games (okey etc.). His vitals were stable, his saturation was 99% and his pulse was 100/min. In blood tests, CRP:61g/L(0-0.005), WBC:10x10^9/L(3.9-10.2), troponin:23ng /L(< 45), D-dimer (quantitative): 1.28mg/L(< 0.55). In CTPA taken to the patient; Filling defects consistent with PE were observed in the right lung middle lobe pulmonary artery, lateral and medial segmental branches, and basal segmental pulmonary arteries of the right lower lobe. In the right lung lower lobe posterior segment, a consolidation area with foamy ground glass areas is observed at the base of the pleura in the basal section, and the appearance is consistent with pulmonary infarction.

Conclusions: Although PE is rare, especially in patients under the age of 40, the most common risk factors in all age groups are immobility and recent surgery. In a study, previous history of venous thromboembolism was found at a higher rate in young patients, and the incidence of chest pain and hemoptysis was found more frequently in younger patients.

Notes (Optional): Even in young patients admitted to the emergency department, in the presence of chest pain and hemoptysis, CTPA should be performed without loss of time, as it is one of the first diagnoses to be considered in the differential diagnosis

Keywords: embolism, pulmonary, young, diagnostic, emergency

S- 023

Comparison of Wells and Geneva Scoring Systems

Mehmet Kemal Emem[1], Mehmet Özgür Erdoğan[2], Şahin Çolak[1], Nihat Müjdat Hökenek[1]

[1]Cemil Taşcıoğlu Şehir Hastanesi
[2]Bakırköy Sadi Konuk Eğitim Araştırma Hastanesi

Background and aim: Pulmoner embolism is a disease that confronts with various clinical findings.Symtoms and clinical signs of pulmoner embolism are not specific to the disease.Various scoring systems are used in the differential diagnosis of pulmonary embolism.Wells and Geneva scores are most common ones.The purpose of this study is to compare these scoring systems and evaluate the differences of the scoring systems.

Methods: The study was conducted as a retrospective screening of patients with pulmonary embolism between January 2013 and November 2016. Laboratory values ,chest x –ray findings,physical examination findings,arterial blood gas values, Wells and Geneva scores are collected.The results of the cases were analyzed with SPSS ver 20 and Medcalc ver 12,5

Results: Computed tomography pulmonary angiography of Eight –two (%8,5) of 960 patients included in the study revealed pulmonary embolism in the main pulmonary artery.Wells and Geneva scores were significantly higher in the pulmonary embolism group compared to the control group.The areas under the roc curve of both scoring systems are significantly high. The area under the roc curve of the Wells score was significantly higher than the AUC of Geneva score.

Conclusions: The geneva score showed a low specificity at low values. The Wells score is more useful in diagnostic terms than the genevo score.

Keywords: genevaa score, wells score, pulmary embolism

S- 024

Miscarriage in the Emergency Department of a Refugee Woman with Vaginal Bleeding: A Case Report

Emre Kudu[1], Sinan Karacabey[1]

[1]Marmara University Pendik Training and Research Hospital, Department of Emergency Medicine

Background and aim: After the crisis in Syria in 2011 and the civil war that followed, many refugees have migrated. Many people live in poor conditions and do not receive good health care. Here, we will present a refugee who presented to the emergency department with vaginal bleeding, did not know that she was pregnant, and had a-miscarriage in the emergency department(ED).

Case: A 33-year-old female patient was admitted to the ED with vaginal bleeding. The patient immigrated to Turkey 2-years ago and had no known internal disease. The patient could not remember the date of the last menstrual period but said that she did not notice any delay. In the physical examination of the patient, the abdomen was soft, and no defense or rebound was detected. In her external examination, bleeding in the form of leakage from the vagina was observed, and there was no sign of trauma. Meanwhile, the patient said that she had abdominal pain and miscarried in the ED with spontaneous bleeding. The patient was evaluated by obstetrics and gynecology department and was hospitalized for curettage.

Conclusions: With the crisis life in Syria has become difficult in many respects. One of the leading ones is access to health services and health education. A study conducted in Northwest-Syria in 2017 found that the number of obstetricians and gynecologists is very low (0.02 per 1000 people) and the public's knowledge about antenatal/prenatal care is very low. With the worsening of the conditions, refugees started to immigrate. Approximately 8 million Syrians continue their lives as refugees in Turkey. Even after migrating, these refugees are socially disadvantaged, have higher substance-cigarette consumption during pregnancy, and tend to care less about antenatal visits. As a result, more pregnancy complications are seen and maternal/fetal mortality is higher.In our case, a refugee with limited access to healthcare is presented. This person didn't receive antenatal care and didn't receive any pregnancy-family planning training. Unfortunately, the patient's pregnancy resulted in a miscarriage in the ED. Good antenatal care training and reproductive health training are essential for better maternal and fetal outcomes, especially in displaced persons such as refugees.

Keywords: Abortion, Refugee, Reproductive Health, Pregnancy

S- 022

Serum Iron Parameters In Patients With Iron Deficiency Anemia, Anemic Rheumatoid Arthritis And Anemic Liver Cirrhosis Patients

Perihan Özkan Gümüşkaya[1], Teoman Soysal[2]

[1]Internal Medicine Clinic, Prof. Dr. Cemil Tascıoglu City Hospital, Istanbul,Turkiye.
[2]Department of Hematology. Istanbul University, Cerrahpasa Faculty of Medicine, Istanbul, Turkiye.

Background and aim: Iron deficiency anemia is the most common form of anemia in the world. Another types of anemias are anemias with chronic diseases and liver cirrhosis. When combined anemias coexist, diagnosis becomes difficult and an additional parameter is required. This parameter is "Serum Soluble transferrin receptor (sTfR)". We aimed to show the relationship between sTfR level and other iron parameters in patients with iron deficiency anemia, anemic rheumatoid arthritis and anemic liver cirrhosis, and to evaluate it as an alternative method to gold standart invasive bone marrow iron staining.

Methods: Our study was carried out on 4 groups consisting of 18 patients with iron deficiency, 18 patients with rheumatoid arthritis and anemia, 18 patients with liver cirrhosis and anemia, and 18 healthy individuals. Iron (Fe) parameters, vitamin B-12, folate, C-reactive protein (CRP), sedimentation, Thyroid stimulating hormone (TSH), urea, creatinine, alanine aminotransferase (ALT), albumin, hemogram, peripheral smear and sTfR levels were studied.

Results: In our evaluation, sTfR level was significantly higher in patients with iron deficiency anemia compared to other groups ($p<0.01$). No significant correlation was found between sTfR and other parameters in the anemic patient group with rheumatoid arthritis. Negative correlation of sTfR with platelet number, transferrin saturation (TS) and ferritin ($r=0.019$); and positive correlation of MCV with iron levels ($r=0.005$) have shown that MCV, TS, Fe and ferritin act together with sTfR in patients with liver cirrhosis to show signs of iron deficiency anemia.

Conclusions: In the diagnosis of iron deficiency accompanying chronic disease or liver cirrhosis, the evaluation of the usual iron parameters together with the sTfR level will be a more reliable and perhaps an alternative approach to the determination of bone marrow iron score.

Keywords: iron deficiency, chronic disease, sTfR

S- 038

Acil Servise 24 Saat İçerisinde Tekrar Başvuran Hastalar›n Değerlendirilmesi

Özlem Karagün[1], Hasan Yeşilağaç[1]

[1]Başkent Üniversitesi Tıp Fakültesi Acil Tıp AD

Arka plan ve amaç: Bu çalışmanın amacı, acile ilk 24 saat içinde tekrar başvuran hastaların demografik ve klinik özelliklerini değerlendirmek ve acil servis tekrar başvuru oranlarını belirlemektir.

Yöntemler: Bu retrospektif çalışmada, 01.09.2021-30.09.2022 tarihleri arasında Başkent Üniversitesi Dr Turgut Noyan Adana Uygulama ve Araştırma Merkezi Erişkin Acil Servisi'ne ilk 24 saat içerisinde tekrar başvuru yapmış ve çalışmaya dahil olma kriterlerini taşıyan hastaların demografik ve klinik özellikleri, hastane bilgi yönetim sisteminden (HBYS) alındı. Elde edilen bulgular SPSS Statistics (SPSS 26) programı kullanılarak, tanımlayıcı istatistiksel metotlar ve Ki-Kare testi aracılığı ile analiz edildi.

Sonuçlar: 01.09.2021-30.09.2022 tarihleri arasında Başkent Üniversitesi Dr Turgut Noyan Adana Uygulama ve Araştırma Merkezi Erişkin Acil Servisi'ne toplam 16464 hasta başvurusu oldu. 24 saat içerisinde tekrar başvuru yapan 448 hastanın, 182'si (%40,6)kontrol muayene, 79'u (%17,6) 18 yaş altı ve 39' u(%8,7) eksik veri olması, 2 'si (%0,4) de kendi isteği ile ayrılma nedeni ile çalışmaya alınmazken, 146 sı (%32,7) çalışmaya dahil edildi.Çalışmaya alınan hastaların %69,2 si 65 yaş ve üzerinde iken %30,8 i 65 yaşın altında ve %55,5'i erkek, %44,5'i kadın idi. Tekrar başvurulara bakıldığında, %67,1 'nini hafta içi, %76,7 sinin de mesai dışındaki saatlerde (16:00-08:00) olduğu görüldü. En sık görülen ko-morbiditelerin Hipertansiyon (%33,1) ve Onkolojik hastalıklar (%20,6) olduğu tespit edildi. İlk başvuru şikâyetlerinin %37,7 si karın ağrısı idi. Hastaların %77,7 'si aynı şikâyet ile başvurmuştur. İlk başvuruda en sık konulan tanı, %11 ile renal kolik, tekrar başvurularda en sık konulan tanı yine %9,6 ile renal kolik idi.İlk başvuruda konsültasyon oranı, %30,8,tekrar başvuruda ise %42,5 olarak saptanmıştır. Acil servise 24 saatte tekrar başvuru yapan hastaların %61,6'sı taburcu edilirken, %34,2'si hastaneye yatmış, %4,1'i ise yatışı kabul etmeyerek kendi isteği ile acilden ayrılmıştır. Yatış verilen hastaların %31,5'i servise, %0,7'si ise yoğun bakıma yatmıştır. Tekrar başvuruda hastaların %24'ü aynı doktor, %76'sı ise farklı doktor tarafından değerlendirilmiştir.

Kararlar: Tekrar başvuru nedeni olarak hastaların belirttikleri temel durumlar şikayetlerin devam etmesi, artması veya ek şikayetlerin gelişmesidir. Hastanın ilk değerlendirilmesinde tecrübeli hekimlerin olması, hastaların hastalıkları hakkında bilgilendirilmesi, beklenen seyrinin anlatılması, kullanacağı ilaçlar varsa tarifi ve beklenen potansiyel etki ve yan etkilerinin anlatılması ile tekrar başvurular önemli ölçüde azalacaktır

Anahtar Kelimeler: Acil servis, tekrar başvuru oranı

S- 059

Retrospective Analysis of Patients Admitted to the Emergency Department for Malaria

Serel Kabasakal[1], Ertuğrul Altuğ[1], Onur Özalp[2], Semih Korkut[1], Melih Görkem Şensoy[1], Ramazan Güven[1]

[1]Başakşehir Çam ve Sakura Şehir Hastanesi Acil Tıp
[2]Başakşehir Çam ve Sakura Şehir Hastanesi Enfeksiyon Hastalıkları

Background and aim: Introduction: In Turkey malaria is endemic in southeast regions and sporadic in the remaining. The number of malaria patients that admits to our clinic are significantly high. In this study, we aimed to evaluate demographic characteristics and clinical features of the patients with malaria admitted to our emergency department since April 2020.

Methods: Materials-Methods: Our study is a retrospective observational study. The study was conducted on patients diagnosed with Malaria in Training and Research Hospital Emergency Department between April 2020 - August 2022. Epidemiologic, clinical, diagnostic, and therapeutic features of 16 patients with malaria (0 female, 16 male, mean age: 32,12±9,25 years, range: 21-56) followed in our hospital.

Results: Results: Patients who are admitted to emergency department with various symptoms aged over 18 years are included in our study. Mean age of the patients is 32.125 and all of them are male. All of the patients have travel history to the Africa region. All of the patient were hospitalized, one of them was followed up in intensive care unit. None of the patients has a mortal clinical course during follow up. CRP and Procalcitonin levels of all patients were found distinctly high.

Conclusions: Conclusion: As a result, Malaria should be taken into consideration as a diagnosis in emergency department in patients who are admitted to hospital with a fever, gastrointestinal symptoms, travel history to the endemic regions. On the other hand, CRP and Procalcitonin levels can be a guide on the way to diagnosis of Malaria. Key

Keywords: Malaria, Emergency Department, CRP

S- 039

Diagnosis Of Hereditary Angioedema in Patients Applying with Angioedema

Sevilay Biyikli[1], Murside Yayli[1], Mustafa Yasin Okten[1], Gulbahar Guler Orucoglu[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background and aim: Hereditary angioedema, involving the skin, intestinal submucosa and upper respiratory tract; it is an autosomal dominant disease with recurrent attacks of angioedema without pruritus and urticaria. It usually occurs due to C1 esterase inhibitor deficiency. In our case, we aimed to provide information about the diagnosis and management of this disease in the emergency department conditions.

Case: A 62-year-old male patient presented with a sudden onset of swelling of the face and tongue.He stated that he had experienced similar attacks a few more times before, but that it went away on its own without applying to the hospital and without using any medication. There was no additional disease, there was no feature in the family history. On examination, the patient's vital values were normal and there was swelling covering only the left face and left tongue half. There was no uvula edema. Lung sounds were normal bilaterally. Antihistamine and steroid treatment was administered to the patient whose laboratory tests were normal and allergen exposure was suspected, but there was no response to treatment. In the fiberoptic examination performed by an otolaryngologist, mild edema was detected in the larynx and vocal cords. There was no regression or progression in the patient's clinical follow-up in the emergency department. The patient was admitted to the otolaryngology service with the preliminary diagnosis of hereditary angioedema for further examination and treatment.

Conclusions: The diagnosis of hereditary angioedema should be considered in cases of recurrent and unexplained angioedema, unresponsive to antihistamines, not accompanied by urticaria, sometimes developing colic-like abdominal pain as a result of laryngeal or intestinal edema, and a positive family history. It should be kept in mind that administration of adrenaline, corticosteroids, and antihistamines to these patient groups is ineffective and C1 inhibitor concentrate and FFP (Fresh frozen plasma) are life-saving. In addition, airway safety should be ensured in the management of these patients, and the need for tracheostomy should be considered in a situation that would prevent intubation due to possible laryngeal edema.

Keywords: angioedema, hereditary

S- 012

Pnomomediastinum, A Rare Complication Of The COVID-19 Vaccine

Ali Sarıdaş[1], Kübra Demir Çim[1]

[1]Prof. Dr.Cemil Taşcıoğlu Şehir Hastanesi

Background and aim: The Covid-19 pandemic is a new disease that has shaken the world. Different clinical manifestations that cannot be sharply delimited may illuminate the pathogenesis of the disease and lead to new vaccine treatment studies. We aimed to present a Covid-19 vaccinated patient with a rare post-vaccine spontaneous pneumomediastinum and diffuse soft tissue emphysema in the left axillary region and left half of the thorax.

Case: 23 years old, female, known Asthma patient, no chronic medication use, presented with the complaints of shortness of breath and cough, which started 4-5 hours after the first injection of the 3rd dose BNT162b2 COVID-19 vaccine (Pfizer-BioNTech) 2 days ago and lasted for 2 days. Blood pressure: 140/90 Pulse: 130/minute Respiratory Rate: 40/minute, spo2: 95 fever: 36 crp: 33 lymphocytes: 600 wbc: 18.1 neutrophils: 17 thousand. It does not describe weakness, joint pain, loss of taste and smell. On physical examination: There was crepitation with palpation on both sides of the neck. , Sibilan rhonchus present. The patient was treated with bronchodilator and steroid. Computed tomography showed widespread pneumomediastinum extending under the skin. Mediastinal emphysema was present. No mediastinal abscess or specific viral pneumonia was observed. Diffuse soft tissue emphysema was observed in the soft tissues in the left axillary region and left half of the thorax. A pectus excavatus deformity was observed in the anterior thoracic wall. Broad-spectrum parenteral empirical antibiotic treatment for mediastinitis was started in the ward. He was admitted to the ward with the diagnosis of pnomomediastinum subcutaneous emphysema.

Conclusions: Physicians working in the pandemic unit should be prepared for atypical applications; Different examination findings should be kept in mind in terms of COVID-19 vaccine.

Notes (Optional): We recommend regular checks of imaging methods during follow-up in COVID-19 vaccinated patients. Clinicians should keep in mind that vaccine-induced lung injury may occur in patients receiving COVID-19 vaccine.

Keywords: Covid-19 vaccine, pneumomediastinum, subcutaneous emphysema

S- 131

A New Biomarker to Predict Critically Ill Prognosis: The Prognostic Nutritional Index

Müslime Kasa[1], Nazire Belgin Akıllı[1], Fatih Uçar[1], Ramazan Köylü[1]

[1]Konya City Hospital

Background and aim: We aimed to prospectively evaluate the relationship between prognostic nutritional index (PNI) value and prognosis in criticaly ill patients .

Methods: Critically ill patients over the age of 18 were included in the study. Demographic information of patients, vital signs on admission to hospital, background information, routine hemogram and biochemical parameters on admission, GCS, APACHE II,and SOFA, qSOFA score, routine biochemical and hematological parameters were recorded. Albumin and lymphocyte values at admission and PNI ((10*albumin (gr/dl)+0.005*lymphocyte (mm3)) were calculated with the formula. The primary endpoint of the study was in-hospital mortality, the secondary endpoint was development of multiorgan failure

Results: A total of 400 patients were included in the study. Of 400 patients, 248 (62) were male and 152 (38) were female. The mean age was 71(28) years. The mean APACHE II score was 16.82(15), GCS median 11.52(9), SOFA score median 5.31(7), qSOFA median 1.08(2), PNI median 36.51(8). Performance characteristics (area under the curve, sensitivity, specificity, predictive value, likelihood ratios) for estimating PNI in-hospital mortality were calculated. (The cut-off value obtained using the ROC curve for mortality was PNI ≤ 31.02).The area under the curve (AUC) 0.71 95% CI (0.66-0.75) p<0.0001) The sensitivity of the PNI was 68.09 95% CI (59.7-75.7) p<0.0001), while the specificity rate was 69.88 95% CI (63.9-75.4) p<0.0001), +LR 95% CI 2.26 (1.8-2.8) p<0.0001, -LR 95% CI 0.46 (0.4-0.6) p<0.0001, PPV 95% CI 55.2 (49.8-60.5)) p<0.0001, NPV 95% CI 80.1 (75.7-83.8) p<0.0001 was calculated. The PNI was 34.26±34 in the in-hospital mortality group, and 37.70±35 in the survivors (p=000). APACHE II score (HR:1.05(1.009-1.10)), PaO2/FiO2 (HR:0.998 (0.98-0.999)), Systolic blood pressure (HR:1.01(0.99-1.022)), SOFA in in-hospital mortality in a multivariate logistic regression model (HR:1.72(1.49-1.99)), PNI<31.02 (HR:0.30(0.14 -0.63)) were determined as independent indicators. When the group that developed and did not develop MODS was compared; PNI 29.01(9) in the group that developed, PNI 34.01(8) (p=000) in the group that developed.

Conclusions: A low PNI value in critically ill patients is associated with in-hospital mortality, development of multiorgan failure.

Keywords: critically ill patients, PNI, mortality

S- 181

Predictive Value of Base Excess for Mortality in Methanol Intoxication

Ayşe Fethiye Basa Kalafat[1], Salih Fettahoğlu[1], Süreyya Tuba Fettahoğlu[1], Melih Uçan[1], Utku Murat Kalafat[1], Serkan Doğan[1]

[1]kanuni sultan süleyman eğitim ve araştırma hastanesi

Background and aim: Methanol intoxications are among the reasons for collective admission to emergency services, apart from suicidal attempts . In this study, we wanted to investigate the use of Base Excess (BE) by determining its predictive value for methanol-induced mortality.

Methods: In an 8-year retrospective study; All cases with a definite diagnosis of methanol intoxication were included in the study. Cases with in hospital mortality were included in the mortality group. Blood gas and biochemistry parameters of the patients were recorded. ROC and regression analysis were performed for the variables with significant differences between the groups.

Results: In the mortality group, pH, HCO3 and BE were statistically significantly lower, while lactate value was found to be significantly higher. We determined the AUC values as 0.852, 0.855, 0.900 and 0.708, respectively, according to the cut off values of the pH, HCO3, BE, and Lactate. We found that <-23.65 of BE had the highest sensitivity, specificity, and OR (sen:86.4%, spe:89.47%, OR:0.780 [95%CI;0.656-0.929]).

Conclusions: We think that the BE value may be useful for clinicians in assigning priority to patients in collective emergency department admissions due to methanol intoxication.

Keywords: base excess, intoxication, methanol, predictive

S- 072

The usefulness of the CHAMPS Score for risk assessment in patients with acute variceal bleeding at the emergency department

Hakan Aydın[1], Halil Doğan[1], Hazal Yağmur Yalçın[1]

[1]Department of Emergency Medicine, University of Health Sciences Faculty of Medicine, Bakırkoy Dr. Sadi Konuk Training and Research Hospital, Istanbul, Türkiye

Background and aim: Acute variceal bleeding (AVB) is a severe complication of portal hypertension caused by esophageal or gastric varix rupture. We analyzed the usefulness of the CHAMPS score for risk stratification in AVB patients and compared its effectiveness with that of the Glasgow-Blatchford score (GBS) and AIMS65 score.

Methods: In this retrospective observational study, medical records of patients with AVB Between January 2018 and December 2021 were assessed. Computerized hospital records were reviewed, and any patients for whom "esophageal varices with hemorrhage (I85.01)" based on the International Classification of Diseases, 10th revision coding, were initially considered as a discharge code for study selection. Included were patients diagnosed with "variceal bleeding" via esophagogastroduodenoscopy after being admitted to the hospital. Patients who did not undergo laboratory tests were excluded from the analysis. Data on age, sex, hospitalization period, and variables required for each scoring system were recorded. This study's primary endpoint was the CHAMPS score's effectiveness in predicting the need for in-hospital mortality in patients with AVB presenting to the emergency department. The secondary endpoint was the comparative efficacy of the CHAMPS score, GBS, and AIMS65 scores in predicting the need for in-hospital mortality. The area under the receiver operating characteristic curves (AUC) was constructed using cut-off values determined by the Youden Index. P <.05 was considered statistically significant.

Results: A total of 109 patients were included in the study, and the in-hospital mortality rate was %12.8. The performance of the CHAMPS score (AUC=0.84, 95% CI: 0.73-0.94) in predicting in-hospital mortality was significantly superior to the GBS (AUC=0.70, 95% CI: 0.55-0.84; p=0.008), and was similar to AIMS65 score (AUC=0.83, 95% CI: 0.75-0.91; p=0.864). Sensitivity, specificity, PPV, and NPV for in-hospital mortality were calculated as 57.1%, 93.7%, 57.1%, 93.7%, for CHAMPS score, 85.7%, 75.8%, 34.3%, 97.3% for AIMS65 score, and 64.3%, 63.2%, 20.5%, 92.3% for GBS respectively.

Conclusions: The CHAMPS score is a new score that can be used to predict intra-hospital mortality in patients with AVB.

Keywords: CHAMPS Score, Esophageal and Gastric Varices, Glasgow-Blatchford Bleeding Score, AIMS65 Score

S- 053

Progression from nasal congestion to mortality: Intracranial abscess as a complication of sinusitis

Burak Çelik[1], Sercan Eroğlu[2]

[1]Kirsehir Training and Research Hospital, Department of Emergency Medicine
[2]Ahi Evran University, Faculty of Medicine, Department of Emergency Medicine

Arka plan ve amaç: Sinusitis can be defined clinically as an inflammatory response that occurs in the mucous membranes, fluids, or underlying osseous structures lining the nasal cavity and paranasal sinuses.Sinusitis infection can lead to serious and high-mortality complications as it can spread rapidly to orbital and intracranial tissues.Intracranial complications occur as a result of the progression of pathogenic organisms through bony openings and diploic veins.Purulent sinusitis is among life-threatening diseases due to intracranial complications.With early diagnosis and appropriate treatment, mortality due to intracranial complications caused by sinusitis is reduced.In this presentation, we aimed to present a case who received antibiotic treatment for sinusitis and developed intracranial abscess.

Vaka: A 19-year-old male patient, who was treated with amoxicillin/clavulanate and paracetamol on an outpatient basis with a preliminary diagnosis of sinusitis due to nasal congestion and headache complaints, was admitted to the emergency service with complaints of headache, fever, and confusion.It was learned that the patient did not have a chronic disease, immunosuppression, previous operation history, or a drug that he used regularly. On physical examination, the general condition is moderately blurred, non-cooperative, pupillary isochoric, IR+/+ cranial nerve examination is normal, nuchal rigidity is present, and left upper and lower extremity strength is 1/5. Vitals; blood pressure was 110/60 mmHg, heart rate was 110/min, respiratory rate was 17/min, fever was 38.9 C, and oxygen saturation was 95. In complete blood count; leucocytes were 5,360 mm3, 56.1% neutrophils, 23.7% lymphocytes, hemoglobin 13.3 g/dl, platelets 139.000 mm3, Procalcitonin 0.144 ng/mL, CRP 16 mg/L. COVID-19 PCR test negative. CT and MR imaging revealed a shift in the midline, an image compatible with intracranial hematoma or abscess.Abscess drainage was performed after craniotomy in the patient who was taken to emergency operation by neurosurgery.Ekinella Corrodens grew in the tissue culture taken after the surgery in the patient who had no growth in CSF, blood and urine cultures.The patient was given meropenem, vancomycin and metronidazole antibiotherapy.The patient, who was treated in the hospital for 47 days, was discharged with 4/5 muscle strength in the left upper and lower extremities.

Kararlar: CT is useful in the evaluation of complications such as intracranial abscess that may develop due to sinusitis.Magnetic resonance imaging is a method that helps clinicians to evaluate complications such as intracranial abscess.In our patient, intracrinal abscess complication was detected by CT and MRI examinations. Headache and neck stiffness are present in purulent meningitis, and the toxic appearance is accompanied by fever.In our patient, general condition disorder, fever and neck stiffness were also present, and neurological deficit was detected in the patient.It has been reported in the literature that neurological deficits may remain in the continuation of the patient's treatment.Intracranial complications should be kept in mind in patients presenting with sinusitis and headache complaints, central imaging should be performed and early treatment should be initiated in patients with positive findings in physical examination.

Notlar (Opsiyonel): References:1) Erkan, M., & Somdaş, M. (2000). Rinosinüzit komplikasyonları. Van Tıp Dergisi, 7(2), 75-79.2)Gür, Ö. E., Gediz, T., Çetinkaya, E. A., Öztürk, G., & Yılmaz, M. D. (2019). FRONTAL SİNÜZİT ORBİTAL VE İNTRAKRANİAL KOMPLİKASYONU. ENTcase, 5(1), 6-11. 3)Sinüzit Sonucu Gelişen Subperiostal Orbital Apse ve Frontal Epidural Apse: Olgu Sunumu. Turkish Journal of Ophthalmology/Turk Oftalmoloji Dergisi, 43(6). 4)CAN İH. Sinüzit Komplikasyonlar›. İç Hastalıkları Dergisi 2008; 15(4): 188-193

Anahtar Kelimeler: Ekinella Corrodens, Intracranial abscess, Sinusitis, Emergency department

S- 160

RETROSPECTIVE EVALUATION OF CASES WITH CARDIOPULMONARY RESUSCITATION IN THE EMERGENCY DEPARTMENT

Berkan DEMİRCİ[1], Latif DURAN[1]

[1]Ondokuz Mayıs Üniversitesi Tıp Fakültesi Acil Tıp AD. Atakum-SAMSUN

Background and aim: In this study, the cases which underwent cardiopulmonary resuscitation (CPR) in the emergency department of our hospital were examined and the first data were obtained on this subject, it is aimed to contribute to the literature by determining the demographic and clinical characteristics of the patients who underwent CPR, the number and rate of successful CPR, the rate of discharge in patients with spontaneous return of circulation (ROSC) after CPR, neurological recovery results, prognosis and factors affecting survival

Methods: A total of 371 patients were included in this study (between 01.01.2017 and 31.12.2018). Patient data were obtained from patient files in the hospital archive and through the hospital automation system as a retrospective. Patients undergoing CPR; age,gender, place of arrest, arrest rhythm duration of CPR and CPR were grouped according to the result .

Results: : In our study, 53.6% of the cases were men and 46.4% were women. We found the in-hospital cardiac arrest (IHCA) rate to be 75.2%, and the out-of-hospital cardiac arrest (OHCA) rate to be 24.8%. The most common arrest rhythm was asystole (61.7%), while the rate of shockable rhythm (VF/nVT) was 10.8%. Cardiac-induced cardiopulmonary arrest (CPA) rate was 35.6%. While the rate of ROSC after CPR was 36.9% in IHCA cases, it was 33.7% in OHCA cases. In cases with ROSC, 0-24 hour survival rate was 59.7%, 1-30 day survival rate was 32.1%, 1-12 month survival rate was 8.2%. It was determined that 6 (5.7%) of the cases with ROSC in IHCAs and 4 (13.8%) of cases with ROSC in OHCAs were discharged. Neurological recovery according to CPS in 10 patients discharged from the hospital was CPS-1 in 7 patients, CPS-3 in 3 patients, while brain death (CPS-5) occurred in 6 patients with CPR as ROSC.

Conclusions: : In IHCA cases, the rate of ROSC is higher as a result of CPR. While CPR is more successful in patients with coronary artery disease and hypertension as comorbid diseases, CPR success is low in patients with malignancy. Survival and neurologic recovery are better in patients with cardiac-induced CPA.

Keywords: Cardiac arrest, cardiopulmonary resuscitation, emergency department

S- 127

A Rare Case: Type A Wellens Syndrome

Tuncay KUS[1], Umut OCAK[1], Melih YUKSEL[1], Mehmet Oguzhan AY[1], Halil KAYA[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa 16310, Türkiye

Background and aim: Wellens syndrome is known as a pattern of electrocardiographic (EKG) changes, particularly deeply inverted or biphasic T waves in leads V2-V3, that is highly specific for critical, proximal stenosis of the left anterior descending (LAD) coronary artery. It is also called LAD coronary syndrome or widow maker and classified into type A or type B which was first described in 1982 by de Zwaan et al in a subgroup of patients with unstable angina during a pain-free period. Type A Wellens syndrome is characterized by biphasic T wave in leads V2 and V3, whereas type B is characterized by deep T-wave inversion in the same leads. We would like to present a case of type A Wellens Syndrome which requires urgent coronary angiography.

Case: A 53-year-old male patient with no known comorbidities was acknowledged to our emergency department with a history of epigastric pain increased by effort lasting a week and the pain radiated to the back. The patient had a one-pack-per-day smoking history. There was no family history of cardiovascular diseases. EKG showed regular rate and rhythm with biphasic T-wave in leads V1-V6 without ST-segment abnormalities. The Troponin I level of the patient was 1564. We consulted the patient with the departments of cardiology & cardiovascular surgery respectively and then the patient was hospitalized for bypass surgery.

Conclusions: Emergency physicians should keep in mind that Wellens syndrome may be a cause of sudden cardiac death and early detection is vital and immediate coronary angiography and revascularization are required.

Notes (Optional): COI: No conflict of interest

Keywords: emergency department, sudden cardiac death, electrocardiogram, Wellens Syndrome

S- 066

The value of immature granulocyte and immature granulocyte/total granulocyte ratio in predicting the need for surgical treatment in patients diagnosed with small bowel ileus in the emergency department.

Hakan Yaşar[1], Emine Emektar[1], Şeref Kerem Çorbacıoğlu[1], Yunsur Çevik[1]

[1]Ankara Atatürk Sanatoryum Training and Research Hospital, Department of Emergency Medicine, Ankara, TURKEY

Background and aim: Although many biomarkers that can predict the need for surgical treatment of patients with small bowel ileus have been investigated, effective, inexpensive and fast-resulting biomarkers have not been determined. In our study, we aimed to show the value of immature granulocyte/total granulocyte ratio levels in predicting the need for surgical treatment in patients diagnosed with small bowel ileus in the emergency department.

Methods: Our study was carried out as a prospective cohort between 23.11.2021 and 07.04.2022. Laboratory tests were requested from patients with suspected small bowel ileus. Demographic characteristics, comorbidities, treatments, laboratory tests and 1-year survival of the patients were recorded; Comparisons were made in terms of undergoing surgery and 1-year survival. ROC analysis was performed on IG and IG/TG levels between patients who underwent and did not undergo surgery.

Results: A total of 78 patients were included in the study. Surgery was performed in 32 (41%) of these patients, while 46 (59%) were followed up with medical treatment. The number of IGs and the ratio of IG/TG were higher in patients who underwent surgical intervention compared to patients who underwent medical treatment; there was a statistically significant difference ($p<0.05$). In the ROC analysis, AUC for IG number was found to be 0.658; When the best cut-off value was taken as 0.03, Sensitivity was calculated as 56.3% Specificity: 71.7%. There was no significant difference between the surgical and medical treatment groups in terms of 1-year survival for IG number and IG/TG ratio ($p>0.05$).

Conclusions: In this study, where we examined the IG number and IG/TG ratios in patients with small bowel ileus, we showed that these parameters were higher in those who needed surgical treatment. However, the values were not a clinically significant marker and had no effect on 1-year survival.

Keywords: Small intestinal ileus, immature granulocyte, immature granulocyte ratio

S-004

Asessment of Personal Protective Equipments Usage in Hospital Staff whilst SARS-CoV-2 Pandemic

Hasan Yeşilağaç[1]

[1]Başkent Üniversitesi Tıp Fakültesi Dr.M.Turgut Noyan Uygulama ve Araştırma Merkezi

Background and aim: After more than a year, COVID-19 pandemic is still among top of the challenges of healthcare institutions, mostly in faced and treated these patients in front lines, a source of SARS-CoV-2 both for themselves and others. In our study, we aimed to research the relation the PCR to choices and durations in usage of personal protective equipments

Methods: This is a Likert Scale survey study researched the personal protective equipments choices and frequency of changing among hospital staff, released to all hospital staff via by SurveyMonkey, voluntarily participated to reply on February 1 to 12, 2021, following approved by Baskent University Institutional Review Board for Medicine and Health Sciences, KA20/450. Validity and reliability tests were performed prior the study.Mann-Whitney U test, Fisher's exact test and significance test of the difference between two percentages were used in biostatistical analyses on SPSS v25.0

Results: There was a total of 338 hospital staff included and answered all questions. Mean age (+sd) was 31.11± 9.86 years old. Positive PCR was found in physician (17%), nurse (39.4%), paramedics (33.3%), nurse asisstant (28.2%) and p was 0.020. Tablo 1 demonstrates a part of the Cov-19 personal protective equipment changing frequency of the hospital staff to PCR studied. When foot wears asked, medical slippers had a significant difference (p=0.012) as in 41.3% PCR positive to 58.7% PCR negative, in spite of boot or closed shoes, even boot cover.

Conclusions: The hospital staff' protective equipments and frequency of changing could be a key on challenge of the transmission, especially along unexpected results, however, also the steps of the process contributed in putting on and off would be studied in further detailed research with evidence.

Keywords: SARS-CoV-2, personal protective equipments. hospital staff

S- 124

toxic myocarditis and acute heart failure due to scorpion sting

Mehmet Gürkan Özün[1], Burçin Akgün[1]

[1]Acil Tıp Kliniği, Antalya Eğitim ve Araştırma Hastanesi, Antalya, Türkiye

Background and aim: Although scorpions live all over the world, there are about 11 species in our country. Because of the frequent occurrence of scorpion stings in the south and southeast regions, it constitutes an important health problem. In this case, we presented a case with toxic myocarditis and accompanying pulmonary edema due to scorpion sting.

Case: 27 years old female patient applied to the emergency service of another health center with the complaints of chest pain, cold sweating and shortness of breath after a scorpion sting in the lower part of the right scapula 3 hours ago .When the patient applied to our emergency department, his general condition was poor and he was inclined to sleep. The patient had a history of ventriculoperitoneal shunt due to hydrocephalus. Vital findings on admission; TA: 136/98 mmHg, pulse: 100 beats/min, respiratory rate: 30/min, and SO2: 84%. On physical examination, there was an erythematous lesion with a diameter of 1x1 cm in the lower part of the right scapula. Pink foamy sputum was coming from the mouth of the patient. There was 114 beats/min sinus tachycardia in his ECG and there was no ST-T wave change. BŞ: 152 mg/dl, high sensitive troponin t(hST) level in laboratory examinations: 498 ng/L CK:4136 U/L, CK-MB:91 U/L, White Blood Cell: 19500/mm3 , Hgb: It was measured 13.4 g/dl, Platelet: 479000/mm3. Other laboratory parameters were normal. EF: 20%, left ventricular systolic dysfunction, minimal pericardial effusion. The patient was hospitalized in the intensive care unit with the diagnosis of toxic myocarditis and acute heart failure. It showed a decreasing trend in the /L shape.

Conclusions: Since scorpion sting cases are common in our country and the type is not known exactly, it should be assumed that every scorpion sting is poisonous. These cases should be followed closely and antivenom should be given in the presence of systemic findings. It should be kept in mind that complications such as myocarditis, acute heart failure, and pulmonary edema, which may progress with a mortal course, may develop, and patients should be evaluated well in this respect.

Notes (Optional): scorpion

Keywords: scorpion, lung, heart, failure

S- 040

Hypoglycemia Induced Loss of Conciousness in Patients Presented to the Emergency Department

İlhami Demirel[1], Mehmet Özgür Erdoğan[2]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye
[2]University of Health Sciences, Bakırköy Sadi Konuk Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Background and aim: The aim of the study was to determine the features of hypoglycaemia-related admissions to the Emergency Department (ED) and to predict blood glucose level associated with loss of consciousness.

Methods: A total of 423 adult patients admitted to our ED with hypoglycaemia-associated signs and symptoms were enrolled retrospectively. The patients were divided into two groups: those who presented with loss of consciousness and those presented with neuroglycopenic symptoms but no loss of consciousness.

Results: The mean blood glucose level of unconscious patients was 32.57 ± 8.92 mg/dL, while that of the conscious patients was 44.90 ± 3.60 mg/dL. Receiving operator characteristic analysis revealed a cut-off blood glucose level of 41.5 mg/dl, with 95% sensitivity and 89.2% specificity, for determining loss of consciousness.

Conclusions: Our findings indicate that the blood glucose level of ≤41.5 mg/dl resulted in loss of consciousness in patients who admitted to the ED with hypoglycaemia-related signs and symptoms.

Keywords: Glucose, hypoglycemia, loss of conciousness

S- 145

Atipik Prezentasyonlu İnme Vakası, Olgu sunumu

Aysun Bozok Çavdar[1], Mustafa Keşaplı[1], Aslı Göğebakan[1], Esra Sönmez Üçkapı[1], Mahir Erman[1]

[1]SBÜ. Antalya Eğitim Araştırma Hastanesi Acil Tıp Anabilim Dalı

Arka plan ve amaç: İnme beyine giden kan akımının bozulması sonucu oluşan bir hastalıktır. Temel mekanizma iskemi veya hemoraji kaynaklıdır. Bütün inmeleri %87 'si iskemi kaynaklıdır. Özellikle hastane öncesi inme ölçekleri kullanılarak ön tanı belirlenebilir. Acil serviste ise hastaların klinik prezentasyonları inme taklitçilerinden hızla ekarte edilmeli ve başlangıç zamanı, en son iyi görülme anı, belirlenmelidir. Trombolitik uygulama kararı hızlı ve doğru şekilde verilmelidir. Bu olguda yaygın olmayan klinik prezantasyonla da karşılaşabileceğimiz inme hastalarının olabileceğini sunmayı amaçladık.

Vaka: Deniz kenarında bulunduğu belirtilen hastanın, kimlik bilgilerine ve yakınlarına ulaşılamadı. Bilinci kapalı, spontan göz açıklığı olan hastanın ağrılı uyarana yanıtı yoktu. Hastanın acil servise geliş; parmak ucu kan glukozu 110 mg/dl ,arteryal tansiyonu : 120/80 mmHg, nabız : 90 atım /dk, vücut ısısı: 36.5, solunum sayısı : 20/dk, oksijen saturasyonu oda havasında %93 ölçüldü. Ayrıntılı anamnez alınamayan hastanın sistemik muayenesi doğal gözlendi, harici darp izine rastlanmadı. Ön planda narkotik madde alımı, postiktal epilepsi nöbeti düşünülen hastanın beyin bilgisayarlı tomografi görüntülemesi normal; EKG normal sinüs ritminde gözlendi. Venöz kan gazı analizinde Ph: 7.36 hemoglobin : 14 g/dl karboksi hemoglobin : %3 laktat : 1.5 mmol/l ölçüldü. Hasta gözlem altındayken gelişinin 2. Saatinde bilinci açıldı. Olay anını hatırlamayan hastanın kimlik ve iletişim bilgileri kendisi tarafından verildi. Ayrıntılı muayenesinde motor, duyu defisiti, lateralizan bulgu veren kas gücü kaybı, ataksi gözlenmedi. Yapılan beyin diffüzyon manyetik rezonans görüntülemesinde akut diffüzyon kısıtlılığı gözlenen hastaya inme zamanı belirlenemediği için trombolitik uygulanması uygun görülmedi. İkili antiplatelet tedavi başlanan hastanın nöroloji servisine yatışı yapıldı.

Kararlar: İnme mortalite ve morbiditesi yüksek olan acil servislerde sık karşılaşılan bir hastalıktır. Hastane öncesi inme ölçeklerinde kullanılan yaygın prezentasyonların aksine inme için bilinç bozukluğu, senkop gibi yaygın olmayan semptomlarında olabileceği unutulmamalıdır.

Anahtar Kelimeler: iskemik inme, atipik prezentasyon, inme semptomları

S- 056

The Importance of Early Diagnosis and Treatment in the Emergency Department in Cases of Necrotizing Fasciitis

Dilek Demir[1], Özgür Söğüt[1], Hüseyin Ergenç[1]

[1]Haseki Eğitim ve Araştırma Hastanesi

Background and aim: Necrotizing fasciitis (NF) infects subcutaneous tissue and fascia, progresses rapidlyand is characterized by inflammation, thrombosis, and necrosis. Necrotizing infection is avery rare serious bacterial soft tissue infection that can infect all parts of the body, but mostcommonly involves the extremities (often the lower extremities). These infections arecharacterized by high mortality and clinically fulminant. Early surgical intervention andantibiotherapy are the most important factors affecting the mortality of the patient. Theincidence of necrotizing fasciitis varies between 0.3-5 cases per 100,000 population. Overallmortality has been reported between 15-52%. Delaying first surgical intervention can increasethe mortality up to 71%.

Case: A 67-year-old male presented to the Emergency Depatment with high fever andredness on the sole of the right foot. His past medical history includes hypertension, diabetes,and chronic renal failure not requiring dialysis. On admission, he was conscious and oriented, hehad normal blood pressure (130/70 mmHg), high pulse rate (119/min) and high temperature (38.2C). On physical examination, there was widespread redness and increased temperature on thedorsal right foot. A necrotic appearance was observed in the 5th toe of the right foot. In theperipheral artery examination, distal pulses were detected. On the X-ray radiographs, gasshadows that did not extend to the tibia were observed around the 4th and 5th toes of the rightfoot. It was evaluated in favor of necrotizing fasciitis. İn conclusion, our final diagnosisappears as necrotizing fasciitis requiring surgical debridement and antibiotherapy. We started iv ampicillin sulbactam and ciprofloxacin as initial treatment and thepatient was taken to emergency operation by the orthopedics clinic. He was underwent 5thfinger amputation and, methylene-resistant staphylococcus aerius, enterobacter cloace andgranulicatella adiacens were grown in the abscess and tissue culture taken during theoperation. His antibiotics regiment has changed as Meropenem + vancomycin + clindamycintreatment but the patient's clinic did not improve, and a fourth finger amputation wasperformed as the second operation..After the second operation ,the patient has recovered welland was discharged home.

Conclusions: As stated in the literature, NF is a very rare disease that rapidly worsens within hours and has high mortality. We can reduce the risk of mortality with early aggressive surgical debridement and intravenous antibiotic therapy.

Keywords: emergency, necrotizan faciit, enfection

S- 028

Suspicious Case of a Body packer

Orçun Atay[1], Fatih Selvi[1], Günay Yıldız[1], Cihan Bedel[1]

[1]Department of Emergency Medicine, Health Science University, Antalya Training and Research Hospital, Antalya, Turkey

Background and aim: Drug trafficking by body-concealment first entered the literature some 50 years ago and is a growing serious problem internationally. Body packers often inject illicit drugs including roin, cocaine, marijuana and other marijuana derivatives by mouth or in the rectum, vagina, bowel, ear, etc. They fill them by hiding them inside the anatomical holes. Obstruction, perforation or even death are the common complications encountered when packages are ruptured because the dose contained in them can exceed the toxic dose for humans by several times. We present an asymptomatic body packer case diagnosed with a detailed history, physical examination, and radiological findings and treated effectively with conservative measures.

Case: The 42-year-old man was brought to the Emergency department by airport police on suspicion of carrying illegal drugs. He was detained in the airport following some relevant piece of information. It was learned that the patient had no active complaints and no additional disease. Vital signs were stable. In the examination of the patient, the bowel sounds were low when listening in the four quadrants of the abdomen, there was no defense and rebound, it was slightly distended. His abdominal radiograph revealed striking features of multiple well circumscribed similar sized elongated radiopaque shadows with a thin peripheral rim of lucency. The patient was suspected to be carrying drugs at this stage and was given an enema and oral laxative to speed up the passage. The patient was followed up conservatively. He was examined frequently and his general condition was evaluated. As it was learned in the 12-hour follow-up, it was learned that 100 drug (Paste Marijuana) capsules were extracted with defecation. The patient was discharged from the emergency department when no capsule image was found in the control X-ray.

Conclusions: It should be kept in mind that patients presenting to the emergency department with suspicious behavior, patient may be illegal package carriers, even if they do not have active complaints.

Keywords: Body packer, Emergency department, marijuana, Drug smuggling

S- 061

COVİD-19 HASTASINDA MORTAL SEYREDEN ORBİTAL MUCORMUKOZİS

Gizem Akçın[1], Fatih Selvi[1], Göknur Öztürk[1]

[1]Acil Tıp Kliniği, Antalya Eğitim ve Araştırma Hastanesi, Antalya, Türkiye

Arka plan ve amaç: Mukormikoz primer olarak mukorales grubu fungusların neden olduğu invaziv fungal bir hastalıktır.Mukormikoz nadir görülen, sıklıkla hızlı ilerleyen, erken tanısı ve tedavisi yapılmazsa ölümlesonuçlanabilen fırsatçı bir mantar enfeksiyondur. Genellikle bağışıklık sistemi baskılanan veyakontrolsüz diyabeti olan hastalarda görülür .Tanısı dokuda septumsuz hiflerin görülmesiyle konulur ve kültürle tür ayrımı yapılır. Altta yatanhastalığın düzeltilmesi, agresif cerrahi debritman ve sistemik antifungal tedavisinin esasını oluşturur .Bu olguda bilinen diabet hastalığı olan ve COVİD tedavisinde pulse steroid tedavisi alan hastadagelişen retroorbital abse, osteomiyelitin eşlik ettiği mukormikoz olgu sunumundan bahsedilecektir.Mukormikozda tedavinin başarısı, tanının erken konulabilmesi ve tedavinin erkenbaşlanmasıyla yakından ilişkilidir. Tedavisinde ise tüm nekrotik dokular debride edilmeli vesistemik antifungal kullanılmalıdır.

Vaka: Atmış bir yaş kadın son yirmi gündür sol gözde görme kaybı, yoğun kemozisi mevcut ve gözdışarıya protrüde olarak görüldü.Fizik muayenesinde, ışık refleksi yok, göz hareketleri her yöne kısıtlı ve hiperemi mevcuttu.Özgeçmişinde kronik hastalığı diabetes mellitus, hipertansiyon, kronik kalp yetmezliği, morbidobezitesi mevcuttu. Sigara ve alkol öyküsü ve madde bağımlılığı yoktu.Acil servis muayene odasında yapılan değerlendirmesinde; 40 gün öncesinde covid pnömonisisebebiyle dış merkezde 10 günlük pandemi servisi yatışı mevcut olduğu, hastanede takip edildiği süreiçerisinde pulse steroid tedavisi aldığı tespit edildi. 23 gün öncesinde sol gözde şişlik, öksürük, balgamşikayetiyle tekrar dış merkez başvurusu olan hasta evde izole takip edilmiş ve takiplerinde sol gözdegörme kaybı gelişip , ödemi artıp göz dışa protrüde olunca hasta acil servise tekrar başvurmuş.

Kararlar: Literatürdeki vakalar incelendiğinde tedavide agresif cerrahi tedavi ve sistemik antifungal kullanımınarağmen bizim hastamızda da görüldüğü gibi hastalardaki immun süpresif tablo ve komorbitdurumlar mortal sonuçlar doğurabilmektedir.

Anahtar Kelimeler: covid19, ORBİTAL, MUCORMUKOZİS

S- 117

Comparison of factors affecting prognosis in patients with pulmonary thromboembolism

Sinan Yıldırım[1]

[1]Çanakkale Mehmet Akif Ersoy Devlet Hastanesi

Background and aim: Pulmonary thromboembolism (PTE) is an acute, occlusive disease with high mortality. To date, many studies have been conducted on the factors affecting mortality in PTE.Our aim in this study is to compare the seasonal, hematological and clinical factors that may affect the mortality of patients diagnosed with PTE, and to reveal the independent effects of these factors.

Methods: Patients who underwent spiral computed tomography (CT) and Spiral CT pulmonary angiography examinations with the preliminary diagnosis of PTE at the Ministry of Health Ankara Dışkapı Yıldırım Beyazıt Training and Research Hospital between January 1, 2009 and June 31, 2012 were included in the study.

Results: Of the 541 patients included in the study, 307 (56.7%) were female. The mean age was 64.74 ± 15.79 years and the range was between 18-93. Mortality was observed in 35 (6.5%) patients within 3 months, either in hospital or out of hospital. When the hospital admissions were examined, 187 (36.4%) were the most frequent admissions during the winter months, and when the effect of meteorological variables on mortality was compared, it was observed that low atmospheric pressure values were statistically significant in prognosis (p:0.02). Age, gender, involved vessel branch and serum d-dimer levels had no effect on prognosis, and the prognosis of patients with high Wells score was found to be statistically significantly higher (p<0.001).The best cut-off value of the MPV test was 8.45, the accuracy rate in determining the prognosis was 58.4% (OR: 3.364, 95%CI: 0.532-0.740, p: 0.002), the best cut-off value of the RDW test was 15.55 the accuracy rate in determining the prognosis according to was found to be 69.0% (OR:4.514, 95%CI:0.517-0.747, p<0.001).As a result of univariate analysis, all parameters with p values below 0.25 were compared with multiple logistic regression analysis, when MPV>8.45 (p:0.004), RDW>15.55 (p<0.001), RV/LV>1 (p:0.004) and hypotension (p<0.001) was found to be significant parameters in predicting prognosis.

Conclusions: In our study, low atmospheric pressure, high Wells score, high MPV and RDW values, hypotension and RV/LV>1 were the poor prognostic criteria.

Keywords: MPV, RDW, Prognosis, Pulmonary thromboembolism

S- 92

A rare case in a patient who presented with facial swelling: pneumomediastinum

Yavuz OTAL[1], Huriye YÜRÜK MISIRLIOĞLU[1], Merve TOPAL[1]

[1]Ankara City Hospital, Ankara

Background and aim: Although the diseases are the same, we see presentations that vary from patient to patient, reminding us of a famous quote by Hippocrates 'There is no disease, but the patient.' In this case, we would like to present to you that a disease diagnosed by all of us, although not very common, presents with a very different clinic, and recommend that we keep our perceptions open all the time.

Case: A 57-year-old male patient was admitted to the emergency department with facial swelling. The patient, who had a history of lung cancer and lobectomy, had vital signs at admission: blood pressure: 123/96 mmHg, heart rate: 88/min, respiratuary rate: 16/min, fever: 36.8 degrees and SO2: 92%. The patient's complaints started in the last 3 days and the swelling gradually progressed from the neck to the face. The patient had no additional complaints or shortness of breath. In the physical examination, it was observed that the patient had swelling in the lower eyelid and face. On palpation, crepitations were detected on the face, neck and anterior chest wall. Diffuse subcutaneous emphysema was found in the X-ray. Thereupon, thorax CT was planned for the patient. Thorax CT 'Trachea and both main bronchi are open. Right upper and left lower lobes were not observed (operated?). No signs of active infiltration were observed in the lung parenchyma areas. A fine pneumothorax was observed in the basal right lower lobe. Widespread subcutaneous emphysema and pneumomediastenum were observed in the cervical region, bilateral upper extremities, and thorax'. The patient was consulted to the thoracic surgery department and admitted to the wards. The patient who underwent pectoral fasciotomy in the service was discharged from the service after 4 days of follow-up.

Conclusions: Patients with pneumomediastinum mostly present to emergency services with complaints of shortness of breath and chest pain and are diagnosed. Although spontaneous pneumothorax and pneumomediastinum are seen frequently in malignancy patients, the fact that this patient was seen with only facial swelling without causing shortness of breath shows once again that the presentation of the disease is not specific to the disease but to the patient/person.

Keywords: subcutaneous emphysema, pneumomediastinum, facial swelling

S- 168

International Smuggling of Illicit Drugs by Body Concealment at a Tertiary Hospital in Istanbul

Onur Kaplan[1], Özgür Söğüt[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Background and aim: The international drug trade has recently used new and advanced methods for smuggling illicit substances. The smuggling of illicit drugs by internal concealment is a challenging method and individuals engaged in this process are called body packers or mules. Body packers smuggle illicit drugs either by swallowing drug-filled packets or concealing them in body cavities, specifically the rectum and vagina. This study aimed to assess the demographic features and outcomes of body packers admitted to a referral center in Istanbul.

Methods: Data were prospectively evaluated from January 2017 to December 2019 from suspected body packers who were referred to the emergency department (ED) of a tertiary-care university by Istanbul Airport narcotics police due to suspected concealment of illicit drugs. Cases were taken to the ED while in the custody of narcotics police to ensure close follow-up. The analyzed data included demographic characteristics, treatment, and outcome, as well as clinical images, which included abdominal X-rays and non-enhanced abdominal computed tomography (CT) scans.

Results: Eighty-one cases were identifed and included in this study. Of these, 71 subjects were confirmed to be body packers by radiological methods, while the others were immediately discharged. The 15 women and 56 men had a mean age of 35 years (range: 19–59 years). The most common nationality of the body packers was Nigerian (n = 24), followed by Turkish (n = 18) and South African (n = 5). Cocaine was the most commonly smuggled packet (n = 45), followed by hashish (n = 8), and heroin (n = 8). The mean number of packets ingested was 78.5 (range = 2–303) and the mean weight was 885.6 grams (range = 20–2200). The mean duration of hospitalization was 26.5 hours (range = 2–112). All body packers were conservatively managed using laxatives or watchful waiting. No cases required surgical retrieval of packets. Also, no deaths or complications occured.

Conclusions: Abdominal radiography and CT are useful tools for the evaluation of suspected body packers. The use of improved packaging material by smugglers and complications due to surgery and endoscopy make the conservative approach preferred.

Keywords: Body packers, conservative, cocaine, hashish, heroin

S- 013

Evaluation Of The Relationship Between GPS, CURB-65, PSİ, PNİ, SII, q-SOFA Scores In Predicting Mortality Due to Covid-19 Elderly Patients

Gizem Çaltepe[1], Dilay Satılmış[3]

[1]Eyüpsultan Devlet Hastanesi
[2]SBÜ Haydarpaşa Numune Eğitim ve Araştırma Hastanesi
[3]SBÜ Sultan Abdülhamid Han Eğitim ve Araştırma Hastanesi

Background and aim: COVID-19, which has affected the whole world in a short time, is progressing with higher mortality rates in elderly patients with comorbid disease. The aim of our study is to investigate the effectiveness of CURB-65, Pneumonia Severity Index (PSI), Prognostic Nutritional Index (PNI), Glasgow Prognostic Score (GPS), Systemic Inflammation Index (SII) and quick SOFA (q-SOFA) scores in predicting mortality in patients aged 65 and over with a diagnosis of Covid-19.

Methods: In our study, patients aged 65 and over who applied to the Emergency Medicine of Haydarpaşa Numune Training and Research Hospital, between 11.03.2020 and 31.12.2021, were retrospectively analyzed. demographic characteristics, vital signs, blood glucose level at the fingertips at the time of admission, consciousness at admission, detected lung imaging pathologies, laboratory examinations performed at the time of emergency service admission, CBC, albumin, BUN, Creatinin, CRP, D-dimer, ferritin, procalcitonin, calcium, sodium, ALT, AST, pH, PaO2, lactate, additional diseases, place of residence and in-hospital mortality information were scanned and recorded.CURB-65, PSI, PNI, GPS, SII, q-SOFA scores were calculated with the recorded data. The patients included in the study were divided into two groups, with and without in-hospital mortality, and the effectiveness of the above-mentioned parameters in predicting mortality was compared.

Results: Of the 261 patients included in the study, 156 (59.8%) were male and 105 (40.2%) were female, with a median age of 74 (IQR: 69-80). In our study, the in-hospital mortality rate was calculated as 29.1%. When the cut-off value of GPS was accepted as >0.5, the sensitivity in predicting mortality was 89.5% and the specificity was 27.0%. When the cut-off value of the PNI was ≤30.10, the specificity in predicting mortality was 85.4%, and the sensitivity was 46.1%. Sensitivity was 88.2% and specificity was 55.7% in predicting mortality when PSI was>96.5. Negative predictive values of scoring systems for predicting in-hospital mortality were 86.2% in GPS, 79.4% in PNI, 92.0% in PSI, and 81.4% in CURB-65.

Conclusions: Compared to the difficulty in calculating the PSI score, GPS values to be calculated in a short time in the emergency department density can predict the prognosis of patients aged 65 and over with Covid-19 pneumonia.

Keywords: Albumin, Covid-19, C-reactive protein, pneumonia

S- 197

Minör Kafa Travmalı Pediatrik Hastaların Travmatik Beyin Hasarını Öngörmede S100 Proteini Ve Fraktalkinin Yararlılığı

Süleyman Gök[1], Ali İhsan Kilci[2], Hakan Hakkoymaz[2], Muhammed Semih Gedik[2], Ömer Faruk Küçük[2]

[1]Acil Tıp Bölümü, Elbistan Devlet Hastanesi, Kahramanmaraş/Türkiye
[2]Acil Tıp Anabilimdalı, Kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi, Kahramanmaraş/Türkiye

Arka plan ve amaç: In this study it was aimed to demonstrate the effectiveness of S100B protein levels which are biomarkers related to central nervous system, and fractalkin levels, which are known to play a role in inflammation processes in prediction trauma induced brain damage.

Yöntemler: Patient aged 2 to 18 years who came to the emergency department due to minor head trauma and underwent brain ct were included in our study. These patients were divided into two groups according to the presence of leasions on CT. It was investigated whether there was a relationship between the two groups, according to the causes of trauma, symptoms at presentation and the level of serum s100b and FCN according to the lesions detected in CCT.

Sonuçlar: The average age of the study is 7.5 (İQR 9) years and 77.5% is male. The distinction between age, sex, and duration of hospital stay for brain lesions or without lesions is not significant. (p>0,05). The other symptoms including Vomiting, retrograde amnesia, loss of consciousness, confusion, post traumatic amnesia is significantly higher in patients with brain lesions (p<0,05). Patients with lesions on BCT have significantly low Glassgow coma score. (p<0,05). Patients with lesions on BCT have a significantly high S100B and FKN levels. (p<0,05). S100B area under the curve (CUA) 0.700 sensivity is 55%, spesificity is 87.5%. FKN CUA 0,785, sensitivity is 62.5% specifisity is 85%.

Kararlar: As a result, the child patients with BCT lesions from minor cranial trauma levels for S100B and FKN levels are significantly higher and can be a criteria for BCT usage in emergency medicine. Studies involved in FKN level are needed for furture research.

Anahtar Kelimeler: "Çocuk", "Fraktalkin", "Minör kafa travması", "S100β proteini"

S- 215

The Reliability of an Artificial Intelligence Tool, 'Decision Trees', ın Emergency Medicine Triage

Alp Giray Aydın[1], Oktay Eray[3], Ali Vefa Sayraç[5], Alten Oskay[4], Ümit Deniz Uluşar[2]

[1]Sbü İstanbul Şişli Hamidiye Etfal Eğitim Ve Araştırma Hastanesi
[2]Antalya Akdeniz Üniversitesi Mühendislik Fakültesi Bilgisayar Mühendisliği
[3]Bandırma 17 Eylül Üniversitesi Tıp Fakültesi Acil Tıp Ana Bilim Dalı
[4]Pamukkale Üniversitesi Tıp Fakültesi Acil Tıp Ana Bilim Dalı
[5]Antalya İl Sağlık Müdürlüğü Acil Sağlık Hizmetleri Daire Başkanlığı

Background and aim: Overcrowding is a challenge for emergency departments throughout the world. Triage systems categorize the patients based on medical emergencies in order to avoid the malpractices. The present study aimed to test the validity of an artificial intelligence tool, 'Decision Trees', in emergency medicine triage

Methods: This prospective, cross-sectional, clinical study was conducted in an emergency department of a tertiary care hospital. A total of 1999 patients over 18 years were included into the study. The triage stuff were trained before the study with the Australasian Triage Scale. Two independent observers rate the ultimate triage category of study patients. A new algorithym by 'Decision Trees' was constructed at the end of the study.

Results: The mean age of the study patients were 41.1±17,2 and 49.1 % of them (n=981) were male. There were 867 patients (43.3%) with triage category of five and 14 (0.7%) patients with triage category one. The most common clinical descriptors of the patients were minimal pain with no high risk features 20.5% of them (n=409) and minor symptoms of low risk conditions 18.1% of them (n=362). There was an excellent consistency between two independent observers (kappa value: 0.997. The new algorithm by 'Decision Trees' rated wrong in only one patient. The accuracy rate was 99.9%. The consistency between ATS and 'Decision Trees was excellent (kappa value: 0.999). There was average consistency between physicians and paramedics. (kappa value: 0.541).

Conclusions: Decision trees as an artificial intelligence model should be used for producing practical triage algorithms as a decision support tool in emergency departments.

Keywords: emergency department, triage, artificial intelligence, decision trees

S- 049

The Relationship Of Hemoglobin (Hb) - Red Blood Cell Distribution Wıdth (RDW) Ratio (HRR) With Prognosis In Patients With Serious Pneumonia In The Emergency Department

Birsen Ertekin[1], Tarık Acar[1]

[1]Department of Emergency, University of Health Sciences, Beyhekim Training and Research Hospital, Konya, Turkey

Background and aim: Anemia is a common finding in hospitalized community-acquired pneumonia (CAP) patients and is closely associated with mortality and prognosis. It has also been stated that high Red Blood Cell Distribution Width (RDW) value may predict short-term adverse outcomes in these patients. Therefore, in our study, the relationship between the ratio of Hemoglobin (Hb) to RDW (HRR) and prognosis was investigated in patients with severe pneumonia who applied to the emergency department (ED).

Methods: A total of 121 patients diagnosed with severe CAP in the ED and hospitalized in the intensive care unit (ICU) were analyzed retrospectively. HRR levels were calculated using Hb and RDW values obtained from routine whole blood analysis at the time of admission to the ED. Hb, RDW and HRR levels were compared between patient groups who died, who were survived, who needed and did not need a mechanical ventilator (MV), with and without vasopressor support, with a hospital stay of ≤10 days and >10 days. In addition, ROC analysis was performed to determine the value of these three parameters in predicting mortality, and their sensitivity and specificity were calculated.

Results: HRR levels were higher in surviving patients who did not receive MV and vasopressor support, compared with those who died and received MV and vasopressor support (respectively, 0,87±0,17, 0,87±0,20, 0,83±0,19, 0,62±0,14, 0,73±0,18, 0,61±0,15, for all p<0,001).However, there was no significant difference between HRR and hospital stay (p=0.64). While the HRR cut-off value in predicting of mortality was 0.719, the sensitivity was % 84.8 and the specificity was % 83.1 (AUC:0,865, p<0,001).

Conclusions: HRR levels calculated at the time of admission to the ED is a predictor associated with prognosis and mortality in patients with severe pneumonia.

Keywords: Hemoglobin, Red cell distribution width, emergency department, mortality, prognosis

S- 035

A RARE COMPLICATION AFTER ANTERIOR LUMBAR INTERBODY FUSION; GIANT RECTUS SHEATH HEMATOMA

Cüneyt Arıkan[2], Güner Yurtsever[2]

[1]İzmir Atatürk Training and Research Hospital, Department of Emergency Medicine, İzmir, Turkey
[2]Department of Emergency Medicine, Izmir Atatürk Training and Research Hospital, Izmir, Turkey

Background and aim: Anterior lumbar interbody fusion (ALIF) is a commonly performed procedure in lumbar spine surgery. The incidence of vascular complications after the procedure ranges from 0% to 15.6%. Rarely, abdominal wall hematoma may occur as a result of rupture of the abdominal epigastric arteries.

Case: A 27-year-old female patient presented to the emergency department with complaints of high fever and abdominal pain. His general condition was good, he was conscious, his vital signs were stable. It was learned that he had been operated at an other center with an ALIF method 3 days ago for L5/S1 hernia. There was tenderness and swelling on the left anterior side of the anterior abdominal wall. In his examinations, Hb:9 g/dl, thrombocyte: 203.000 cells/ml, INR: 1,11. After the last Hb value, which was checked in an external center, was 11,4 g/dl in the postoperative examinations, and the patient was taken with contrast-enhanced abdominal CT with the suspicion of bleeding. A giant rectus hematoma was seen on CT. The patient was consulted to general surgery and interventional radiology. He was discharged after supportive treatment in the service.

Conclusions: Rectus sheath hematoma is a rare condition and is often misdiagnosed, leading to unnecessary surgical exploration. It can be potentially fatal in elderly patients and a prompt diagnosis is essential. Abdominal CT is recommended for diagnosis. If the patient is stable, supportive treatment and follow-up are recommended. Our patient was discharged because there was no active bleeding and his complaints regressed. Rectus hematoma may accompany acute appendicitis, perforated ulcer, ovarian cyst torsion, intestinal obstruction, tumor and pregnancy-related conditions (degenerate leiomyoma, ablas placenta, uterine rupture). It may occur after a surgical procedure, as in our patient. In this case report, we wanted to draw attention to the consideration of rectus hematoma in cases of low Hb and abdominal swelling or ecchymosis in a patient who had an anterior abdominal wall approach. Conservative management of these patients is possible with the exclusion of other conditions that require surgery, rapid diagnosis and treatment in the emergency department.

Keywords: rectus sheath hematoma, Abdominal pain, anterior lumbar interbody fusion

S- 105

EVALUATION OF DIAGNOSTIC EFFICIENCY OF BEDSIDE CARDIAC ULTRASONOGRAPHY PERFORMED BY EMERGENCY SPECIALIST

İbrahim Halil Toksul[1], Mustafa Keşaplı[2], Akkan Avci[3], Ramazan Güven[1]

[1]Başakşehir Çam ve Sakura Şehir Hastanesi
[2]Antalya Eğitim ve Araştırma Hastanesi
[3]Adana Şehir Hastanesi

Background and aim: Introduction: In emergency medicine, ultrasound is frequently used in the diagnostic and therapeutic procedures and evaluation of treatment of critically ill patients simultaneously, due to its bedside applicability, rapidness and inexpensive cost.Aim: The competence of emergency physician in focused cardiac ultrasound evaluations and the success of diagnosing cardiac diseases were evaluated in a patient group presenting to the emergency department with complaints of non-traumatic chest pain and shortness of breath.

Methods: Materials and Methods: In this study, we included patients with complaints of chest pain and shortness of breath and underwent cardiac ultrasound performed by emergency physician. Then patients were evaluated by a cardiologist. The diagnoses made by the emergency physician were compared with the diagnoses made by the cardiologist.

Results: Results: A total of 303 patients were included. The diagnoses made by the emergency medicine specialist and cardiologist as a result of the evaluation was recorded as: 56.7% vs 52.10% for acute coronary syndrome, 29.70% vs 31.60% for congestive heart failure, 3.6% vs 3.30% for pulmonary embolism, 2.1% vs 2.10% for hypertensive pulmonary edema, 1.9% vs 2.10% for pericarditis, 0.60% vs 1.30% for aortic dissection.

Conclusions: Conclusion: It was determined that focused cardiac ultrasound performed by emergency physician was sufficient in terms of accuracy of findings and diagnosis, and played an important role in excluding or including fatal diagnoses and conditions. The success rates of emergency physician can be further increased with long-term and comprehensive training programs.

Keywords: Emergency Medicine, focused cardiac ultrasound, bedside

S- 058

Retrospective Comparison Of The Lp Results Of Patients Who Was Done Wıth Prediagnose Of Meningitis

Kemal Şener[1], Ertuğrul Altuğ[1], Hafsa Aslan[1], Mustafa Aral[1], Semih Savaşçı[1], Aynur Şahin[1], Ramazan Güven[1]

[1]Başakşehir Çam and Sakura City Hospital, Emergency Department

Background and aim: Meningitis, defined as the inflammation of the cerebrospinal fluid, causes serious mortality and morbidity. It is important to suspect meningitis, to make an early diagnosis and to initiate prophylaxis in the emergency department, especially in patients with fever, neck stiffness, headache and confusion.Acute meningitis is clinically characterized by meningeal symptoms that develop within a few days or hours. Although complaints of fever, headache, meningismus and altered consciousness can be seen in chronic meningitis, the onset is often more insidious. It may take weeks or months for symptoms to appear.

Methods: Our study was carried out retrospectively between October 1, 2021 and October 1, 2022. In our study, 45 patients who applied to Başakşehir Çam and Sakura City Hospital Emergency Department with the suspicion of meningitis were included in our study. Of these patients, 25 patients underwent lumbar puncture. 7 patients were excluded from the study because their information could not be accessed in the hospital information management system.

Results: A total of 18 patients were included in our study. 72.8% of the cases were male. The median age was 56 (min-max: 27-74) in the untreated group and 42 (min-max: 29-80) in the treatment-initiated group. There was no significant difference between the two groups in terms of vital parameters between the treatment-initiated and treatment-initiated groups.As a result of the comparison between the laboratory tests between the untreated group and the treated group, there was no significant difference between blood white blood cell and c-reactive protein tests. But Bos WBC was found to be significantly higher in the treatment-initiated group between the two groups.

Conclusions: Treatment should be started without waiting for the results of blood and lumbar puncture in patients who present to the emergency department with findings that may cause suspicion of meningitis, such as neurological deficits. Our study shows that in case of clinical suspicion, blood white blood cell and c-reactive protein results are not sufficient to make the differential diagnosis of meningitis. We have seen in our study that the number of empty white blood cells gives more accurate results in diagnosing meningitis.

Keywords: Lumbar puncture, Meningitis, Emergency department

S- 190

Clinical Findings and Usage of Brain CT in Pediatric Head Trauma Patients.

Fatma Çakmak[1], Behçet Varışlı[2]

[1]Özel Buhara Hastanesi
[2]Çanakkale Mehmet Akif Ersoy Devlet Hastanesi

Background and aim: Traumatic brain injury (TBI) is one of the leading causes of death and disability among the children in worldwide. TBI in pediatric population have several differences from adults. While managing a pediatric patient with brain injury, radiation exposure due to CT scan should be a concern for the physicians. In this study we aim to investigate the mechanism of head injuries and CT scan findings in pediatric patients.

Methods: This is a retrospective study. The 211 pediatric patients older than 2 years old who were admitted to our ED with the complaint of isolated head trauma were evaluated for the study. 147 of them were included in the study.

Results: The mean age was 12.02 ± 5.57. The 83 (56.5%) of patients were male whereas 64(%43,5) female. The most common trauma mechanism were respectively: Falling from heigh (29.6%), falling from the same level (24.8%), motor vehicle collisions (21.3%) and sports injury (%13,7). The mean Glasgow Coma Scale (GCS) score was 14.91 ± 0.76. Most common signs and symptoms after trauma were nausea or vomiting (38.9%), pain in the trauma area (%36,1), skin changes such as edema, ecchymosis, abrasion, laceration etc. in the trauma area (%32,2), prone to sleep (%28,3), discomfort (%26,4), headache (17.2%), and loss of consciousness (9.7%). Head CT were obtained for 132 (%89,7) patients. 122 (%92,4) of the patients have not a pathological finding in CT. The pathological findings in CT scan were linear skull fracture %2,45, epidural hematoma %1,9, contusion %1,7, subdural hematoma %1,4, subarachnoid hemorrhage %1,1 and depressed skull Fracture %0.9 respectively. Only 2 patients required operative intervention.

Conclusions: Of the patients who underwent CT scan only a small number had pathological findings. In addition to this, although the most common CT finding was a linear fracture, none of them required surgical intervention. In the light of these findings, clinicians should be cautious for obtaining cranial CT in pediatric head trauma patients. Using of some clinical decision rules such as PECARN and CATCH can prevent unnecessary CT scan and prevent patients from radiation exposure.

Keywords: pediatric head trauma, CT scan, head injury mechanism

S- 144

AA CAUSE OF SERIOUS HEADACHE İN THE EMERGENCY DEPARTMENT; SUBDURAL HEMATOMA AFTER EPIDURAL ANESTHESIA

Latif DURAN[1], Seniha KELKİTLİ[1], Aleyna ÖZDENİZCİ[1], Burak KÜÇÜKKARA[1]

[1]Ondokuz Mayıs Üniversitesi Tıp Fakültesi Acil Tıp AD. SAMSUN

Background and aim: Epidural anesthesia is a frequently used anesthesia technique today. The increase in the application of spinal anesthesia has brought about an increase in the incidence of complications. Complications of epidural anesthesia include back pain, headache, urinary retention, cauda equina syndrome, neurological deficits, meningitis, epidural abscess, spinal or epidural hematoma, hearing loss, bradycardia, hypotension, cardiac arrest. we presented a case admitted to the emergency department with the complaint of headache after epidural anesthesia for cesarean section and diagnosed as subdural hematoma.

Case: A 33-year-old female patient presented to the emergency department with the complaint of headache that started 2 days ago and gradually increased. Headache is diffuse, resistant to analgesics and it has become increasingly unbearable. She did not complain of vomiting, loss of consciousness, or seizures. The patient stated that she had rheumatoid arthritis and had a cesarean section with epidural anesthesia 15-20 days ago. On examination, the patient was conscious, oriented and cooperative, febrile to 36 C, blood pressure 120/80mmHg, pulse 62/minute, respiratory rate 18/minute. All system examinations were normal. In the neurological examination, Galskow coma score was 15, Pupillary isochoric, direct and indirect light reflex was obtained. There was no neck stiffness. There was no motor or sensory deficit. No pathological reflex was obtained. Deep tendon reflexes were normal. The patient's laboratory, complete blood count, liver and kidney function values, blood gas, coagulation parameters were normal. The patient was taken for a computed tomography (CT) scan of the brain; an appearance compatible with an acute subdural hematoma reaching a thickness of 16 mm at its widest part, which extends to the vertex at the level of the frontal lobe on the right, signs of compression to the lateral ventricle on the right, and minimal shift to the left in the midline were observed (Figure 1-2). There was an appearance compatible with edema in both cerebral hemispheres, more prominent on the right. The patient was operated urgently by the neurosurgery department.

Conclusions: Although headache developing after epidural interventions is often thought of as post spinal headache (PSH), it can also develop due to life-threatening bleeding such as subdural hematoma.

Keywords: Cesarean Section, Headache, Subdural Hematoma, Epidural Anesthesia

S- 120

Spontaneous Papillary Muscle Rupture

Gökhan Yılmaz[1], Bora Baltacıoğlu[1], Mustafa Keşaplı[1]

[1]Acil Tıp Kliniği, Antalya Eğitim ve Araştırma Hastnesi, Antalya, Türkiye

Background and aim: Spontaneous papillary muscle rupture (PMR) is a rare cardiovascular emergency. A review of cases of nonischemic spontaneous PMR published in 2000–2015 identified 11 additional cases of spontaneous PMR. In this case we will discuss a patient with PMR

Case: A 94-year-old patient with no chronic disease admitted to emrgency service with a symptom of shortness of breath. This symptom was present for one week. He had no chest pain, syncope, fever. On physical examination, the general condition of the patient was bad, confused, noncooperative, nonoriented, and her Glasgow coma score (GCS) was 12. Vital signs showed; body temperature 36,6°C, respiratory rate:25/min, heart rate of 103/min,blood pressure of 148/93 mmHg, and SPO2 of 87%. With auscultation, he had diffuse rales in both lungs. There was pretibial edema in both legs. The measured tests showed us ph:7.18, pCO2: 59.3, pO2: 62,5, HCO3: 18.3, pBNP: 6318, tROPONİN: 71. His electrolyte and kidney function tests were normal. On ECG it was normal sinus rhytym and there was just t inversion in D3. Then the patient was consultated to the cardiologist. The patient, whose condition worsened during the follow-ups, was intubated. Ecocardiography showed the chordae rupture of mitral valve posterior leaflette. There was no wall motion defect.The patient was intubated due to her progressive deterioration during follow-up. Then he hospitalized to coronary intensive care. The patient died towards the morning of the same night.

Conclusions: Papillary muscle rupture is a life-threatening emergency that is most commonly associated with acute myocardial ischemia. Nonischemic, spontaneous PMR occurs much more infrequently, with identified etiologies including severe annular calcification, myocarditis, infectious, Ehler-Danlos, Takotsubo cardiomyopathy, and mitral annular calcification. The aforementioned etiologies of PMR should be considered in hemodynamically unstable patients with new onset severe mitral regurgitation and pulmonary edema, once coronary artery disease has been ruled out. In this case, besides excluding coronary artery disease, we thought that papillary muscle rupture was due to annular calcification due to his age.

Keywords: papillary, rupture

S- 180

Has online shopping replaced drug dealers?

Nazire Belgin Akilli[1], Canan Küçükyılmaz[1], Fatih Eser[1], Ahmet Ergun[1], Ramazan Köylü[1]

[1]Konya City Hospital

Background and aim: With the development of technology, the medical world is faced with new stimulant molecules and their abuse and serious side effects. N-ethyl-nor-pentedron (NEP) is a new cathinone stimulant that entered the market in the mid-2010s. Although its sale is prohibited in Turkey, it can be sold abroad via the internet. Here, a case report who received intranasal NEP will be discussed.

Case: A 28-year-old male patient was brought to the emergency department due to agitation, erection, blurred vision and visual hallucinations after taking 40 mg of intranasal NEP.On physical examination, the patient was agitated, in the picture of excited delirium, HR:189/min, BP:110/70mmHg, and pupils were mydriatic.WBC:14.8410^3/µL, glucose 197mg/dl, creatinine 2.45 mg/dL, AST 339U/L, ALT 80U/L, CK:10126 U/L, K:2.9 mmol/L, hstroponin 815ng/L in examinations during admission to hospital , INR 1.81, pH:7.38, HCO3 20mmol/L, BE -4.3mmol/L and lactate 9.8mmol/L. The patient was sedated with benzodiazepines and admitted to the intensive care unit. Urine alkalinization,fluid resuscitation,and osmotic diuretic therapy were initiated due to rhabdomyolysis, and N-acetylcysteine was administered at a dose of 150 mg/kg in 15 minutes, 50 mg/kg in 4hours, and 100mg/kg in 16hours.Hemodialysis was applied to the patient whose urine output decreased on the second day of follow-up. Vitamin K and fresh frozen plasma and N-acetylcysteine therapy were continued in the patient.A diagnosis of disseminated intravascular coagulation was made and fresh frozen plasma, pooled platelets and vitamin K were administered.The patient's blood values, which reached peak biochemical parameters on the 5th day, entered a downward trend. The patient who responded to the treatment in the follow-ups was discharged on the 14th day.

Conclusions: New generation synthetic stimulants may cause serious side effects other than sympathomimetic and hallucinogenic toxidrome.NEP has started to be used especially after 2016.Case reports of the side effects of these new molecules are not plentiful.There are very few reports about the use of NEP in the literature.In our case, acute liver failure, acute renal failure, rhabdomyolysis and DIC developed after 40 mg intranasal NEP administration.Although there is no antidote, conventional care can be lifesaving in such critically ill patients

Keywords: N-ethyl-nor-pentedron, acute liver failure, acute renal failure

S- 060

Prognostic value of lactate in patients with sepsis

Müslüm Mönür[1]

[1]Hatay Eğitim ve Araştırma Hastanesi

Background and aim: Sepsis is a pathology with high mortality. In our study, we aimed to evaluate the effect of lactate level on patient prognosis in emergency service admissions of patients with sepsis.

Methods: Our study was planned retrospectively in a 3rd step hospital. Our study was carried out with patients who were taken to the intensive care unit with the diagnosis of sepsis from the emergency department between 01.03.2022 and 31.08.2022. The relationship between the patients' lactate levels and vital parameters, Glasgow coma scale (GCS), consciousness status, focus of infection, sepsis severity and mortality were evaluated.Data were analyzed in SPSS22. The Kolmogrov Smirnov test was used to analyze the data and examine the distribution width. Mann Whitney U and Kruskal Wallis tests were used to compare quantitative data with categorical variables, and pearson correlation analysis was used to compare quantitative data with each other. P<0.05 was considered significant.

Results: In our study, the median age of the patients was 63 (IQR: 21) years, and 58 (64.9%) of the patients were male. The median of lactate value was found to be 2.4 (IQR: 1.9) mg/dl. There is a positive correlation between lactate level and body temperature, pulse rate; A negative correlation was found between mean arterial pressure (p<0.05). No correlation was found between respiratory rate and GCS with lactate level (p>0.05). It was determined that the lactate level of the subjects with altered consciousness was significantly higher (p<0.05). No significant relationship was found between the focus of infection and lactate level (p>0.05). It was determined that lactate level increased significantly as the severity of sepsis increased (p<0.05). The lactate level of the patients who died was found to be significantly higher (p<0.05).

Conclusions: Lactate level is a parameter with high predictive value for bad prognosis and mortality in patients with sepsis.

Keywords: Sepsis, lactate, mortality

S- 109

Efficiency of troponine the diagnosis of acute coronary syndrome in chronic renal failure patients

Ecem Ermete Güler[1], Umut Payza[1], Ahmet Kayalı[1]

[1]İzmir Katip Çelebi Üniversitesi Atatürk Eğitim Ve Araştırma Hastanesi

Background and aim: : Chronic renal failure is an increasing public health problem. Coronary artery disease is seen in approximately 40% of these cases. In addition, troponin level is higher in these cases compared to the normal population. For this reason, the effectiveness of troponin is important in the detection of acute coronary syndrome in patients with chronic renal failure. We aimed to investigate this in our study.

Methods: Our study is a retrospective observational study conducted in the emergency room of a third-level university hospital. It was performed with 294 cases. The demographic data and disease information, laboratory test results and coronary angiography results of the cases were recorded in the study form. Statistical analysis was then performed. For the significance level, $p < 0.05$ was accepted.

Results: 63.8% of the cases were male and the mean age was 63.7 ± 11.72 years in men. STEMI was seen in 15.6% of the cases. In cases with STEMI, mean age, troponin and CK-MB levels, occlusion status in coronary angiography, number of occluded vessels and mortality were higher and HD ratio was less than other ACS types. When stage 5 CRF cases are compared with stage 3 and stage 4 cases; It was found to have higher troponin and lower CK-MB levels. For acute coronary syndrome, troponin cut-off, sensitivity and specificity values were calculated according to the CRF stages, and low sensitivity and specificity levels were determined in the obtained results. In addition, higher troponin and lactate levels were found in mortal cases.

Conclusions: Troponin levels in CRF patients are higher than the normal population. Troponin values are affected by creatinine and GFR levels. The sensitivity and specificity of the cut-off values of troponin for the diagnosis of ACS in CRF patients is low. However, mortality is also high in patients with high troponin. For these reasons, we think that it is not correct to associate the high troponin level seen in CRF patients with renal failure, and that it is a significant marker for the diagnosis of ACS when evaluated with the patient's clinic.

Keywords: CKD, ACS, TROPONINE

S- 158

Is Gray-White Matter Ratio in Out-of-Hospital Cardiac Arrest Patients really early predictor of neurological outcome and mortality?

Emine Emektar[1], Fatmanur Karaarslan[1], Cansu Öztürk[2], Selma Uysal Ramadan[2]

[1]Ankara Atatürk Sanatoryum Training and Research Hospital, Department of Emergency Medicine, Ankara, TURKEY
[2]Ankara Atatürk Sanatoryum Training and Research Hospital, Department of Radiology, Ankara, Turkey

Background and aim: Hypoxic-ischemic encephalopathy is known to be associated with brain edema, which reduces gray matter (GM) attenuation CT scans and results in a loss of gray-white matter differentiation. Several studies showed that the gray-white matter ratio (GWR), which is the ratio of GM attenuation to WM attenuation, is significantly lower in arrest patients with poor neurological outcomes than in patients with good outcomes, and therefore reduced GWR is associated with poor neurological condition. In this study, we aimed to investigate the relationship between neurological outcomes and short-term(28-day) mortality by evaluating GWR in CT of patients with returnof spontaneous circulation, who were brought to the emergency department due to out-of-hospital cardiac arrest.

Methods: This study has a retrospective design. Patients with ROSC who were brought to the emergency room due to out-of-hospital cardiac arrest and who underwent brain CT in the first 24 hours were included in the study. Demographic data, brain CT results, hospital outcome and 28-day mortality were recorded. Cerebral Performance Categories (CPC) score and patient mortality were used as the outcome.

Results: A total of 160 patients were included in the study. 45% of the patients were female and the median age was 75.5. The median brain CT time of the patients was 120 minutes. 16.3% of the patients were in the good neurological outcome group and the 28-day mortality rate was 77.5%. When attenuation values and GWRs of the patients were compared according to CPC of patients (good-poor), no statistically significant difference was detected in any parameter except MC2 ($p>0.05$ for all values). Also, when attenuation values and GWRs of the patients were compared according to 28-day mortality (survivor-non-survivor), no statistically significant difference was determined in any parameter except MC1 ($p>0.05$ for all values).

Conclusions: We showed that low GWR measured on brain CT in comatose patients who survived arrest after ROSC is not associated with poor neurological outcomes. Although it is emphasized in the literature that detection of GWR in brain CT can help the clinical decision process in patients surviving comatose arrest, we think that it is not valid for early brain CT and measurements of especially geriatric patients.

Keywords: Brain edema, Cardiac arrest, Computed tomography, Gray white matter ratio, Prognostication

S- 216

Value of Integrated Pulmonary Index (EPI) to predict exacerbation of Chronic Obstructive Pulmonary Disesase's severity

Fatmanur Karaarslan[1], Zeynep Saral Öztürk[1], GÜLŞAH ÇIKRIKÇI IŞIK[1], Yunsur Çevik[1]

[1]Sağlık Bilimleri Üniversitesi Ankara Atatürk Sanatoryum Hastanesi

Background and aim: The Integrated Pulmonary Index (EPI) is a mathematical algorithm that combines end tidal carbon dioxide (ETCO2), respiratory rate, oxygen saturation (SpO2) and pulse rate. It provides a simple and quick assessment of the patient's respiratory status. In this study, we aimed to examine the correlation between current prognostic scores and EPI value in patients admitted to the emergency department with exacerbation of Chronic Obstructive Pulmonary Disesase (COPD), and the diagnostic value of using EPI in combination with other scores in determining patients who can be discharged.

Methods: This study was conducted as a multicenter and prospective observational study. Patients who presented to the emergency department with a prediagnosis of COPD exacerbation were included. Patients whose final diagnosis was not exacerbation of COPD were excluded from the study. Exacerbation severity according to the Global Initiative for Chronic Obstructive Lung Disease (GOLD) classification, CURB-65, BAP-65 and DECAF scores and EPI values were recorded. The correlation of EPI value with other scores and its diagnostic value in detecting mild exacerbations according to GOLD severity classification were examined. A new score, which we named CURB-EPI, was created by combining the CURB-65 score and the EPI value. The diagnostic value of the CURB-EPI score in detecting mild exacerbations was examined.

Results: The study was carried out with 110 patients. According to GOLD classification, 43 (39.1%) patients had mild exacerbation, 43 (39.1%) patients had moderate exacerbations, and 24 (21.8%) patients had severe exacerbations. The AUC for the EPI in detecting mild exacerbations was 0.893 (95% CI; 0.831-0.954). The AUC of the CURB-65 score for detecting mild exacerbations was 0.774 (95% CI; 0.681-0.867). EPI and CURB-65 had better predictive value in detecting mild exacerbations than other scores. The CURB-EPI score had the best predictive value for detecting mild exacerbations, with an 0,909 AUC value (95% CI; 0.854-0.963).

Conclusions: We found that the EPI value has a good predictive value in the detection of mild COPD exacerbations, and its predictive value increases when used in combination with CURB-65. We think that the CURB-EPI score can be a guide in the decision of discharge in patients with exacerbation of COPD.

Keywords: Integrated Pulmonary Index, CURB-65, COPD acute exacerbation

S- 153

Bilateral Scapula Fracture as a Result of Electric Shock: A Rare Case

Ali Sarıdaş[1], Kübra Demir Çim[1]

[1]Prof. Dr.Cemil Taşcıoğlu City Hospital

Background and aim: The scapula is a bone that provides a connection between the upper limb and the trunk, which has important tasks in the coordination of complex shoulder joint movements. It is often seen in high-energy traumas accompanied by other injuries. The aim of this study was that fractures may occur in the bones due to falls in patients who come with the complaint of electric shock.

Case: A 41-year-old male patient presented with back and shoulder pain as a result of electric shock at work. General condition, conscious consciousness, cooperative orienteering, Blood pressure: 110/ 70, pulse: 77/min, respiration number 18/minute, fever: 36.6, oxygen saturation: 96, blood sugar: 122. On physical examination, muscle strength and sensory examination in bilateral lower and upper extremitary are natural. Other system inspections are natural. Nausea, vomiting are present. Horizantal slowing nystagmus present. Shoulder X-ray is requested from the patient who has no signs of additional injury from the outside and pathology is not detected. In Computerized Tomography imaging; Multiple fracture lines and deformed appearance are observed in the left and right scapula. The patient was consulted with orthopedics and bilateral shoulder strap was applied.

Conclusions: Due to the mechanism of scapula fractures, the fracture pattern should be evaluated by 3D computed tomography to understand the fracture pattern, and the decision for surgical treatment should be made after a good physical examination and radiological evaluation. Injuries that accompany scapula fractures must necessarily be considered. However, conservative treatment is sufficient in most patients.

Notes (Optional): Bilateral Scapula Fracture as a Result of Electric Shock: A Rare Case

Keywords: electric shock, scapula fracture, Orthopedic Emergency

S- 209

Acil Serviste Sık Aralıklarla Travma Takibinin Önemi: Tetraplejik Hasta

Vildan Avcu[1], Ayşe Fethiye Basa Kalafat[1], Ayşe Nur Demirel[1], Semra Işık[1], Ahmed Edizer[1], Serkan Doğan[1]

[1]İstanbul Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

Arka plan ve amaç: Travma sonrası ikincil bakı baştan ayağa tüm vücudun dikkatli bir şekilde incelenmesini içerir. İkincil bakı sırasında bu ayrıntılı muayene sık aralıklarla yapılmalıdır. Yüksek yaralanma riski olan bir hastada servikal omurganın görüntülenmesi zorunludur. Anterior kord sendromu çoğunlukla servikal posterior osteofit veya disk varlığında fleksiyon tip servikal yaralanmalar sonucu anterior spinal arter oklüzyonuna bağlı, bilgisayarlı tomografi(BT) incelemesinde kemik hasarı kanıtının yokluğunda travmadan sonra saatler içerisinde lezyon seviyesi altında bilateral paralizi, ağrı ve ısı duyusu kaybı olarak tanımlanır. Böyle bir klinik durumda mutlaka kontrastsız bir manyetik rezonans görüntüleme(MRG) yapılması önerilir. Bu olgumuzda kemikte patoloji olmaksızın sağ hemipleji ile başlayan ve takibinde tetrapleji gelişen servikal MRG ile tanıya gidilmesinden bahsetik.

Vaka: 48 yaş erkek hasta 112 tarafından motosiklet kazası olarak getirilmiştir. Primer bakısında GKS:15 oryante koopere olup vital anormalliği yoktu. Fizik muayenesinde sistem muayeneleri doğal ve nörolojik muayenesinde patoloji saptanmadı. Yatak başı ultrasonunda batında serbest sıvı izlenmedi. Bilateral pnömotoraks bulgusuna rastlanmadı. Spinal muayenede servikal hassasiyet dışında anormal bulgu saptanmadı. Hastanın laboratuvar ve radyolojik tetkikleri istenerek takip ve tedavi altına alındı. Resüsitasyon odasında güvenlik çemberine alınan hastanın sekonder bakısında sağ ayak plantar yüzde 7 cm kesi ve sağ hemiparezi saptanmıştır. Olası lezyona yönelik direkt grafi ve kraniyal, servikal, torakal ve lomber BT incelemesinde parankimal patoloji veya spinal omurgada fraktür veya dislokasyon saptanmamıştır. Sağ hemiplejiye yönelik NRŞ önerisiyle kontrastlı kraniyal ve servikal MRG incelemesi yapılmıştır. MRG görüntülemede C3-C4, C4-C5, C5-C6 C6-C7 disklerinde diffüz bulging görünümleri izlenmiştir. Bu esnada hastada tetrapleji gelişmiştir. Hasta hastaneye başvurusunun 5. Saatinde acil operasyon amaçlı ameliyathaneye interne edilmiştir. YBÜ ve servis takip sonrası taburculuğu yapılmıştır.

Kararlar: Travma sonrası acile başvuran hastalarda travmanın şiddetinin değerlendirilmesi, primer ve sekonder bakı büyük önem taşımaktadır. Hastanın acil servis takibinde kontrol muayeneleri aksatılmamalıdır. Bu hastada da olduğu gibi acil hekimleri için sık sık muayene ile birçok morbid ve mortal durumların önüne geçilebilir.

Anahtar Kelimeler: Motorsiklet Kazası, Sekonder Bakı

S- 208

RETROSPECTIVE EVALUATION OF TRAFFIC ACCIDENT CASES ADMITTED TO THE SECONDARY LEVEL PUBLIC HOSPITAL

Ertuğ Dinçer[1]

[1]Amasya Merzifon Kara Mustafa Paşa State Hospital

Background and aim: Injuries and deaths resulting from traffic accidents continue to be an important public health problem. According to the latest data of the World Health Organization, 1.3 million people die every year due to traffic accidents and 20-50 million people are exposed to non-fatal injuries as a result of traffic accidents. Therefore, in our study, we aimed to retrospectively evaluate the traffic accidents admitted to our second level public hospital.

Methods: In our study, traffic accident cases admitted to our emergency department between June 2022 and September 2022 were evaluated retrospectively. Patient's age, gender, trauma mechanisms, areas of exposure to trauma, injury severity score (ISS) values, outcomes and length of stay were examined.

Results: The median age of 251 traffic accident patients was found to be 34(0-89), and 94(37.5%) of the patients were women. 188(74.9%) patients were exposed to in-vehicle traffic accidents, 29(11.6%) patients to motorcycle accidents. It was observed that 90(35.9%) patients had upper extremity injuries and 88(35.1%) patients had head trauma. The median ISS value of the patients was 1(0-36) and 243(96.8%) patients were in the low ISS group. 221(88.0%) patients were discharged, 19(7.6%) patients were referred to an advanced center, 10(4.0%) patients were hospitalized, and 1(0.4%) patient died in the emergency department. The median length of stay was 5(1-34) days, and 1(0.4%) patient was found to be dead during hospitalization. When the patients were discharged from the emergency department or could not be discharged, such as referral, hospitalization, and death, no significant difference was found between the two groups in terms of age, gender, trauma mechanisms, and upper extremity trauma($p>0.05$). It was determined that patients who had pelvis, head, thorax and lower extremity trauma were mostly in the group who could not be discharged, and a significant difference was found between the groups($p<0.05$).

Conclusions: As a result of our study, we found that the patients who applied to our center due to a traffic accident were mostly male and were exposed to in-vehicle traffic accidents. We concluded that patients frequently had upper extremity trauma and head trauma; and body injuries other than upper extremity injuries prevented patients from being discharged.

Keywords: Trauma, Traffic Accidents, Injury

S- 128

Evaluation of Cases With Early Repolarization on Electrocardiogram and Normal Population in Terms of Laboratory and Clinical Results

Abuzer Coşkun[1], Burak Demirci[1], Şevki Hakan Eren[2]

[1]University of Health Sciences, Bagcilar Training and Research Hospital, Istanbul, Türkiye
[2]Gaziantep University Faculty of Medicine, Gaziantep, Türkiye

Background and aim: Early repolarization (ER) is a common finding, and it is important to correctly evaluate the effects of its benign and malignant forms in terms of prognosis. It was aimed to compare ER cases with the normal population in terms of multi-vessel disease, bypass and mortality.

Methods: This study comprised 776 patients over the age of 18 who visited the emergency department between January 2015 and December 2020. 377 of these patients had ER in the electrocardiogram (ECG), 409 patients had normal ECGs and were added to the study as the control group. Age, gender, multi-vessel disease, by-pass and mortality relations of the patients were evaluated with angiographic findings.

Results: The mean age of 786 patients was 50.49±6.82 years, 372(47.3%) were female, and the age range was 23-66 years (p<0.001). Of the cases, 110(14%) were in the horizontal ER, 267(34%) were in the ascending ER, and 409 (52%) were in the normal group. Multi-vessel disease was observed in 58(7.4%) of all cases (p<0.001), while 19(2.4%) had a by-pass attempt because angiography could not be cured (p=0.001). Of the cases with early repolarization, 176(22.4%) were inferior, 112(14.2%) were inferolateral, 77(9.8%) were anterior, and a small number of them were 12(1.5%) common ER types (p<0.001). Angiography was normal in 575(73.2%) cases, left anterior descending artery was occluded in 65(8.3%), circumflex artery was occluded in 73(9.3%) and right coronary artery was occluded in 73(9.3%) cases (p<0.001). Eighteen (2.3%) patients resulted in mortality in the 60-month follow-up of all cases. Of these, 9(8.2%) were horizontal, 2(0.7%) were asending, and 7(1.7%) were in the normal population (p<0.001).

Conclusions: Electrocardiography can be a helpful method to evaluate interventional angiography, prognosis and mortality in both early repolarization cases and normal cases.

Keywords: Emergency Department, Early Repolarization, Angiography, Multiple vessel disease, Mortality

S- 088

The Epidemiology of Adult Emergency Medical Services Use in Muğla

Yalçın Gölcük[1]

[1]Muğla Sıtkı Koçman University, Faculty of Medicine, Department of Emergency Medicine

Background and aim: This study aims to investigate epidemiology of adult ED visits arriving by Emergency Medical Services (EMS) in Muğla.

Methods: This retrospective, single-center, observational, and cross-sectional study was conducted at the ED of university-affiliated training and research hospital in Muğla, Turkey between 1 July 2019 and 1 January 2022. Data were collected from consecutive adult patients who were admitted to the ED via ambulances. Patients were included if they were 18 years or older. We excluded patients who met any of the following criteria: pediatric patients; aeromedical transport; admitted to the ED via private car or outpatient. The following parameters were collected: patients were categorized as to whether they arrived via EMS or via other means, age, gender, nationality, disease or injury, triage tag, and result of ED assessment.

Results: During the research period, the hospital electronic health data system represent 280,691 adult ED visits. Of these ED visits, 31,740 (11.3%) consecutive critical or injured patients [mean age, 57.2 ± 21.8 years (range, 18-112 years); 56.4% men] arrived via ambulances (97.6% public EMS and 2.4% private ambulance service) were enrolled in the study. Of these patients, 41% (n=13,014) of the ED visits resulted in a hospital admission (30.4% wards and 10.6% intensive care unit). All-cause in-ED mortality rate was 0.7% (n=211). The absolute number of transports reached a peak at age 18 to 30 (16%). The percentage of using EMS for critical disease, traffic accidents, and occupational accidents were 91.8%, 6.5%, and 1.7%, respectively. The percentage of triage tag were 87.6%, 12%, 0.2%, and 0.2% for yellow, red, black, and green codes. There were no significant differences between mortality vs. gender and days of the week (P = .337 and P = .934, respectively).

Conclusions: The epidemiology of adult EMS use may have important operational, training, and public health implications and requires further study.

Keywords: emergency medical services, prehospital care, emergency department, epidemiology

S- 183

A Fentanyl Overdose Case due to Fentanyl Patches

Murside Yayli[1], Gokhan Cabar[1], Gulbahar Guler Orucoglu[1], Nedim Uzun[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background and aim: Fentanyl is an opioid which is a synthetic narcotic analgesic with strong analgesic effect. Due to its rapid action and a short duration of action in the body, it has been used to control acute pain. The transdermal affecting fentanyl containing flasters that are known as Fentanyl patch has many side-effects, such as deterioration of the central nervous system, respiratory depression, hypotension, hypothermia, bradycardia, and flaccid muscles. Fentanyl patches are a common reason for fentanyl intoxication because of its noninvasiveness and simple method of administration. This also results in abuse for managing acute pain.

Case: A-26-year-old woman working as a nurse in a health facility was found unresponsive after sleeping in bed. It's stated that she was complaining of a severe headache before sleeping. First examination performed at her house by paramedics. On her body multiple fentanyl patches found (3*75 mcg/hour, 1*50 mcg/hour, 3*25 mcg/hour transdermal flasters). Due to respiratory failure, the patient was intubated by paramedics and brought to our emergency service. In examination, the pupils were pinpoint pupils. With high suspicion of opioid intoxication Naloxone was administered. For elimination of acute cranial pathologies which would have been the reason for the severe headache and also loss of consciousness, cranial imagings performed. There was no pathological result in imagings. After the evaluations, the clinical picture was attributed to fentanyl overdose. The patient was admitted to the intensive care unit ICU.

Conclusions: The patient was admitted to the intensive care unit. After 1-day follow up in the ICU, the patient was extubated and discharged.

Notes (Optional): In emergency services, the physicians should consider opioid intoxication when patients are admitted with mental state changes, respiratory depression, miosis. If there is any fentanyl patch on the patient's skin, it must be removed as soon as possible. Conservative treatments such as mechanical ventilation and naloxone injections should provide a better prognosis, especially when administered rapidly.

Keywords: fentanyl patch, pinpoint pupils, opioid overdose, fentanyl overdose

S- 051

One of the Rare Diagnoses in Patients Presenting to the Emergency Department with Fever: Malaria

Kemal Sener[1]

[1]Republic of Turkey, Ministry of Healthy Başaksehir Çam and Sakura State Hospital

Background and aim: Introduction: Malaria is a parasitic disease transmitted to humans by the Anopheles mosquito. It is usually seen in people traveling to areas where Malaria is endemic. It infects more than three million people in about 100 countries and causes more than 400,000 deaths. Malaria cases in our country; It is seen after travel to areas where malaria is endemic. In this case series, we wanted to draw attention to our 3 patients who had a history of traveling abroad and were diagnosed with malaria.

Case: CasesCase-1: A 29-year-old male patient was admitted to our clinic with fever, joint pain, weakness, and headache. He had a history of going abroad about 4 months ago and was diagnosed with malaria. Artemether-lumefantrine treatment for malaria was planned as twice a day for 3 days.Case-2: A 26-year-old male patient was referred to our hospital from an external center due to high thrombocytopenia infection values. It was learned that the patient had a recent travel history from Africa and had lived in Tanzania for 22 months. Due to the patient's travel history and resistant fever, malaria screening was performed. The patient was diagnosed with P.Falciparum malaria. The patient was diagnosed with P.Falciparum malaria. Since the patient had hypotension and tachycardia and his general condition was poor, the patient was followed up primarily in the intensive care unit for 5 days and then in the service for 3 days.Case-3: A 32-year-old male patient is admitted to our outpatient emergency department with complaints of fever attacks, headache and malaise. It was learned that the patient had a history of returning from Africa 1 week ago and received malaria treatment about 4 months ago. As the peripheral smear was found to be compatible with P.falciparum malaria, the patient was started on artemether-lumefantrine treatment with 6 doses for 3 days.

Conclusions: Conclusion: Fever is the main symptom of malaria. Travel history should be questioned in patients who come to the emergency department with fever, and malaria should not be forgotten in the differential diagnosis of fever cases whose source cannot be found.

Keywords: Malaria, emergency medicine, Travel-Related Illnesses

S- 174

Use of Hemodialysis in Isoniazid Poisoning

Nazire Belgin Akıllı[1], Beyza Duran[1], Feray Elma[1], Ceren Şen Tanrıkulu[1], Ramazan Köylü[1]

[1]Konya City Hospital

Background and aim: Isoniazid is a molecule that is not frequently used for suicide purposes in daily practice. In high doses, it causes resistant seizures and altered consciousness,lactic acidosis,hepatotoxicity and renal toxicity. Here, a patient whose seizure was stopped with hemodialysis and whose toxicity findings improved will be discussed.

Case: A 20-year-old female patient with a known diagnosis of psoriasis and depressive disorder applied 2of her own medicine, Humira(40 mg/0.8 ml)injector pen, and drank 24tablets offluoxetine-containing tablet together with alcohol. She had a generalized tonic-clonic seizure 3times at home for 1-2minutes, and her relatives informed the emergency call system. Gastric lavage was performed by inserting a nasogastric tube, and activated charcoal was administered.Generalized tonic-clonic seizures continued during the follow-ups in the emergency department. She was intubated because he was unconscious and had a glaskow coma score(GCS) of 7.She was admitted to the toxicology intensive care unit.The patient's blood gas pH:6.8,HCO3:6.3mmol/L,lactate:20mmol/L,BE:-27mmol/L, other hemogram and biochemical routine tests were normal. She had deep metabolic acidosis with a high anion gap. She was then applied on dialysis. After dialysis, the patient's blood gases improved, he became conscious and had no seizures. When the patient, who regained consciousness, was contacted, it was learned that she used Isoniazid for tuberculosis prophylaxis due to the drugs she used due to psoriasis, and she had taken 50 of this drug. Thereupon, pyridoxine was added to her treatment. The CK of the patient who developed rhabdomyolysis on the 3rd day of follow-up increased to a peak of5500U/L. Urine alkalinization,fluid resuscitation and,mannitol treatment were started. The patient,who improved clinically and laboratoryly, was discharged on the6th day of follow-up.

Conclusions: Treatment of isoniazid poisoning consists of supportive care and pyridoxine therapy. Dialysis is not routinely recommended. The EXTRIP working group reported that if standard-dose pyridoxine can be administered in patients with isoniazid poisoning, the benefit-harm ratio of extracorporeal treatments may be greater in favor of harm, and recommended ECRT application with a weak recommendation and very low quality of evidence. However, in cases where pyridoxine cannot be reached and the anamnesis is unclear, as in our case, extracorporeal treatment may be life-saving.

Keywords: hemodialysis, isoniazid, poisoning

S- 172

Aluminum Phosphide Poisoning

Nazire Belgin Akıllı[1], Canan Küçükyılmaz[1], Fatih Eser[1], Berke Yıldırım[1], Ramazan Köylü[1]

[1]Konya City Hospital

Background and aim: Phosphine is a poisonous gas used as a rodenticide and insecticide for the protection of grains and animal feed. Mortality rates in aluminum phosphite poisoning are quite high. There is no specific antidote. A case report has been prepared to emphasize that the application of general treatment principles in poisonings is still the most important part of the treatment.

Case: CASE 1:A 22-year-old male patient, with his friends at home, stayed for one day in a house where an insecticide containing aluminum phosphite was placed. He was admittedtoour hospital with complaints of morning sickness,vomiting,and,shortness of breath.GCS:15, BP:85/50mm/Hg,sat:78% pulse:120/min,ECG:sinus tachycardia. No significant feature was detected in the physical examination. In the laboratory: Glucose:98mg/dl,BUN:23mg/dl,Creatinine:1.12mg/dl,WBC:4.53 Hb:16.9gr/dl,Lactate:10.5mmol/L,hstroponine:93ng/L. The patient was admitted to the toxicology unit for follow-up and treatment. Noninvasive mechanical ventilation,diuretic and vasodilator therapy was applied to the patient who developed pulmonary edema in the follow-up. He had global hypokinesia in his echocardiography and his ejection fraction was found to be 40%. The patient was discharged after 8 days of treatment. In the follow-ups 1 month later, it was observed that systolic functions had completely recovered.CASE 2:An 18-year-old male patient, with his friends at home, stayed for one day in a house where an insecticide containing aluminum phosphite was placed.He was admitted to our hospital with complaints of morning sickness,vomiting,and,shortness of breath. GCS::15, BP:130/80mmHg, saturation 80%,pulse: 140/min,ECG:Sinus tachycardia. No pathology was observed in his physical examination,except tachypnea. In his laboratory, Glucose:168mg/dl,BUN:34mg/dl,creatine:1.22mg/dl WBC: 6.25 U/L, Hb:18gr/dl, lactate:13 mmol/L, hstroponine: 431ng/dlThe patient was admitted to the toxicology unit for follow-up and treatment. Vasodilator and diuretic treatment was applied to the patient who developed pulmonary edema in the follow-up. Echocardiography revealed global hypokinesia and ejection fraction: 40%. The patient was discharged after8 days oftreatment.In the follow-ups 1 month later,it was observed that systolic functions had completely recovered.

Conclusions: Poisoning with aluminum phosphite is usually oral or respiratory. Refractory shock,cardiac arrhythmias,pulmonary edema may develop. In our cases,the clinic of acute heart failure was in the foreground. In these cases,especially supporting cardiac functions, early pharmacological treatment and early noninvasive ventilation may be life saving.

Keywords: Aluminum phosphide, Poisoning, Congestive heart failure

S- 112

Acute Unilateral Weakness Following Wake-up: What is Your Diagnosis? Stroke or Aortic Dissection?

Ebru CETIN KENAN[1], Umut OCAK[1], Melih YUKSEL[1], Mehmet Oguzhan AY[1], Halil KAYA[1]

[1]University of Health Sciences, Bursa School of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine

Background and aim: The aim of this presentation is to remind that the symptoms that directing the physicians to stroke diagnosis are not always show the truth. The symptoms of stroke can mimic aortic dissection and aortic dissection does not always present with chest or back pain. We hereby would like to discuss atypical presentations of aortic dissection.

Case: We present a 71-year-old male patient who was admitted to our clinic with left-sided weakness that started 1 hour following wake-up at early in the morning (5 a.m.) with nausea and vomiting. Our patient's past medical history included coronary artery disease only. On physical examination she was alert, oriented and awake with Glasgow coma scale score of 15/15. The patient's vital signs were unremarkable with a pulse of 78 beats per minute, respiratory rate of 15 breaths per minute, and blood pressure of 140/70 mmHg right-arm and 155/80 mmHg left-arm. His neurological examination was remarkable for the left hemiparesis with 4/5 muscle strength in the left arm. The patient's electrocardiogram (ECG) showed normal sinus rhythm with no ST-T changes. Initial work-up with computed tomography (CT), and magnetic resonance imaging (MRI), was suspected of aortic dissection unexpectedly. Further diagnostic work-up with computerized tomography angiogram (CTA) revealed the type A aortic dissection and the patient was admitted by cardiovascular surgery team for the surgical operation to the intensive care unit of cardiovascular surgery.

Conclusions: This case demonstrates that type A aortic dissection can presents wide range of symptoms and can mimics stroke. In such a complex field as emergency service where rapid diagnosis and early treatment are vital points, emergency physicians should keep in mind that symptoms guiding stroke sometimes can be associated with aortic dissection and so, emergency physicians must have high index of suspicion in those cases.

Notes (Optional): Conflict of Interest: Nope

Keywords: wake-up stroke, aortic dissection, hemiparesis, emergency service

S- 007

Evaluation of lactate levels in patients with COVID-19 pneumonia

Pınar Burcu Doğan[1], Emine Emektar[2], Meral Yıldırım[2], Şeref Kerem Çorbacıoğlu[2], Yunsur Çevik[2]

[1]Yüksekova state hospital, Department of Emergency Medicine, Hakkari, Turkey
[2]Ankara Atatürk Sanatoryum Training and Research Hospital, Department of Emergency Medicine, Ankara, TURKEY

Background and aim: Our primary aim in this study is to determine the lactate level in patients with Coronavirus Disease 2019 (COVID-19) pneumonia, and our secondary aim is to examine the relationship between lactate levels and lactate clearance with disease severity and 30-day mortality.

Methods: This is a retrospective study. Patients with COVID-19 were included in the study. A subgroup was formed from patients whose 4-6th hour lactate values could be reached, and their 4-6-hour lactate clearance was calculated. A threshold value of 20% was selected for clearance, and low and high clearance grouping was made. Patients were included in the composite outcome group in the presence of intensive care unit (ICU) admission or invasive mechanical ventilation or mortality, and comparisons were made between the groups with and without composite outcome. $p<0.05$ was considered significant

Results: 628 patients were included in the study. 272 (43.3%) of the patients were female and the median age was 70. The median lactate value was 2.26 mmol/L. The median lactate value of the living group was 1.72 mmol/L and 3.31 mmol/L of the deceased group. Admission lactate was significantly higher in the deceased group compared to the surviving group, and lactate clearance was significantly lower in the deceased group ($p<0.001$ for all values). The composite outcome was significantly higher in the low clearance group ($p<0.001$).

Conclusions: We have shown that lactate levels are elevated in patients with COVID 19 pneumonia. We found that admission lactate and 4-6-hour lactate clearance have significant value in predicting mortality and composite outcome in COVID-19 patients. We think that lactate level monitoring may contribute to the management of COVID-19 patients.

Keywords: COVID-19, lactate, lactate clearance

S- 025

Holistic Approach To The Complaint Of Shortness Of Breath

Kemal Yıldırım[1], Abdullah İlhan[1], Dilay Satılmış[1], Erdem Çevik[1], Kemal Yıldırım[1]

[1]SBU Sultan II. Abdülhamit Han Training and Research Hospital

Background and aim: Although shortness of breath is often caused by the lungs or heart, pathology developing in any organ in our body may cause the patient to present to the Emergency Department with shortness of breath. It should not be forgotten that there may be causes of dyspnea other than pneumonia, heart failure, reactive airway disease(1).

Case: A 74-year-old male patient developed syncope while being examined in an external medical center with the complaint of shortness of breath. The patient was accepted for pulmonary computerized angiography imaging by the pulmonary physician on duty in our hospital with a preliminary diagnosis of pulmonary embolism.When the patient was brought to the emergency room, his general condition was poor, his consciousness was clear. Vital signs were: 71/33mmHg Pulse: 96 beats/min. Fever: 36 Spo2: 83 respiratory rate: 28 blood glucose: 99. On physical examination, diffuse tenderness was found in the abdomen. Pulmonary computerized angiography was not planned due to elevation in kidney function tests, and perihepatic fluid and leveling were detected in the abdominal region that entered the thoracic image in the thorax computed tomography taken in an external medical center (Fig.1). Upon physical examination a nasogastric tube (NG) was inserted, and massive hemorrhage was observed in the aspiration performed after NG insertion. Intubation was decided upon initiation of gasping in the patient. With the preliminary diagnosis of gastrointestinal perforation, non-contrast abdominal CT was planned, diffuse air and fluid levels were observed in the abdomen in the CT (Fig.2). An emergency operation was planned by the general surgery clinic and he was hospitalized.

Conclusions: Dyspnea is a clinical term that describes the sensations of breathlessness and shortness of breath it has a complex pathophysiology. Geriatric patients presenting with dyspnea requires a multidisciplinary approach and careful differential diagnosis because they can present with different clinical presentations and have limitations in diagnosis and treatment approaches (2) In this case, we aimed to draw attention to the uncommon causes of shortness of breath and to draw attention to the need to approach the images taken holistically.

Keywords: dyspnea, gastrointestinal hemorrhage, operation, general surgery

S- 001

Intrahospital Transport of a Trauma Patient from Helipad to the Emergency Department during the Covid-19 Pandemic: A Simulation Workshop

Banu Arslan[1], Mehmet Necmeddin Sutasir[1], Mucahit Kapci[1], Semih Korkut[1], Selim Altinarik[2]

[1]Basaksehir Cam and Sakura City Hospital.
[2]General Directorate of Emergency Health Services, Istanbul Provincial Health Directorate.

Background and aim: A substantial surge in natural disasters has been observed in the last 50 years, due to rapid growth of the world's population, climate change and increasing extreme weather events. The combination of increasing number of natural disasters with the COVID-19 pandemic has made it quite possible to experience complex disasters. Complex disasters could be even dangerous and destructive. It is extremely necessary that healthcare facilities are meticulously prepared for complex disasters to maintain high quality patient care during these chaotic times. With this simulation workshop, we aimed to form comprehensive guidance on the intrahospital transportation of trauma patients while maintaining the highest level of patient care

Case: We are presenting a trauma patient who was injured in an earthquake during the Covid-19 pandemic period. The intrahospital transportation of the patient involved five steps which are preparation phase, pre-landing phase, landing phase and initial assessment, patient transfer and patient handover. The transportation team was selected based on their competency and experience. The operation was led by an emergency medicine physician. Ground safety in and around the helipad was established by security before the helicopter approached. Following landing and the rotors came to the complete stop, helipad personnel gave permission with a hand signal to the team waiting on the 1st safety control point to approach the 2nd control point. Patient monitoring including continuous electrocardiogram monitoring, non-invasive blood pressure, saturation, and the temperature were established and rechecked before the commencement of the transfer to the safe zone. The detailed patient transfer form was clearly documented and involved all stages of the transfer

Conclusions: Hospitals with helipads have a great potential to improve trauma patient care and create great value for critical patients. Guidelines promotes measures to ensure safe patient transport. Advanced preparation and optimal coordination of the transport process is vital to managing trauma patients and improve quality of healthcare.Key Points•Experienced and competent team members•Appropriate equipment containing transport bag•Personal protective equipment for infection control•Careful evaluation of the C-A-B-D•Stabilization of the patient before transfer started•Treating life-threatening emergencies as soon as possible•Extensive monitoring throughout the transfer•Evaluation of the patient at every stage•Detailed clinical progress note

Keywords: Earthquake, Pandemic, Organization, Patient transport, Helipad

S- 089

Yüzde şişlik nedenli başvuran hastada nadir görülen bir olgu: pnömomediastinum

Huriye Yürük Mısırlıoğlu[1], Yavuz Otal[1], Merve Topal[1]

[1]Ankara Şehir Hastanesi Acil Tıp Kliniği, Ankara

Arka plan ve amaç: Hastalıklar aynı olsa da hastadan hastaya değişen prezentasyonlar görmemiz bize Hipokrat'ın ünlü bir sözünü hatırlatmaktadır. 'Hastalık yoktur, hasta vardır.' Biz bu olgumuzda hepimizin çok sık olmasa da tanısını koyduğu bir hastalığın çok farklı bir klinikle karşımıza çıktığını sizlere sunmak ve algılarımızı her zaman açık tutmamızı tavsiye etmek istemekteyiz.

Vaka: 57 yaşında erkek hasta acil servis kliniğine yüzde şişlik nedenli başvurdu. Özgeçmişinde akciğer kanseri ve lobektomi hikayesi olan hastanın başvuru sırasındaki vital bulguları kan basıncı:123/96 nabız:88/dk ss:16/dk ateş: 36,8 derece ve SO2:%92 idi. Hastanın şikayetleri son 3 günde başlamış ve yavaş yavaş şişlik boyundan yüze doğru ilerlemişti. Hastanın ek başka şikayeti ve nefes darlığı mevcut değildi. Yapılan fizik muayenede inspeksiyonda hastanın alt göz kapağında ve yüzde şişlik olduğu görüldü. Palpasyonda ise yüz, boyun ve göğüs ön duvarında krepitasyonlar saptandı. Solunum sesleri kaba olan hastanın çekilen PAAG'de ve boyun grafisinde yaygın cilt altı amfizemler saptandı. Bunun üzerine hastaya toraks BT planlandı. Çekilen toraks BT 'Kalp boyutları normaldir. Perikardiyal efüzyon saptanmadı. Trakea ve her iki ana bronş açıktır. Sağ üst ve sol alt loblar izlenmedi (opere?). Akciğer parankim alanlarında aktif infiltrasyon bulgusu izlenmemiştir. Havalanan akciğer parankim alanlarında yaygın fibroatelektatik sekel değişiklikler ve nodüler dansiteler mevcuttur. Her iki hemitoraksta sağda 15 mm, solda 28 mm kalınlıkta bilateral plevral effüzyon izlendi. Sağ alt lob bazalde ince pnömotoraks izlendi. Servikal bölgede, kesite giren bilateral üst ekstremitelerde, toraksta yaygın cilt altı amfizemi ve pnömomediastenum izlendi' şeklinde raporlandı. Hasta göğüs cerrahi bölümüne konsülte edildi ve servislerine yatış verildi. Serviste pektoral fasyotomi uygulanan hasta 4 gün takip sonrası servisten taburcu edildi.

Kararlar: Pnömomediastinum hastaları çoğunlukla nefes darlığı ve göğüs ağrısı şikayeti ile acil servislere başvurup tanı alırlar. Nadir görülen diğer klinik bulgular ise öksürük, ses kısıklığı, boyun şişliği , odinofaji gibi semptomlardır. Hastalık genellikle erkeklerde görülmekte ve spontan veya sekonder pnömomediastinum başlığı altında ikiye ayrılmaktadır. Spontan pnömotoraks ve pnömomediastinum malignite hastalarında sık görülmesine rağmen bu hastamızda nefes darlığı yaratmadan yalnızca yüzde şişlik şikayeti ile görülmüş olması hastalık prezentasyonlarının hastalığa özel değil hastaya/kişiye özel olduğunu bir kez daha göstermektedir.

Anahtar Kelimeler: pnömomediastinum, yüzde şişlik, cilt altı amfizem

S- 048

Reducing the Risk of Infection Associated with Urinary Catheterization Intervention in the Emergency Department

Hakan DÜLGEROĞLU[2], Ömer Faruk KARAKOYUN[1], Birdal YILDIRIM[3]

[1]Muğla Eğitim Araştırma Hastanesi Acil Servis
[2]Muğla Sıtkı Koçman Üniversitesi Tıp Fakültesi
[3]Muğla Sıtkı Koçman Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Complications related to Urinary catheterization (UC) are most commonly listed as urinary tract infection, hematuria and pseudo-passage development.Urinary tract infection is often caused by the hands of healthcare professionals or ascending by microorganisms colonizing the patient's own colon and/or periurethral area.Emergency departments are dynamic patient care areas where patient density is high.We plan to reduce the risk of UTI by developing a protocol to standardize the practice of UC in the emergency department.

Methods: After the ethics committee approval of our study, they filled out the research form we prepared for UCs, which they randomly applied to 15 candidate physicians working in the emergency department in the first month.Then, we explained the UC application algorithm we developed for the emergency service to the candidate physicians participating in our research with a 1-hour theoretical lesson. In the second month of our study, patients were administered UC according to the "UC application algorithm" and candidate physicians filled out the research forms.The results of the urine cultures of the patients who underwent UC in two periods were evaluated.

Results: A total of 59 patients, 30 (50.8%) male and 29 (49.2%) female, whose consent was obtained, participated in the study.When the UC indications of the patients were evaluated, it was found that UC was applied to 45 (76.3%) of the patients to monitor the urine output and to help 14 (23.7%) of the patients to maintain the urine output. The most common growths in the urine cultures of the patients were E.coli, Klepsiella p. and detected as candida. It was determined that there was no relationship between the UC technique applied to the patients and the growth in the urine culture (P=0.15).

Conclusions: Urine culture was reproduced in 12 patients with the conventional technique and in six patients with the new technique.Although the difference was not statistically significant, the new technique may have reduced urinary tract infection after application.With larger series and multicenter studies, the statistical decrease may become significant.Since the risk of developing UTI is higher in the application of UC in the emergency services, this risk can be reduced by providing practical training.

Keywords: Urinary catheterization, Emergency department, infection

S- 063

A RARE CASE of TOXOPLASMA ENCEPHALITIS

Cengizhan Keski[1], Melih Yüksel[1], Mehmet Oğuzhan Ay[1], Halil Kaya[1], Umut Ocak[1], Enad Kenan[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: As it is known, Human Immunodeficiency Virus (HIV) positive cases are immunosuppressed and open to infections. Toxoplasma encephalitis can be seen in HIV-positive patients who have not yet reached the Acquired Immunodeficiency Syndrome (AIDS) stage. Lesions involving the Central Nervous System may be HIV-related abscesses, as well as conditions such as meningitis and encephalitis caused by opportunistic pathogens.

Case: A 28-year-old male patient was admitted to the emergency department with a generalized tonic-clonic seizure. It was learned that the patient was started on tuberculosis treatment 2 months ago and followed up. He had no history of drug use or substance abuse, except for antituberculosis drugs. There was no feature in his family history either. In his physical examination, his vital signs were stable, his general condition was good, GCS: 15, systemic examination was normal. The patient's WBC: 6520, neutrophil:3040, lymphocyte: 2880, monocytes: 440, HB:13.4g/dL, PLT:275000. Cranial computed tomography (CT) was performed in the patient to rule out a central pathology. On CT, a hypodense area, which may be significant in terms of edema-infarct, was detected in the white matter at the level of the right frontoparietal junction. On contrast-enhanced cranial magnetic resonance (MR) imaging, a 12x6 mm sized ovoid lesion with a subcortical location in the right parietal lobe at the level of convexity, centrally hypointense on T1 examination, peripheral isointense, T2 and FLAIR examinations showed a central hypointense, peripheral isointense post-contrast mass. Around the frontoparietal lobes, a prominent area of edema was accompanying (abscess?, glial tm?, metastasis?). The patient was admitted to Neurosurgery.

Conclusions: Toxoplasma is one of the leading causes of central nervous system involvement in AIDS patients. It is caused by Toxoplasma gondii. Toxoplasma is most commonly caused by reactivation of latent tissue cysts as a result of progressive loss of cellular immunity in patients with reduced CD4+ T lymphocyte count. Toxaplasma is seen in patients who have not received antiretroviral therapy (ART) or who do not use ART appropriately. When the disease is treated, almost complete recovery occurs, and untreated cases are fatal.

Keywords: toxaplasma encephalitis, AIDS, HIV, emergency department

S- 103

Streptococcus Gallolyticus endocarditits following gastroscopy

İhsan Gümüştaş[1], Erkan Günay[1], Hatice Topcu[1]

[1]SBÜ Seyrantepe Hamidiye Etfal Eğitim Ve Araştırma Hastanesi

Background and aim: Infective endocarditis (IE) is a life-threatening disease, with up to 22% in hospital and 40% 5 year mortality. Common complications are congestive heart failure and embolic stroke. Streptococcus bovis is 5th (6%) common organism in positive blood culture. Literature review suggest IE caused by streptococcus gallolyticus (SG) has increased in recent years. Administration of antibiotics solely to prevent IE is not recommended for patients who undergo a gastrointestinal (GI) procedure.

Case: We present a case report with a week long fever after a GI procedure who underwent surgery for cardiac failure due to valvular mass as a result of IE. After the patient's consent for publication was obtained, patient history and follow up information was gathered from he hospital information system. A 55-years-old female presented to our ED with fever and progressive dyspnea for 6 days and newly onset chest pain. She had a history of diabetes, hypertension, iron deficiency anemia, gastritis. A week ago she had an upper GI endoscopic evaluation. Her history revealed medications for diabetes, hypertension and hyperlipidemia. Physical examination revealed bibasilar crackles without pretibial edema. Otherwise, systemic evaluation was unremarkable. Initial evaluation revealed heart rate 130/minute, oxygen saturation 94%, blood pressure 140/60 mmHg and fever 36.5 C. Her admission ECG showed sinus tachycardia (120bpm) and st depression in V1-6. Her infectious laboratory results were elevated. Blood cultures were obtained at the ED and she was admitted to the coronary intensive care unit (ICU) for an elective trans esophageal ecocardiography for the diagnosis of IE. SG were produced from the cultures and appropriate medical treatment was administered. Echocardiography revealed a right coronary leaflet mass and heart failure findings. She underwent surgery for aortic and mitral valve replacement after deterioration of her clinical status and increased cardiac failure symptoms. Patient was discharged after three week hospital admission without any complications and with a follow up for cardiac symptoms.

Conclusions: This case demonstrates that SG can result in a clinically significant bacteremia and appropriate medical prevention should be considered before a GI procedure. Emergency physicians should be aware of this association for appropriate medical management of these patients.

Keywords: Streptococcus Gallolyticus, Infective Endocarditis, gastrointestinal procedure

S- 002

Aile Hekimi Uzmanlık Öğrencilerinin Acil Tıp Rotasyonu Değerlendirilmesi

Muhammed Semih Gedik[1]

[1]Acil Tıp Anabilimdalı, Kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi, Kahramanmaraş/Türkiye

Arka plan ve amaç: 1. basamak sağlık hizmetleri sunucularının mihenk taşı aile hekimlerimizdir. Çalışmamızın amacı, aile hekimliği uzmanlık öğrencilerinin eğitimleri süresince yaptıkları acil tıp rotasyonu hakkındaki düşüncelerini, acil tıp rotasyonunun kendilerine katkılarını, acil tıp rotasyonun eksikliklerini ve buna neden olan sebepleri uzmanlık öğrencilerinin ve aile hekimi uzmanlarının bakış açısıyla ortaya koymaktır.

Yöntemler: Çalışmamıza aile hekimliği uzmanlık öğrencileri ve aile hekimliği uzmanları katıldı. Google formlar kısmında anket hazırlandı ve katılımcılara anket uygulandı. Acil tıp rotasyonu değerlendirme anket formumuz; tıpta uzmanlık kurulu önerileri ve yayınlanan daha önceki çalışmalardan referans alınarak hazırlandı. Çalışmamızda kullanılan anket formu; 1. Sosyo-demografik bilgiler2. Acil tıp rotasyon hedeflerini, rotasyon öncesi bilip bilmediği3. Acil tıp rotasyon hedeflerini herhangi bir kaynaktan araştırıp/araştırmadığı, araştırdı ise nereden araştırdığı4. Acil tıp rotasyonu eğitim sürecinin ve süresinin değerlendirilmesi5. Acil tıp rotasyon eğitimin sahada karşılaşılan durumlar ile uyumlu olup olmadığı6. Acil tıp rotasyon eğitiminin kişinin kendisine katkıları7. Acil tıp rotasyonu ile ilgili genel görüşler ve beklentilerden oluşmaktadır.

Sonuçlar: Aile hekimliği asistanlarının %67,6'sı acil tıp rotasyon süresinin az olduğunu, bu sürenin arttırılması gerektiğini düşünüyorlar. Aile hekimliği asistanlarının acil tıp rotasyonunda hekimlik görevlerini diğer rotasyonlara göre daha çok yaptıklarını ve acil tıp rotasyonundan ziyadesiyle memnun oldukları saptandı. Yardımcı sağlık personeli eksikliğinden dolayı kliniklerde hekimlerin az da olsa mağduriyet yaşadıklarını ifade ettiler. Çalışmamıza katılan asistanların %91'i acil tıp rotasyon eğitimin sahada karşılaşılan durumlar ile uyumlu olduğunu belirtti. Acil tıp rotasyon eğitiminin kişinin kendisine katkıları sorulduğunda; hastalara acil yaklaşım konusunda faydalı olduğunu, acil servise gelen hastaların acil servis süreçleri hakkında tecrübe ve bilgi sahibi olunduğunu, acil vakalara yaklaşımlarının geliştiğini, acil olan/olmayan hastayı artık daha iyi ayırt edildiği, acil girişimler konusunda bilgi ve tecrübenin arttığını ve acil serviste tıbbi olarak pratiklik kazanıldığı saptandı.Aile hekimliği asistanları rotasyonlarda eğitim saatlerinin arttırılmasını, hocalardan daha fazla fayda sağlanılmasını istiyorlar. Katılımcıların acil tıp kliniğinde travma, sarı ve kırmızı alanda daha aktif hasta bakmak istediklerini fakat gece nöbeti tutmak istemedikleri saptandı.

Kararlar: Aile hekimliği asistanları uzmanlık eğitimi sürecindeki acil rotasyonların çekirdek eğitim müfredatı ile uyumlu olarak, eğitim-hizmet dengesi kurularak ve birinci basamak hizmetlerine yönelik olarak verilmesi; aile hekimliği uzmanlık öğrencilerinin eğitim ile hizmet kalitesini ve bilgisini arttıracaktır.

Anahtar Kelimeler: "Aile Hekimliği", "Uzmanlık Eğitimi", "Acil Tıp", "Rotasyon Eğitimi"

S- 136

Ticagrelor-induced seizure. a case report

Bora Baltacıoğlu[1], Fatih Selvi[1], Cihan Bedel[1]

[1]Department of Emergency Medicine, Health Science University, Antalya Training and Research Hospital, Antalya, Turkey

Background and aim: Ticagrelor is the mainstay drug therapy available to most patients with acute coronary syndrome. Ticagrelor has common side effects such as Back pain, bleeding gums, blurred vision, chest pain, tightness, or discomfort, confusion, cough…etc. Some side effects are also rare such as dizziness, bleeding gums, nausea and difficulty in speaking, fever, change in mental status in rare.Herein, we report such a patient who had seizures after usage of ticagrelor.

Case: A 84-year-old female patient admitted to our emergency medicine with convulsions 10-15 times in last 24-hour period. Each convulsion lasted approximately 1-minute. She had history of coronary artery disease (CAD), heart failure and kidney failure. Due to CAD 1 year ago, ticagrelor 90 mg, two in a day, has been prescribed. She was prescribed doksazosin mesilat, karvedilol, atorvastatin calcium, asetilsalisilik asit, allopurinol before. After first usage of ticagrelor, patient had convulsions. That's why she quitted ticagrelor. After ten days without ticagrelor, patient's grandson gave ticagrelor to patient by mistake. After second time of usage, patient had convulsions again. Then she was taken to our emergency service with confusion and blood pressure of 174/86 mmHg. She had previous inferior MI findings on ECG. There was no evidence for pathological diseases on blood results, cranial brain tomography, magnetic resonance imaging and diffusion magnetic resonance imaging. In this patient, ticagrelor was considered and the patient was hospitalized with a prediagnosis of epilepsy in order to investigate the etiology of seizures.

Conclusions: Ticagrelor is recommended to use frequently in patients with acute coronary senrome, there are studies showing that it causes atrial fibrillation, prolongation in QT-interval, and sinus arrest or ventricular pause, in different durations of use from 2 days to 2 months. Common side effects: bruising, bleeding more easily,nose bleeds, headache, dizziness, cough, nausea, diarrhea, irregular heart beat high blood pressure, back pain, low blood pressure, fatigue, and chest pain. Also the occurrence of dyspnoea in these patients is also increasing, as it is a very common side efect of ticagrelor As a result, it should be kept in mind by emergency physicians that seizures may develop due to the use of ticagrelor.

Keywords: Ticagrelor, seizure, emergency

S- 201

Acil Servise Başvuran Travmalı Hastalarda Acil ve Resüsitatif Torakotomi Uygulamalarımızın Değerlendirilmesi

Selime Kahraman[1], Recep Demirhan[1], Talha Doğruyol[1], Sinem Doğruyol[2], Tuğba Özlü[1]

[1]Kartal Dr Lütfi Kırdar Şehir Hastanesi, Göğüs Cerrahisi Kliniği
[2]SBÜ Haydarpaşa Numune EAH, Acil Tıp Kliniği

Arka plan ve amaç: Giriş: Acil servise araç içi ve araç dışı trafik kazası, delici kesici alet yaralanması, yüksekten düşme, iş kazası, ateşli silah yaralanması, drap ve doğal afetler (sel, deprem, yangın gibi.) ile başvurular temel travma sebeplerini oluşturur. Genel beden travmaları içinde toraks travması solunum ve kardiyovasküler sistem patolojileri ile yakından ilişkili olduğundan hayatı tehdit edecek durumlarla sonuçlanabilir. Toraks travmaları künt ve penetran olarak iki temel sınıfa ayrılır. Toraks travmalarında cerrahi mudehale gerekli olduğu durumlarda işlemin zamanlaması ve yerine göre elektif, acil ve resüsitatif operasyon planlanır.

Yöntemler: Materyel metot: Ocak 2011 ve Temmuz 2022 tarihleri arasında Kartal Dr Lütfi Kırdar Şehir Hastanesi acil servisine toraks travması ile başvuran hastalarda acil ve resüsitatif torakotomi uygulamaları değerlendirildi. Veriler hastane sistemi üzerinde geriye dönük taranarak elde edildi. Hastaların demografik verileri, travma etyolojisi, operasyon türü ve sağ kalım sonuçları kayıt edildi.Bulgular:Çalışmamıza 57 erkek, 9 kadın toplamda 66 travma hastası dahil edildi. Travma etyolojisinde en sık sebep 35 hasta sayısı ile delici kesici alet yaralanmaları idi, 18 ateşli silah yaralanması, 7 yüksekten düşme, 4 trafik kazası, 2 iş kazası bulunmakta idi. Yaralanma yeri 38 hastada sol, 21 hastada sağ, 6 hastada bilateraldi. Hastaların 65'i torakotomi ile birine sternotomi ile mudehale edildi. Operasyonların 49'i acil olarak, 17' si resüsitasyon amaçlı yapıldı. Acil olarak opere edilen hastalarda sağ kalım %91 iken, resüsitasyon amaçlı opere edilen hastalarda sağ kalım % 5.8 idi.

Sonuçlar: Tartışma:Travma hastalarının %10-15'inde acil torakotomi gerekliliği vardır (1). Acil torakotominin endikasyonları temelde iki tanedir. Bunlar tüp torakostomi sonrası ani drenaj (> 1000cc) veya devam eden drenajdır (> 200 cc/ saat) ile hastanın klinik tablosunda bozulma ve şok tablosuna gidiştir. Resusitasyon amaçlı acil serviste veya olay yerinde yapılan torakotomi işlemine ' acil servis torakotomisi ' denilmektedir. Acil servis torakotomisinde amaç perikardiyal tamponadın boşaltılması, intratorasik kanamanın kontrolü, aorta klemp konulması ve internal kardiyak masaj yapılması ve hava embolisinin boşaltılmasıdır.

Kararlar: Sonuç:Künt ve penetran toraks travmalarında yapılan resüsitatif torakotomide mortalite oranları oldukça yüksektir. Penetran travmalarda sağ kalım, künt travmalardan daha yüksektir. Penetran travmalar içinde ise delici kesici alet yaralanmalarında, ateşli silah yaralanmalarına göre sağ kalım daha yüksektir.

Anahtar Kelimeler: travma, acil torakotomi, resüsitatif torakotomi, acil servis torakotomisi

S- 176

Sudden Hearing Loss Due To Carbon Monoxide Poisoning

Nazire Belgin Akıllı[1], Abdullah Arslan[2], Tuğçe Büyükgök Ayan[1], Fatih Eser[1], İsa Aydın[3]

[1]Konya City Hospital, Emergency Department
[2]Necmeddin Erbakan University, Meram Faculty of Medicine, Department of Underwater and Hyperbaric Medicine
[3]Konya City Hospital, Department of Otolaryngology

Background and aim: Carbon monoxide poisoning is one of the rare causes of hearing loss that can cause reversible or irreversible unilateral or bilateral hearing loss after acute or chronic exposure. In this report, we present a case of bilateral sensorineural hearing loss secondary to carbon monoxide poisoning.

Case: A 25-year-old male patient was found unconscious in the room with a stove in the morning. Upon the arrival of COHB:30, he was referred to our clinic. In the examination performed in our emergency department, fever: 37.6 BP: 102/74mmHg, Sat: 97 Pulse: 102 ECG: NSR. GCS:15 described decreased hearing and tinnitus. Other system examinations were normal. The otolaryngology clinic was consulted. An audiometric test was requested from the patient whose ear examination did not reveal any pathological findings other than left tympanic membrane perforation (due to otitis he had had 2 years ago). Bilateral neurosensory hearing loss was detected in the patient who underwent audiometric testing. The patient was started on hyperbaric oxygen therapy, prednol and benexol and was admitted to the toxicology intensive care unit. After hyperbaric treatment, the patient's hearing loss improved and tinnitus regressed. He was discharged to come for control

Conclusions: Exposure to CO is one of the known but rare causes of hearing loss. This kind of impairment is caused by the effect of CO on blood oxygen-carrying capacity or free radical production. It has been evidenced that auditory cortex, inferior colliculus, and cochlea are very sensitive to anoxia, but central auditory pathways are more sensitive than the cochlea. HBO therapy is indicated to reverse the cellular damage that occurs in carbon monoxide poisoning. Treatment of sensorineural hearing loss due to carbon monoxide poisoning still remains unclear. In the literature, steroid and vitamin B therapy are recommended for these patients. Hyperbaric oxygen therapy may be one of the promising treatment methods in this regard.

Keywords: hearing loss, hyperbaric oxygen therapy, Carbon monoxide poisoning

S- 123

MOBİLE LEFT VENTRİCULAR APİCAL THROMBUS

Mücahide Şamlı[1], Özgür Söğüt[1], Tarık Akdemir[1]

[1]Haseki Eğitim Araştırma Hastanesi

Background and aim: Left ventricular thrombus has a high risk of embolization . Left ventricular thrombus(LVT) is serious complication of acute myocardial infarction and of non-ischemic cardiomyopathies. Epidemiologic data suggest the incidence of LVT to be as high as 15% in patients with ST-segment elevation MI, up to 25% in patients experiencing an anterior MI and between 2–36% in patients with nonischemic cardiomyopathies. Left ventricular thrombusTherapeutic recommendations like treatment with low molecular heparin and intravenous unfractionated heparin, thrombolysis or surgical thrombectomy have failed to reach a consensus.

Case: A 37 year old man patient has no history of disease , presented with dyspnea, disabilty, apathy of the left and right lower limb. In the physical examination showed that pulse deficits, pallor and coldness in both lower extremities. Decreased left ventricular systolic function, dilated cardiomypathy and two mobile thrombus in apex of left ventricul was detected on echocardiogram. Lower limb and Abdominal CT (Computed Tomography) Angiography showed in right femoral arterial thrombosis, both renal arterial thrombus. Blood pressure was 120/80 mmHg in both arms, a heart rate of 70 beats per min, respiratory rate of 21 breaths per min.Laboratory studies found a normal hemoglobin level at 15 g/d L and thrombocyt of 246,000/mm3, an elevated serum C-reactive protein of 18 mg/L. The patient was consulted with the Department of Cardiovascular Surgery and was hospitalized for thrombectomy surgery and medical treatment .The patient received anticoagulation with low-molecular-weight heparin(oksapar 0,8 mL twice Daily) Given the high probability of embolism associated with thrombus in the left ventricul, the indication for surgery was made. The anticoagulant therapy was initiated and surgical embolectomy was performed with restoration of blood flow, but the patient due to heart failure (EF: %10 in Cardiac Ultrasound/Echocardiography) is on the waiting list for heart transplant.

Conclusions: In case of mobile left ventricular thrombus with low ejection fraction and heart failure heart transplant might be a therapeutic option.

Keywords: Left ventricular thrombus (LVT); apical thrombus, heart transplant

S- 133

Evaluation Of Cardiovascular Lipid Parameters In The Severity Of Acute Ischemic Stroke In Elderly

Mustafa Çalık[1], Melike Mercan Başpınar[2]

[1]University of Health Sciences Gaziosmanpaşa Training and Research Hospital, Department of Emergency Medicine
[2]University of Health Sciences Gaziosmanpaşa Training and Research Hospital, Department of Family Medicine

Background and aim: : In this study, it was aimed to determine the relationship between laboratory values, corrected QT duration and cardiovascular lipid risk parameters on acute ischemic stroke severity measured by the National Stroke Health Scale (NIHSS).

Methods: Among the hospitalized acute ischemic cases who admitted to the emergency service of Gaziosmanpaşa Training and Research Hospital between June 2020 and January 2022, 22 males (46.8%) and 25 females (53.2%) aged 65 years and over were evaluated. Socio-demographic data, laboratory values, NIHSS score, RANKIN score, QT times were recorded for each patient. Patients with a previous stroke were not included in the study. In the calculation of the data, Spearman correlation and Kruskal-Wallis tests were performed for assessment of correlations of NIHSS score and differences of groups in stroke severity.

Results: The median time to hospital admission after stroke was 12 hours, and the median hospital stay was 15 days in patients with a median age of 74 years, with a mean NIHHS score of 7.66±6.10 points and RANKIN score of 2.61±1.84 points. 78.7% (n:37) of the patients had a high level plasma atherogenicity index (PAI). The rate of patients with LDL value below 70 mg/dl was 12.8% (n:6), and no difference was observed in terms of stroke severity distribution between stroke cases with and without target LDL level (p:0.323). Likewise, LDL levels were found to be similar between stroke severity groups (p:0.391). There were no significant relationship between NIHSS score and; length of stay (r:0.048 p:0.747), BMI (r:0.071 p:0.635), T.Cholesterol/HDL ratio (r:0.219 p:0.139), Triglyceride/HDL ratio (r:0.238, p:0.107)), LDL/HDL ratio (r:0.211 p:0.155), QTc duration (r:0.001 p:0.993), Plasma Atherogenicity Index, ATI (r:0.238 p:0.107).

Conclusions: In the study, no relationship was found between the severity of acute ischemic stroke over 65 years of age and the cholesterol panel and the cardiovascular risk indices obtained. Considering that there is no data showing that statin therapy reduces mortality in primary prevention, especially for people over 70 years of age, it has been observed that large-scale studies are needed to individualize geriatric statin therapy decision.

Keywords: elderly, lipid parameters, acute ischemic stroke

S- 157

A Comparison Of The Modified Sadpersons Scale With Psychiatric Recommendations For Hospitalization Decision In Patients Admitted To The Emergency Department For Suicide

Mehmet TATLI[1], Gökhan EYÜPOĞLU[2], Özlem GÜNEYSEL[3], Hilal HOCAGİL[4], Hakan HAKKOYMAZ[5]

[1]SBÜ. VAN Eğitim ve Araştırma Hastanesi
[2]Başakşehir Çam ve Sakura Şehir Hastanesi
[3]Maltepe Üniversitesi Tıp Fakültesi
[4]Bülent Ecevit Üniversitesi Tıp Fakültesi
[5]Kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi

Arka plan ve amaç: The modified SADPERSONS scale is one of the most commonly used auxiliary scales used in the emergency department to decide on hospitalization or discharge of patients admitted after a suicide attempt. 10 major demographic risk factors are evaluated and scored. According to the scoring, there are recommendations about hospitalization and discharge. The total score varies between 0 and 14. According to the MSPS, patients with a score of 5 and below can be admitted to the psychiatry outpatient clinic. Patients with a score of 6 and above are likely to be hospitalized, and patients with a score of 8 and above are highly likely to be hospitalized and should be consulted by a psychiatrist. The aim of our study was to investigate the reliability of the MSPS in our population in making the decision of hospitalization or discharge of patients evaluated in the Emergency Department after a suicide attempt.

Yöntemler: Patients admitted to the emergency department of Dr. Lütfi Kırdar Kartal Training and Research Hospital after a suicide attempt for two years were evaluated by MSPS. All patients evaluated with MSPS were consulted to a psychiatrist simultaneously. MSPS recommendations were compared with psychiatric decisions. All data were entered into the SPSS program and evaluated

Sonuçlar: 147 of 205 patients were women. Hospitalization was also recommended by psychiatrists in 95% of patients who scored >8 points on the MSPÖ. Of the 131 patients who scored <5 points on the MSPÖ, 5 (3.8%) were hospitalized by a psychiatrist. The sensitivity, specificity, positive predictive value and negative predictive value of MSPÖ were 90%, 84%, 67% and 96%, respectively.

Kararlar: Deciding on hospitalization or discharge of patients admitted to the emergency department after a suicide attempt poses serious dilemmas for physicians working in the emergency department. Objective scales are needed to evaluate such patients for hospitalization in the emergency department. Although the MSPS does not meet all the requirements, it is a scale that can be used in the emergency department.

Anahtar Kelimeler: Modified Sad Person Scale, Suicide Admission Criterias, Suicide

S- 054

Rash and Fever After Rat Bite: A Pediatric Case From North of Syria

Bahadır Karaca[1], Buğra Yıldırım[3], Burak Çelik[2]

[1]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine
[2]Kirsehir Training and Research Hospital, Department of Emergency Medicine
[3]Kilis State Hospital, Department of Pediatrics

Arka plan ve amaç: Rickettsial diseases are a group of diseases caused by obligate intracellular gram-negative coccobacilli and transmitted to humans by arthropod vectors. The classic triad of the disease is fever, headache, and rash. Since the delay in diagnosis and treatment leads to increased morbidity and mortality, the diagnosis should be made with clinical suspicion and treatment should be started. Here, a two-year-old patient diagnosed with rickettsial disease is presented.

Vaka: A two-year-old male patient presented to the emergency service and with beginning a red rash on the trunk, then a vesicular rash that spread to the extremities, with complaints of fever lasting for 4 days. In the patient's history, it is said that he was bitten by a large mouse about 4 days ago and he had intermittent fever for three days. On physical examination, the patient had a well-defined, non-pruritic, pink-red color that does not tend to merge with each other, and scattered, dense maculopapular vesicular eruptions on both knees, fingers, extremities and trunk. There was no hepatomegaly or splenomegaly.There was lymphadenopathy in the axillary and inginal regions. In laboratory test results, leukocyte 7800/µL, hemoglobin 7.8 g/dL, hematocrit 34.2%, platelet: 742.000/µL, 53.5% neutrophils, 32.5% lymphocytes, 13.2% monocytes were found.Erythrocyte sedimentation rate in the first hour 110 mm/hr, CRP 187.38 mg/L, lactate:0.88 mmol/lt, Fibrinogen:8.01 mg Aptt:23.1 sec, Pt:13.4 sec, INR.: It was 1.13 were found.There was no electrolyte imbalance except the serum sodium value was 136 mmol/L. Liver function tests had doubled. Coagulation tests were within normal limits.The patient was admitted to the pediatric service from the emergency department and followed up.He was treated with ceftriaxone, ampicillin subactam, vancomycin IV for three days. In the follow-up of the patient, similar rashes were observed mainly on the palms, mouth and extremities.In the following days, nausea and confusion were added to the complaints of weakness, fatigue, loss of appetite.After the fever complaints continued and CRP increased, the patient's treatment was revised as vancomycin, meropenem, ciprofloxacin, clindamycin, doxycycline and azithromycin, considering possible Rickettsiosis.

Kararlar: Considering the patient's contact with animals in an area where rickettsiosis is common, the nature of the rash, and the clinical process in the follow-up, antibiotic revision was performed with a preliminary diagnosis of rickettsiosis.

Notlar (Opsiyonel): A case of rickettsia from northern Syria will be presented.

Anahtar Kelimeler: tifüs, pediatric emergency, Rickettsia, fever

S- 179

Retrospective Evaluation of Cases Presenting with Carbonmonoxyde Poisoning to Emergency Department

Cihat Yel[1]

[1]Hatay Eğitim ve Araştırma Hastanesi

Background and aim: Carbonmonoxyde (CO) poisoning is a mortal patology. The aim of this study is to contribute to the literature by examining the correlation between demographic, vital and blood values of cases who presented with CO poisoning.

Methods: This retrospectice study was conducted on 245 patient who diagnosed with CO poisoning and visited Hatay Research and Education Hospital Emergency Department between June 1 2021 and May 31 2022. Age, gender, sypmthom, glasgow coma scale (GCS) and some of blood values [pH, alanine aminotransferase (ALT), aspartate aminotransferase (AST), creatine kinase (CK), CK-MB and troponin] of the patients were reviewed. The statistical analysis of the data was performed by using SPSS (Ver.22) software package. Mean value and interquantile range (IQR) values were used for representation of quantitative data ; case number(n) and percentage (%) were used for representation of qualitative data.The disrubution of quantitative data was evaluated by using Kolmogrov Smirnov test.The analyzing of nonparametric data was evaluated by using Mann Whitney U test. Correlation of two quantitative data was analyzed by using Spearman Correlation test.P<0.05 was considered statistically significant.

Results: Median age of patients was 33 (IQR:22.5) years and 91(%31) of the patients was male. 227(%92.7) of the patients were poisoned by stove, 18 (7.3) of the patient were poisoned by hookah. CO-Hb value was measured %26.5 (IQR: %5). Most common sypmtom in patients was dizziness (%82) and nausea (%71.4). CO-Hb values of the patients who has syncope, arrest, lateralizing value, unconsciousness, speech disorder and defect of vision were evaluated significantly high (p<0.05).There was no correlation between other sympthoms and CO-Hb level (p>0.05).It was detected that CO-Hb level was negatively correlated with GCS and positively correlated with lactate, AST, ALT and CK-MB. There was no correlation between CO-Hb level, blood pressure, heart rate, pH, CK and troponin values (p>0.05).

Conclusions: We came to the conclusion that CO-Hb level is highly related to neurological symptoms and blood parameters indicating hypoxia.

Keywords: Carbonmonoxyde poisoning, emergency medicine

S- 162

Improving the final year medical students' emergency department consultation request skills by online simulation practices

Özlem Taze[1], Melih Elçin[1], Mehmet Ergin[2]

[1]Hacettepe University Institute of Health Sciences, Department of Simulation in Health Sciences
[2]Yıldırım Beyazıt University, Faculty of Medicine, Department of Emergency Medicine

Background and aim: Importance of non-technical skills education has been recognized in the medical field recently. Communication, as a component of these skills, is a critically important one in complex environments, such as emergency departments (EDs), to ensure patient safety. ED consultations are one of the key areas where communication skills need to be used effectively. The present study aimed to teach final year medical students to request consultation in EDs.

Methods: The study is designed as delivering and assessing a simulation-based education module in embedded participants. One group pre-test/post-test experimental design in method is used in 43 final year (intern) medical students at who are required to complete a mandatory ED rotation at Yıldırım Beyazıt University School of Medicine between November-December 2020. A didactic consultation training is first provided to the group, followed by a scenario based assessment, based on the Kessler's 5C framework. During the next phase an embedded participant has provided a simulation-based consultation request training and a scenario-based assessment conducted.

Results: Evaluations based on 5C check lists showed that the assessment score following simulation-based training was significantly higher than that of didactic-only training. The most significant and positive changes following the simulation based training were in the subsets of "identifies name of consultant physician", "presents a concise story" and "specifies timeframe for consultation" (p=0,016 ; p=0.000 ; p=0,000 respectively). The average score following didactic consultation training was 8,39±2,11 while it was 9,84±2,02 following the simulation based training. The overall score of simulation-based training was found to be significantly higher than that of didactic-only training.

Conclusions: Study results suggest that communication skills for consultation during undergraduate medical education can be improved by using a simulation-based education model. The most significant action to support this conclusion is thought to use "embedded participants" during training. These embedded participants, who can intervene the scenario to make it complicated or change the direction of the progress, are shown to allow students assess the situation thoroughly and improve critical skills such as problem solving and communication. Training medical students in using a standardized model for consultation may improve both the quality of consultation and physician-to-physician communication.

Keywords: Medicine, education, simulation, consultation, non-technical skill

S- 132

Peritonsillar Abscess and Uvula Edema

İbrahim Halil TOKSUL[1]

[1]Başakşehir Çam ve Sakura Şehir Hastanesi

Background and aim: Peritonsillar abscess is the most common deep infection of the head and neck that occurs in adults. It is typically formed by a combination of aerobic and anaerobic bacteria. Fever, sore throat, difficulty in swallowing and trismus are the most common complaints. Appropriate antibiotic therapy should be initiated after puncture and aspiration. In advanced cases, incision and drainage or emergency tonsillectomy may be required. In addition, an accompanying and very rare finding, uvular redness and edema (uvular hydrops), can be confused with anaphylaxis at first. In this study, we presented to the Emergency Department of Başakşehir Çam and Sakura City Hospital in 2022 with the complaints of difficulty in swallowing and shortness of breath after the antibiotics used after the Upper Respiratory Tract Infection. We will try to present two cases diagnosed as abscess.

Case: Casa-1 39 years old male patient.CASE-2 A 62-year-old male patient applies to the emergency department with the complaint of dyspnea.

Conclusions: Discussion; Peritonsillar abscess (PTA) is the collection of purulent material between the tonsillar capsule, superior constrictor and palatopharyngeus muscles.Uvular hydrops is usually idiopathic and self-limited. It may be the result of an acute allergic reaction or angioedema. The diagnosis is clinical based on an edematous uvula. Neither imaging nor laboratory results contribute to the diagnosis of uvular hydrops. Uvular hydrops may be accompanied by sore throat or difficulty swallowing. The uvula will appear swollen and pale. This may be associated with significant hypopharyngeal edema. In this setting, it is more likely to be associated with airway obstruction. As far as is known, the association of uvular hydrops and peritonsillar abscess is rare and is only included as case examples in the literature. Neither uvular hydrops nor PTA alone usually obstruct the airway. Both conditions are usually treatable on an outpatient basis. However, both can independently cause airway obstruction. When present concomitantly, there are no data on which to base judgment of prognosis. Therefore, the patient should be hospitalized for monitoring of airway status. More experience is needed to determine when airway obstruction occurs with co-existing hydrops and PTA.

Keywords: airway obstruction, Peritonsillar abscess, uvular hydrops

S- 042

RELATIONSHIP WITH COVID-19 AND DIABETIC KETOACIDOSIS: TWO CASE SERIES

ADEM ÇAKIR[1]

[1]Department of Emergency Medicine, The Ministry of Health of Republic of Turkey, Canakkale Mehmet Akif Ersoy State Hospital, Canakkale, TURKEY

Background and aim: Diabetic ketoacidosis (DKA) is a serious acute metabolic complication of diabetes and is often triggered by infectious causes. In the literature, it is thought that Covid-19 disease triggers hyperglycemic crises, but the evidence is insufficient.We presented 2 PCR-positive DKA cases .

Case: The first of our cases; A 48-year-old male patient admitted to the emergency department with complaints of fatigue, polydipsia and polyuria for 2 days. In the vital parameters; blood pressure 104/58 mmHg; pulse 106 beats/min; fever 37,6°C; respiratory rate 26/min and saturation was 93%. At admission, his plasma glucose was 715 mg/dL, blood urea 88 mg/dL, creatinine 2,06 mg/dL, sodium 139 mEq/L, potassium 5,3 mEq/L, and ketone 4+ in urine test. He had compensated metabolic acidosis.Our second case is; A 34-year-old male patient was brought to the emergency department with vomiting, shortness of breath and confusion. In the vital parameters, blood pressure 154/82 mmHg, pulse 116 beats/min, saturation 91%, respiratory rate 28/min, and fever was 38,1°C. At admission, the patient had plasma glucose 684 mg/dL, urea 92, creatinine 2,76 mg/dL, potassium 3,2 mEq/L, and 4+ ketones in the urine. The patient had decompensated metabolic acidosis in his blood gas. Both patients's PCR test was positive and the imaging test showed peribronchial ground glass opacities in both lungs. Both patients had poor glycemic control. Chest diseases and endocrinology unit consultation was requested for both patients, treatment continued and they were admitted to the intensive care unit. The first patient's general condition deteriorated and he was intubated on the 6th day of his hospitalization, and that he was arrested on the 11th day of his hospitalization and died as a result of the interventions. The second patient; he was transferred to the service on the 9th day of his hospitalization. The patient was discharged on the 17th day of hospitalization.

Conclusions: While the Covid-19 disease continues, adequate resource consumption and personnel use are planned; On the other hand, primary prevention and follow-up of chronic diseases such as poor glycemic control in diabetic patients should not be forgotten. We think that these strategies will reduce mortality.

Keywords: Diabetic, Hyperglycemic Crisis, Covid-19, Mortality

S- 147

Ataxi Related To Carbamzepine Intoxication

Yağmur Gökhan Semerci[1], Talha Özsu[1], Ahmed Edizer[1], Bilal Yeniyurt[1], Burçe Serra Koçkan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Carbamazepine intoxication may present to the emergency department with acute and-chronic intoxications. Neurological findings are more prominent in carbamazepineintoxication. Carbamazepine (CBZ) inhibits sodium channels and can cause cardiacarrhythmias in its toxicity. It also affects muscarinic and nicotinic acetylcholine receptors, N-methyl-D-aspartate and central nervous system adenosine receptors. In addition to itsantiepileptic and trigeminal neuralgia analgesic effects, CBZ also has anticholinergic,antiarrhythmic, antidepressant, sedative and neuromuscular blocking properties. Treatmentoptions for CBZ acute poisoning or overdose initially include symptomatic therapy includinggastric lavage, cathartics, and diuretics. In addition, different extracorporeal therapy (ECTY)interventions such as charcoal hemoperfusion (HP), hemodialysis (HD) and plasma exchangehave recently been reported to be effective. In this case, we talked about the emergency roommanagement of a patient with carbamazepine intoxication.

Case: A 48-year-old male patient was admitted to our emergency department withcomplaints of confusion, balance disorder, dizziness, nausea, and vomiting. It was learned thathe had epilepsy in his history and used Tegretol 200 mg.No abnormalitywas found in his neurological examination, except for ataxia. The patient was monitored,vascular access was established, and blood samples were sent for laboratory tests (hemogram,biochemistry, arterial blood gas, serum carbamazepine level). Brain CT was performed for thedifferential diagnosis of blurred consciousness (image 1). Brain MRI and diffusion MRI wereperformed on the patient who was consulted with neurology (image 2). No pathology wasdetected in the brain CT and MRI of the patient who was evaluated by neurology. In the finallaboratory tests of the patient, carbamazepine level was found to be high (>29 µg/ml) (therapeutic level 4-10 ug/ml), other laboratory parameters were normal. In the follow-up ofthe patient who was hydrated and diuresis in the emergency department, his complaintsregressed, and the carbamazepine level, which was measured in the control, was found to be15 µg/ml. The patient, who was clinically and hemodynamically stable, was discharged withoutpatient control plan and recommendations as a result of neurology control.

Conclusions: Many systemic and neurological findings are prominent in carbamazepine poisoning.Carbamazepine intoxication should be considered and carbamazepine level should be sent tothe patients who were found to have used carbamazapine before, especially in patients whopresent with neurological findings and no other condition that could explain their clinicalcondition.

Keywords: carbamazepine, ataxia, intoxication

S- 130

Demographics and Mortality of COVID-19 ICU Patients: The Experience of a Turkish Tertiary Care City Hospital

Banu Arslan[1], Mehmet Necmeddin Sutasir[1], Yeter Cengiz[1], Amine Eslem Basibuyuk[1], Ramazan Guven[1]

[1]Basaksehir Cam and Sakura City Hospital

Background and aim: This study aims to evaluate the demographics and clinical outcomes of the Covid-19 patients admitted to the ICU during the pandemic period. We studied the effect of age, gender, respiratory support type, RT-PCR test positivity and types of treatment on ICU mortality.

Methods: Eighty-nine patients admitted to the Covid-19 ICU between January 1st, 2022, and March 2nd, 2022, were included in the study. Patients with missing study data were excluded from the study. Statistical data analysis was performed with SPSS Statistics software version 24.0. Categorical variables were expressed as percentages, and numerical values were expressed as mean, median, standard deviation, minimum and maximum.

Results: During the study period, eighty-nine patients were admitted to the Covid-19 ICU. While forty-eight patients were treated and discharged, forty-one patients died. Of the deceased, 58% (n:24) were male and 41% (n: 17) were female. PCR test positivity was detected in fifty-seven patients. Of fifty-seven patients, twenty-eight (%49) died. Six patients received IVIG, twenty-two patients received anti-cytokine therapy, and two patients received plasmapheresis. The mortality rate for these patients is as follows; 50% (n:3), 59% (n:13), and 50% (n:1). Twenty-eight patients required invasive mechanical ventilation during the ICU stay. Mortality was the highest among these patients at 85% (n:24).

Conclusions: Our study suggests that the mortality rate of male Covid-19 ICU patients was higher than females. Comparing to patients who received a high-flow oxygen therapy, the mortality rate in patients who received invasive mechanical ventilation was significantly higher, accounting 85%. Although PCR test positivity was detected in fifty-seven of eighty-nine patients, we believe that it didn't predict ICU mortality by itself. Despite increased experience, evidence-based therapies, and new encouraging treatments, this high mortality rates indicates that the nature and the course of the Covid-19 disease hasn't been fully understood and more research are needed in this field.

Keywords: Covid-19, Intensive Care Unit, Mortality Rate, High Flow, Mechanical Ventilation

S- 019

Dress Syndrome with Eosinopenia Induced by Topical Mixture for Acne Treatment: A Case Report

Muhammed Güner[1], Salih Fettahoğlu[1], Neval Aksoy[1], Türker Demirkıran[1], Serkan Doğan[1]

[1]Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

Background and aim: Drug reaction with eosinophilia and systemic symptoms (DRESS) is a hypersensitivity reaction that manifests as a result of certain medications, such as the anticonvulsants, sulfa-containing antimicrobials. It is a rare but potentially lethal disease characterized as a widespread eruption of skin lesions, fever, lymphadenopathy and multiple system involvement. This report is aimed to describe a case of DRESS syndrome occurs following the use of mixture for acne treatment; to present symptoms, laboratory and imaging work-ups.

Case: A 18-year-old woman with no past medical history admitted to emergency room with complaints of a 2-day history of high-grade fever, diffuse pruritic coalescing maculopapular rash started on the face and neck before spreading to all extremities and fascial edema with erythema. She described the use of topical mixture for fascial acne made in the pharmacy market during last 10 days. The patient had enlarged lympyh nodes in axillary, submandibular and inguinal regions. Leukocytosis with neutrophilia and eosinopenia was detected in the blood results. HAV, HBV, HCV, ANA tests were negative and blood culture yielded no organism. No visceral organ involment was observed. Peripheral blood smear result is still pending. Skin biopsy findings were compatible with early phase of DRESS Syndrome. A Registry of Severe Cutaneous Adverse Reactions (RegiSCAR) score of 4 gave a diagnosis of probable DRESS syndrome. She was given corticosteroid treatment with tapering dose over the course of disease. Disapperance of maculopapular rashes were observed one day after initiation of treatment. The complete remission of symptoms was achieved 3 weeks after admission.

Conclusions: DRESS syndrome is a complicated diagnosis with high fatality rate (up to 10%) which requires high degree of awareness about potential causative drugs, various clinical presentations with laboratory and histopathological findings. Although DRESS syndrome is associated with high eosinophil count, it is not a cornerstone of diagnosis as in this case. This report assist to guide physicians in emergency room to recognize and treat the disease earlier.

Notes (Optional): DRESS Syndrome

Keywords: Dress syndrome, acne, maculopapular rash, high grade fever, eosinopenia

S- 104

Air Embolism: rare complication of IV contrast-enhanced CT

Erhan Altunbaş[1], Sena Özge Aslan[1]

[1]Marmara University Pendik Training and Research Hospital, Department of Emergency Medicine

Background and aim: Vascular air embolism is known as the entry of air into the venous or arterial system through direct transmission and pressure difference. The severity of air embolism can vary depending on the rate of passage of air into the vascular system, its amount and location in the vascular system. It can generally be asymptomatic, but may present with symptoms such as dizziness, dyspnea, substernal chest pain, increased JVP (Jugular venous pressure). Common findings are sudden onset of hypotension, tachycardia, tachypnea, hypoxia, and deterioration in mental status.

Case: A 66-year-old male patient came to the emergency department with complaining of chest pain. His pain is stabbing and accompanied by back pain. His vital parameters and physical examination were normal except blood pressure: 159/97 and atrial fibrillation in ECG. Aortic dissection was suspected and thoracoabdominal CT angiography with IV contrast was performed.CT images taken after contrast injection showed that air images in the right atrium and right subclavian vein.After the CT scan, the patient's vital signs were normal. For close follow-up, the patient had cardiac monitored and given left lateral decubitus position. In the control CT images taken 12 hours after the patient, it was seen that the locations of the air images changed and decreased.In the echocardiography; that the right heart cavities were within normal limits, no air image was observed. The patient remained under observation for 48 hours. he did not develop any symptoms and signs.

Conclusions: Studies of iatrogenic air embolism after CT scan with contrast are limited. Most of them could not be detected because they were asymptomatic. Larger than 1 cm3 of air embolisms may present as sudden onset of dyspnea, chest pain, hypotension, tachycardia, tachypnea, worsening of mental status,cyanosis.For diagnosis, ECG, PAAC, thorax CT and echocardiography can be used.The patient can be placed in the Durant position during follow-up and treat with 100% oxygen support, volume replacement and inotropic support in the hypotensive state and hyperbaric oxygen therapy if possible. In some cases, air can be mechanically aspirated from the right atrium or ventricle angiographically.

Keywords: air embolism, computed tomography, case report

S- 154

ONLY SYMPTOM: VOMITING!

Nurdan Yılmaz Şahin[1]

[1]SBÜ Şanlıurfa Mehmet Akif İnan Eğitim Ve Araştırma Hastanesi

Background and aim: Vomiting is the expulsion of gastric contents by force by contraction of the abdominal muscles and diaphragm. It can be acute, chronic or recurrent. It constitutes approximately 10% of pediatric emergency admissions.

Methods: In the etiology of pediatric patients presenting with vomiting, there may be many causes from acute upper respiratory tract infection to increased intracranial pressure that may be fatal. Systematic and rapid differential diagnosis with detailed anamnesis and physical examination can be life-saving for the pediatric patient.

Results: Attention should be paid to 'Red flag' signs such as abnormal vital signs, acidotic respiration, presence of blood/bile in vomit, signs of GI obstruction, encephalopathy, papilledema. The age of the patient, the content-type-pattern of vomiting and accompanying symptoms are important in the differential diagnosis. According to age; Different causes such as metabolic diseases and anatomical malformations in newborns, poisoning in pre-school period, drug use and eating disorders in adolescents can be seen.

Conclusions: The onset, frequency, severity, time and content of vomiting should be well questioned and a preliminary diagnosis should be established with a detailed physical examination. Differential diagnoses should be made in line with the necessary laboratory and radiological examinations, and diagnosis-oriented treatment should be given in a short time.

Keywords: vomiting, child

S- 121

Iliac Artery Aneurysma Rupture

Cesareddin Dikmetaş[1], Yavuzselim Koca[1], Can Ilçin[1], Salih Fettahoğlu[1], Süreyya Tuba Fettahoğlu[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic

Background and aim: Isolated iliac artery aneurysms are extremely rare. It can grow without symptoms and therisk of rupture is high. Early surgery is recommended for aneurysms larger than 3 cm in size.Isolated iliac artery aneurysms are seen 7 times more frequently in advanced age and especiallyin men than in women. Its etiology is generally atherosclerosis. The main complaints areabdominal pain, claudication, neurological and genitourinary complaints. There may also becomplaints such as pelvic pain and a feeling of fullness. Rupture risk can reach up to 70% due toasymptomatic progression and operative mortality is also high. Surgical repair is the goldstandard in treatment. In this case, we talked about a patient with a ruptured iliac artery aneurysmwho came to the emergency department with rare symptoms and his management.

Case: An eighty-year-old male patient was admitted to our emergency department withcomplaints of constipation and inguinal pain. In the first evaluation of the patient, his vitalsigns were found to be stable. On physical examination, a pulsatile mass was detected in the leftinguinal region. Peripheral pulses were palpable bilaterally. No additional pathological findingwas detected.Abdominal computed tomography revealed extravasation at the level of the left internaliliac artery and the appearance of a hematoma around it (image-1). Since the patient's hematomawas not proximal, it was thought that he had a complaint of constipation because the pulse wasexerting pressure on the intestine. Meanwhile, the patient's vital examination revealed that he hadbecome hypotensive and tachycardic. The patient, who had a GCS of 15, oriented andcooperative, was urgently referred to the center of cardiovascular surgery by starting thenecessary medical treatment support.

Conclusions: Due to the asymptomatic progression of isolated iliac artery aneurysms, which areextremely rare, the risk of rupture is very high. Whether the aneurysm ruptures rather than its sizedetermines mortality. After diagnosis, cardiovascular surgery should be consulted and treatedquickly. It should be known that the mortality rate is high in ruptured cases despite the operation.In the emergency department, such atypical cases should be considered in the clinical approach,since they are life-threatening even if the heart rate can be taken, even if the complaint isconstipation.

Keywords: Mortality, aneurysm, aneurysm rupture, internal iliac artery

S- 189

Retrospective Analysis of Drowning Cases Evaluated in the Emergency Department

Dilay Satılmış[1]

[1]SBÜ Sultan 2 Abdülhamid Han Eğitim Ve Araştırma Hastanesi, Acil Tıp Kliniği,İstanbul, Türkiye

Background and aim: Drowning is a preventable cause of morbidity and mortality. Complications and mortality rates of drowning cases are high. Our study aims to reveal the epidemiological, demographic characteristics, clinical course, and mortality rates of the cases who applied to our emergency department (ED) due to drowning.

Methods: The files of drowning cases followed in the ED for 5 years between January 2018 and August 2022 were analyzed retrospectively and the data were evaluated according to Szpilman's clinical classification.

Results: A total of 45 patients admitted to ED with drowning were included in the study, and the patients were divided into 2 groups, 86.7% (n:39) were survivors and 13% (n:6) were non-survivors. 71.1% of the patients were male and 28.9% were female. The mean age was 33 years. 44.4% of the patients were admitted to the clinic, 20% were admitted to the ıntensive care unit, and 24.4% were discharged. The most common reason was suıcidal jumping (48.9%), followed by accidental falling into the water(26.7%) and drowning while swimming (24.4%). When evaluated according to laboratory findings, troponin, creatinine, and AST levels were statistically significantly higher in non-survıvor patients ($p<0.01$). PH, bicarbonate, and lactate levels in blood gas were significant in predicting mortality. The 30-day mortality rate was 13.3%. When we grouped the patients according to Szpilman's clinical classification and examined the relationship with mortality, 66.7% of the non-survıvor patients were Grade 6 and the mortality rate was significantly higher.

Conclusions: In conclusion, we observed that the increase in grade according to Szpilman's clinical classification is effective in predicting the mortality rate in drowning cases and is a useful measure that can be used as predictors that can help identify high-risk cases.

Keywords: Drowning, Szpilman's clinical classification system, Prognosis, Emergency department, 30-day mortality

S- 155

AN INFANT PRESENTING WITH STATUS EPILEPTICUS ASSOCIATED WITH BRAIN EDEMA AND INTRACRANIAL HEMORRHAGE DUE TO A MOTOR VEHICLE ACCIDENT: A CASE REPORT

Faruk Danış[1], Kaan Çelik[1]

[1]Bolu AIBU İzzet Baysal Training and Research Hospital, Department of Emergency Medicine

Background and aim: Traumatic brain injury (TBI) is frequently encountered in pediatric patients in emergency departments (ED). We wanted to share our case with the emergency medicine specialists and residents, who are facing serious injuries.

Case: An 8-month-old girl was brought to our ED after a motor vehicle accident. Her Glasgow Coma Score was 7. She was administered IV diazepam twice because she had seizures at the accident site. She was intubated according to the rapid sequence intubation procedures, and the patient's treatment was arranged in ED while waiting for the intensive care bed to be adjusted. For continued generalized tonic-clonic seizure in ED phenytoin and levetiracetam loads were applied to her. Midazolam infusion was started, and the infusion dose was increased until seizure-freeness. Computed tomography of the brain revealed subdural and subarachnoid hemorrhage, and cerebral edema; other system imaging was normal. As an antiedema treatment, hypertonic saline (3%) was given at a dose of 5 ml/kg by rapid infusion in 15 minutes, and continuous infusion was started. Supportive treatments were administered then she was transferred to the pediatric intensive care unit. It was learned that topiramate has loaded on the patient to benefit from the antiedema effect, and nutrition was started by the nasogastric tube at the 30th hour after the accident. She was discharged without any neurological disability, only under levetiracetam treatment after about 2 months of hospitalization.

Conclusions: According to the PECARN classification, our patient was classified as severe trauma because the accident was a motor vehicle accident involving a rollover, the patient was thrown out of the vehicle during the accident, and the patient under the age of 2, fell from a height of more than 90 cm. It is known that optimal management of childhood TBI in the ED has seriously positive effects on long-term prognosis. We wanted to share with you the management process of the patient in the ED, who is being followed up in our hospital with almost zero sequelae because of well-organized emergency and supportive treatments.

Keywords: traumatic brain injury, seizure, intracranial hemorrhage, brain edema, pediatric emergency

S- 099

Relationship Between HEART Score and Extent of Coronary Artery Disease

Yusuf Ziya ŞENER[1], Ari Avni ERBİL[2]

[1]Beypazarı Devlet Hastanesi, Kardiyoloji Bölümü
[2]Sağlık Bakanlığı Acil Sağlık Hizmetleri Genel Müdürlüğü, Sağlık Afet Koordinasyon Merkezi

Background and aim: Chest pain is one of the most common cause of emergency room admission and determining high risk patients who needs further hospitalization and coronary angiography is important in order to reducing costs and length of hospital stay. HEART score is developed for risk stratification in patients who applied emergency room with undifferentiated chest pain. We aimed the evaluate relationship between HEART score and coronary anatomy in patients who underwent coronary angiography.

Methods: We screened retrospectively the patients who were referred for coronary angiography between June 2021 and July 2022 in Beypazarı State Hospital and included cases with accessible coronary angiography images and datas requiring for HEART score estimation. Modified Gensini score was calculated from angiography images.

Results: A total of 84 patients were enrolled. Mean age of the cases was 58.6 ± 6.6 years and 65.5% of them (n=55) were male. Hypertension was present in 35 (41.7%) patients, diabetes was present in 24 (28.6 %) patients and hyperlipidemia was presrent in 23 (27.4%). Baseline characteristics were presented in Table-1. Significant coronary artery stenosis was detected in 59 (70.2 %) patients and 44 of them underwent percutaneous coronary intervention while coronary artery by-pass grafting was performed in 8 cases. Three vessel disease was established in 9 (10.7 %) patients. Median modified Gensini score was 61 (1-115) and median HEART score was 5 (2-8). A strong correlation between modified Gensini score and HEART score was detected ($r=0.771$; $p<0.001$). Logistic regression analysis was performed and variables with p value lower than 0.2 were further included in multivariate regression analysis and only HEART score was detected to be predictor of three vessel disease [OR:3,75 (1.59-8.81); $p=0.002$].

Conclusions: HEART score is a useful score for specifying high risk patients with chest pain and it is also correlated with coronary artery disease extension. Moreover, HEART score also predicts three vessel disease.

Keywords: HEART Score, Coronary artery disease, Acute coronary syndrome

S- 087

Pneumo Oculi Following Sneeze: Case Report

Ayla Köksal[1], Cesareddin Dikmetaş[1], İsmail Enver Obuz[1], Aydan Arife Ensari[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Presence of air in the orbit and periorbital tissues is called orbital emphysema . Frontal process of the maxillary bone, lacrymal bone and lateral wall of the ethmoid bone (lamina paprycea) forms the medial wall of the orbit. Maxillary sinus and frontal sinus are located adjacent to orbit base and orbit floor, respectively. Any possible defect on these bones causes orbital emphysema .The aim of this report was to present a case who developed periorbital emphysema following sneezing after the medial wall of the left orbit fracture.

Case: The man patients who seventeen years old consulted to the Emergency Room (ER) around 9 pm as a result of having swell on the left eye. The patient has beaten ten days ago and the same day he applied to the emergency room then he closed the nostrils while sneezing after that his eye was swollen. During the time of medical examination her vital signs are stable, left eye is swollen and left eye is closed due to edema, crepitation exists on left lower eye lid and when the eye lid was opened, her vision was natural and light reflex was positive. (ımage 1). According to the patient's maxillofacial computer tomography, free air densities were existing at left retrobulbar area and on the medial wall of the left orbit was broken.(image 2,3).For the patient, consultation was made to the otorhinolaryngology, eye, plastic surgery clinic. Both of them gave medical treatment to him and outpatient clinic was suggested.

Conclusions: The eye is adjacent to many bones in the face and is especially connected to the nose and nasalacrimal canal. While the mouth is closed after trauma to the nose and other facial area, air can escape around the eyes due to trauma after sneezing. These patients can apply to the emergency department. In this context, emergency physicians should know that this air has a benign course and can be treated with antibiotherapy, and they should consult with eye clinic, plastic surgery and otorhinolaryngology and follow up with relevant clinics.

Keywords: eye, trauma, orbita, emphysema

S- 139

ENDOVASCULAR TREATMENT OF ACUTE ISCHEMİC STROKE: DEMOGRAPHİCS, CLİNİC AND PROGNOSİS

Ümit Görgülü[1]

[1]Ankara City Hospital, Neurology Clinic

Background and aim: Stroke is the second leading cause of death and a major cause of disability worldwide. The phrase "time is brain" emphasizes that human nervous tissue is rapidly and irretrievably lost as stroke progresses and that therapeutic interventions should be emergently pursued. In this study, we aimed to present demographic, clinical and prognostic data in the endovascular treatment (ET) of acute stroke.

Methods: The files of patients who were admitted with the diagnosis of acute ischemic stroke and received ET between January 2020 and May 2022 were evaluated retrospectively. We recorded the clinical and demographic characteristics and endovascular procedure characteristics of all patients.

Results: Of the 147 patients included in the study, 75 were female and 72 were male. The median age was 70 (20 - 93), and 72 (20 - 93) in female and it was 67.5 (31 - 90) in male. Received iv thrombolytic therapy together with mechanical thrombetomy in 13 (8.8%) patients. Hypertension in 59.18% of the patients, coronary artery disease in 32.65%, diabetes mellitus in 24.49%, atrial fibrillation in 21.09%, heart valve replacement in 11.56%, 11.56%, had stroke, 7.48% had heart failure and 4.08% had hyperlipidemia. Antiplatelet drug use was used in 39.46% of the patients and anticoagulant drug use in 24.49% of the patients. The median National Institutes of Health Stroke Scale score at admission was 16 (5 - 25), with 52.38% moderate, 28.57% moderate-severe, 10.20% severe and 8.84% minor stroke. The median Alberta Stroke Program Early CT Score was 9 (2 - 10) and the median collateral score was 2 (0 - 3). 94.56% patients had anterior circulation (55.10% right side and 39.46% left side), 5.44% had posterior circulation occlusion. Our successful recanalization rate (The trombolysis in Cerebral Infarction, TICI: 2b and 3) was 80.27%. At the end of the 3rd month, 36.73% of the patients had a good prognosis (The Modified Rankin Scale, mRS; 0-2) and a 27.21% mortality rate. The etiology was large vessel atherosclerosis in 42.2%, cardioembolic stroke in 40.1%, and unclear in 17.7% of patients.

Conclusions: Patients with large vessel occlusion suitable for ET can be successfully treated with early referral to stroke centers.

Keywords: Acute ischemic stroke, Endovascular stroke treatment, Mechanical thrombectomy, demography, clinic

S- 151

A SWİNGİNG HEART

Nazlı Görmeli Kurt[1], Burak Kuzucu[1]

[1]ankara Şehir Hastanesi Acil Tıp Kliniği

Background and aim: Chest pain and shortness of breath are the most common reasons for admission to emergency services. 10% of these applications result in ACS, and pericardial effusion accounts for 0.3% of chest pains. In general, the presence of pericardial effusion is determined as a result of lung imaging, while ACS is excluded in the foreground in chest pain. Pericardial effusion is most commonly caused by trauma and malignancy, and in this case, we will describe pericardial effusion due to malignancy.

Case: A 20-year-old male patient was admitted to our emergency department with complaints of chest pain and shortness of breath. The patient's ECG was in normal sinus rhythm, There is a 13x7 mm mass in the anterior mediastinum of the patient with a 4.5 cm pericardial effusion in the CT report. The patient was shared with Cardiology and ECO was planned by Cardiology. In ECHO, there is pulmonary insufficiency and the pulmonary artery pressure is 43 mmHg. An anterior mass pressing on the right ventricle (SWINGING HEART) was also recorded in the ECHO. The anterior mass compresses the pulmonary artery for a while and oxygen saturation decreases. Further examinations are performed in the intensive care unit and service where the patient is hospitalized, and a preliminary diagnosis of Germ Cell Tumor has been made.

Conclusions: In a study, if the primary cause of pericardial effusion was malignancy, the one-year mortality was 80%. In the study, pericardial effusion presents with chest pain more frequently than Beck's Triad (JVD, decrease in systemic arterial pressure, decrease in heart sounds). As in our case, a mediastinal mass should be among the preliminary diagnoses of patients presenting to the emergency department with chest pain.In a study, if the primary cause of pericardial effusion was malignancy, the one-year mortality was 80%. In the study, pericardial effusion presents with chest pain more frequently than Beck's Triad (JVD, decrease in systemic arterial pressure, decrease in heart sounds). As in our case, a mediastinal mass should be among the preliminary diagnoses of patients presenting to the emergency department with chest pain.

Keywords: swinging heart, pericardial effusion

S- 082

The Correlation Between Red Cell Dustribution Width And In-Hospital Mortality In Elderly Patıents Applied To The Emergency Services

Yusuf Şahin[1], Pınar Yeşim AKYOL[2], Zeynep KARAKAYA[2], Fatih Esad TOPAL[2], Adem ÇAKIR[3]

[1]Şanlıurfa Training and Research Hospital
[2]İzmir Katip Çelebi University Atatürk Training and Research Hospital
[3]Çanakkale Mehmet Akif Ersoy State Hospital

Background and aim: Red blood cell distribution width is a parameter used to in the whole blood count examination. Recent studies suggest that red blood cell distribution is associated with increased mortality in clinically significantpredictive value in mortality in many diseases. We compared the red blood cell distribution values of the patients who were discharged from the hospital and the RDW levels of the patients who were hospitalized and investigated whether they were associated with in-hospital mortality

Methods: This study is a cross-sectional, retrospective study performed in the emergency department. A total of 843 people (435 study(ex) group and 408 control group) who did not meet the exclusion criteria were included in the study. Red blood cell distribution values were evaluated according to the study and control groups.

Results: The mean value of red blood cell distribution in the study(ex) group was found to be 16.03. In the control group, the mean value of red blood cell distribution was found to be 14.67. When compared with Mann Whitney U test, it was shown that red blood cell distribution value increased significantly in the study(ex) group compared to the control group and was associated with mortality ($p < 0.05$)

Conclusions: The mean red blood cell distribution levels were significantly higher in ex-hospital patients compared to the control group. The high red blood cell distribution value has been shown to be a predictive value for mortality.

Keywords: RDW, Mortality, Emergency Medicine

S- 135

ALCOHOLİC HEPATİTİS AND SATURDAY NİGHT PALSY

Nazlı Görmeli Kurt[1], Beyza Kaynar[1], Burak Kuzucu[1]

[1]ankara Şehir Hastanesi

Background and aim: The low hand develops with the paralysis of the radial nerve as a result of damage to the radial nerve for various reasons, especially due to traumatic or compression. Among the non-traumatic entrapment neuropathies of the upper extremity, the least affected nerve is the radial nerve. The most common cause (21%) is compression paralysis during sleep (Saturday night palsy).

Case: A twenty-eight-year-old male patient noticed weakness in his right wrist and right hand fingers that started when he woke up in the morning. He had no additional symptoms. In the physical examination of the patient, there was loss of strength (low hand) in the dorsiflexion position of the right hand fingers and wrist. Sensory examination and the rest of the physical examination were normal. The patient had an alcohol intake of approximately 3 liters the previous night (Saturday night) and stated that he had fallen asleep on his right arm.In laboratory examinations;AST:265 ALT:348ALP:829GGT:1395Total Bil.:2.6 Direct Comp.:1.8There was no other pathology other than. The patient was diagnosed as radial nerve entrapment neuropathy (Saturday night palsy) and alcoholic hepatitis due to external compression.

Conclusions: In our case, radial nerve palsy due to compression presenting with low hand symptom was discussed; The radial nerve is the continuation of the posterior cord of the brachial plexus and originates from the C5-T1 spinal nerves. The radial nerve runs along the lateral wall of the axillary cavity, descends obliquely from the medial side of the humerus to the posterior of the humerus and down through the spiral groove. It innervates the triceps muscle and passes between the two heads of the triceps muscle. Then the anconeus muscle extending to the forearm; In the distal arm, it innervates the brachioradialis, extensor carpi medialis longus and brevis muscles. Thus, it provides forearm and wrist extension, forearm flexion in neutral position, forearm supination, and thumb extension and abduction.In conclusion, peripheral nerve injuries should be considered primarily when a patient has a low hand after sleep, but differential diagnosis should be well evaluated without ignoring traumatic and non-traumatic causes that will require emergency intervention.

Keywords: saturday night palsy, alcoholic hepatitis

S- 083

THE EFFECT OF PROGNOSTIC NUTRITIONAL INDEX ON IN-HOSPITAL MORTALITY IN PATIENTS OVER 65 YEARS OF AGE DIAGNOSED WITH COMMUNITY-ACQUIRED PNEUMONIA

Bircan Özçelik[1], Burcu Genç Yavuz[2], Şahin Çolak[2]

[1]başakşehir Cam Ve Sakura Şehir Hastanesi
[2]SBÜ Haydarpaşa Numune Eğitim Ve Araştırma Hastanesi

Background and aim: CAP is one of the most common causes of hospitalization and mortality in patients aged65 and over.Early diagnosis, appropriate treatment, and rapid admission to the service or intensive care unit are of vital importance in order to prevent poor prognosis inCAP patients.The aim of this study is to investigate the effectiveness of PSI, CURB-65 and PNI in predicting in-hospital mortality in patients aged65 and over with a diagnosis of CAP

Methods: this study, patients aged65 and over who applied to the Haydarpaşa Numune SUAM EM Clinic between Jan2018-Dec2020 and were diagnosed with CAP were retrospectively analyzed. Demographic characteristics of the patients included in the study, vital parameters, admission blood sugar level, consciousness status at admission,presence of pleural effusion in chest Xray or tomo, laboratory test results,place of residence, comorbid disease and in-hospital mortality information were scanned and recorded from the hospital registry system. Pneumonia severity index,CURB-65 and Prognostic Nutritional Index scores were calculated from data obtained. The patients were divided into two groups, with and without in-hospital mortality, and the efficiency of the above-mentioned parameters in predicting mortality was compared

Results: The mean age of 192 patients included in the study was 79.33±7.09 years, and the mortality rate was 20.3%. A PNI score of ≤33 in CAP patients had a sensitivity of 89.7% and a specificity of 56.21% in predicting in-hospital mortality (OR: 0.759; 95% CI: 0.692-0.818, p<0.001). When the cut-off value of the PSI score was >130, its sensitivity in predicting in-hospital mortality was 84.62% and its specificity was 64.05% (OR: 0.795; 95% CI: 0.731-0.850, p<0.001). For CURB-65, when the cut-off value was >2, the sensitivity in predicting in-hospital mortality was 61.54% and the specificity was 69.28% (OR: 0.702; 95% CI: 0.632-0.766, p<0.001). The negative predictive values of all three scoring systems for predicting in-hospital mortality were 95.6% in PNI, 94.2% in PSI, and 87.6% in CURB-65. In our study, PNI was found to be the scoring system with the highest negative predictive value

Conclusions: PNI score can be used as a new indicator for predicting CAP prognosis and treatment planning in the management of patients aged65and over with a diagnosis of CAP

Keywords: Geriatrics, community-acquired pneumonia, prognostic nutritional index, pneumonia severity score

S- 164

The role of immature granulocyte in patients with complicated appendicitis

Utku Murat Kalafat[1], Bilal Yeniyurt[1], Melih Uçan[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Acute appendicitis (AA) is the most common reason for abdominal surgery in emergency admissions. The aim of this study was to examine the value of immature granulocyte in differentiating complicated appendicitis cases from non-complicated appendicitis cases in patients operated on with suspected acute appendicitis in clinical and examination results.

Methods: In this retrospective study, all patients operated for 1 year by general surgery for suspected acute appendicitis were included in the study. The cases with phlegmenous, suppurative, perforation and abscess were included in the complicated appendicitis group and the patients were divided into two groups (complicated-non-complicated). Preoperative, leukocyte, Neutrophil, granulocyte and CRP values of the patients were recorded.

Results: The number of leukocytes, Neutrophils and immature granulocytes was significantly higher in the complicated appendicitis group compared to the non-complicated appendicitis group. The AUC values of these variables were also significant between the groups (0.590, 0.588, 0.559, respectively), and as a result of the regression analysis of immature granulocytes, we found that p=0.03, OR:3333,175, CI 95%: 15.578-713172,642.

Conclusions: Komplike apandisit nonkomplike apandisit ayrımında granülosit sayısının kullanışlı bir preoperatif belirteç olduğunu düşünmekteyiz.

Keywords: Appendicitis, complicated appendicitis, acute abdomen diagnosis, immature granulocytes, inflammatory markers

S- 081

Trauma-specific frailty index in geriatric trauma patients defined according to the old and new World Health Organization age classifications

Rümeysa Süt[1], Adem Az[1], Özgür Söğüt[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Background and aim: World Health Organization (WHO) updated its age-specific categories in 2017 and the definition of elderly has been revised. Currently, the WHO categorizes individuals aged 0-17, 18-65, 66-79, and ≥80 years as juvenile, young, middle-aged, and elderly, respectively. We compared the 15-variable trauma-specific frailty index (TFSI) and traditional injury scoring systems to determine trauma severity and predict discharge disposition in geriatric trauma patients based on the old and new WHO age classifications.

Methods: This prospective, observational, single-center study included geriatric patients aged ≥65 years with blunt trauma. We categorized patients as elderly based on the old or new WHO age classification into group I (aged 65-79 years) and group II (aged ≥80 years), respectively. At admission, we used traditional injury scoring systems (e.g., the Glasgow coma scale [GCS], injury severity score [ISS], and revised trauma score [RTS]) to determine trauma severity. We compared the TFSI and traditional injury scoring systems between the patient groups and evaluated them for correlations.

Results: We included 169 geriatric patients (80 and 89 in groups I and II, respectively). Geriatric trauma patients admitted to the ED were more commonly females (59.8%), and their trauma resulted, mainly, from spontaneous falling (91.1%). The mean Trauma-Specific Frailty Index score was significantly higher among females than males (p=0.025) and group II than group I (p=0.021). No statistically significant differences were found between patients aged 65–79 and ≥80 years in terms of mean ISS, RTS, and GCS scores. In addition, the mean TSFI score was significantly higher among patients aged ≥80 years compared to those aged 65-79 years. In addition, no significant correlation was observed between the TSFI, ISS, RTS, and GCS scores in group I or II. Finally, in group I, the mean TSFI score was significantly higher for hospitalized patients than for discharged patients. However, in group II, we observed no statistically significant difference in the mean TSFI score between hospitalized and discharged patients.

Conclusions: The 15-variable TSFI score was superior to ISS, RTS, and GCS scores for guiding the treatment and predicting the discharge disposition in geriatric trauma patients aged 65-79 years.

Keywords: geriatrics, traumatology, frailty, wounds, injuries

S- 052

Evaluation Of Cases Applying As Contact With Rabies Risk – Does Exposure Characteristics Change?

Mehmet Ceylan[1], Mustafa Ercan Günel[2]

[1]Clinic of Infectious Diseases, İzmir Bakırçay University Çiğli Training and Research Hospital, İzmir, Turkey
[2]Emergency Medicine Clinic, İzmir Bakırçay University Çiğli Training and Research Hospital, İzmir, Turkey

Background and aim: Since rabies is a fatal disease in almost every case, prevention approaches are life-saving. Prophylaxis applied early and correctly is 100% effective. Although rabies cases have decreased in our country in recent years, there has been a significant increase in the number of rabies-risk contacts. Therefore, correct information and practice about post-exposure prophylaxis is important. In this article, patients who came to our center with an application for animal bite or trauma were evaluated in terms of demographic data, wound characteristics and the type of the attacking animal.

Methods: A questionnaire that we prepared for the patients who applied to our rabies vaccination outpatient clinic between January 15 and June 15, 2022, was filled and then examined.

Results: Questionnaire forms filled by 244 patients in total were evaluated. Demographic characteristics of the cases, the type of animals and the way the event occurred are presented in Table 1. Considering the ages of the cases defined as rabies risky contact, it was found that the mean age was 31.8±16 in dog exposures and 27.7±17.4 in cat exposures; It has been observed that a significant portion of cat contacts are under 18 years old (41%), while a significant part of dog contacts are over 18 years old (76%). Of the cat contacts, 56.4% were female and 43.6% were male, and the difference between genders was significant. On the other hand, 45.5% of the dog contacts were female and 54.5% were male, and the difference was not statistically significant.

Conclusions: It is noteworthy that most of the exposures occur after contact with cats, with the female gender making up a significant part of it. Especially in children under the age of 18, the increased exposure rate is associated with nurturing or loving behaviors. In addition, the fact that the vast majority of all attacks occur as a result of provocation by animals shows the importance of changing attitudes towards animals and raising awareness.

Keywords: vaccine, post-exposure prophylaxis, rabies

S- 030

Effects of Guided Meditation and Yoga on Wellbeing, Stress and Anxiety levels in Emergency Medicine Residents: A Randomized Controlled Trial

Özlem Ecem Oğrak[1], Merve Ekşioğlu[1], Tuba Cimilli Öztürk[1]

[1]SBÜ Fatih Sultan Mehmet Eğitim Araştırma Hastanesi

Background and aim: The main objective of this study is to compare the effectiveness of two different types of intervention practices (guided meditation vs. yoga) and a noninterventional control group in mitigating the effects on the stress and anxiety levels and well-being of emergency medicine residents.

Methods: A sample of 81 emergency medicine residents were recruited from Emergency Medicine Clinics in Istanbul. The study's design included stratified-randomized controlled repeated measures with three groups: a yoga + meditation intervention group, a guided meditation-only intervention group, and a noninterventional group. Participants were randomly assigned to the aforementioned three groups. Participants in the intervention groups received a 6-week practice either in guided meditation or yoga. The yoga intervention that was used in this study was based on a gentle version of the Hatha yoga tradition. The participants in the meditation group received audio-guided meditations. Beck Anxiety Inventory, Perceived Stress Scale, and Adult APGAR scores were measured at baseline, Week 3, and Week 6.

Results: Anxiety and stress levels decreased significantly ($p<0.001$) from baseline to 6th week in both the guided meditation and yoga intervention groups. Anxiety levels decreased by an average of 6.52 points in the yoga+-meditation group and by 3.78 points in the meditation group in the 6th week. The stress level decreased by 2.52 points on average in the guided meditation group, while it decreased by 5.29 points in the yoga + meditation group. According to the evaluation made in the 6th week, the mean APGAR score was 5.78±1.05 in the control group, 6.59±1.25 in the meditation group, and 7.33±1.07 in the yoga + meditation group; The APGAR score had the lowest score in the control group. There is a statistically significant difference between the APGAR scores of the intervention groups from baseline to 6th week ($p<0.001$).

Conclusions: As a result, it was determined that yoga and meditation practices decreased emergency medicine residents' anxiety and stress levels and increased their well-being. These findings can provide useful information to wellness leaderships in emergency departments and have important implications for clinicians in various practice settings particularly counseling centers in emergency residency programs.

Keywords: anxiety, stress, well-being, emergency medicine, yoga

S- 159

CPR Experience of a Newly Established Emergency Medicine Department

Gökhan Eyüpoğlu[1], Mustafa Oğulcan Nadar[1], Ertuğrul Altuğ[1], Semih Korkut[1], Ramazan Güven[1]

[1]Basaksehir Cam and Sakura City Hospital, Emergency Department

Background and aim: Cardiopulmonary resuscitation is essential in the Emergency Department. CPR treatment is done with a team and requires compliance. In this study; We aim to review CPR cases and see the total number of cases, mortality rates, patients' gender and age characteristics and see if being a newly established department makes any difference.

Methods: This is a retrospective, descriptive study conducted by examining the computer-based patient records of patients admitted to a newly established tertiary city hospital emergency service between 20.06.2020 and 31.12.2020. All 85 CPR cases who were admitted to the emergency department for a period of 6 months were included in the study. The age, gender and mortality rates were examined.

Results: 57.7% (n=49) of our patients were male. Mean age is 63.211 +-31.2 years. The percentage of female patients were 47.05%(n=32) and the mean age is 64.39 +-29.7 years among excitus patients. Mean age of excitus male patients is 60.86 +- 36.6, whereas female patients' mean age is 68.37 +-38.2 years.

Conclusions: Statistical analysis of the CPR procedure was found to be consistent with previous studies, despite the new established Emergency Service. Percentage of total male CPR patients was higher than the female patiensts, and the mean age of male patients was younger. Also, mean age of total ROSC patients is lower than the excitus patients. We believe that this similarity results from being an Emergency Medicine Clinic.

Keywords: CPR, Mortality, Resuscitation, Emergency Medicine Department

S- 074

Clinical differences in cases with upper and lower gastrointestinal bleeding

Özgür Şahan[1]

[1]Hatay Eğitim ve Araştırma Hastanesi

Background and aim: In our study, we aimed to contribute to the literature by evaluating the differences between upper and lower gastrointestinal bleeding.

Methods: Our study was carried out retrospectively with 430 patients hospitalized in Hatay Training and Research Hospital Emergency Department between 01.09.2021 and 31.08.2022 with the diagnosis of GI bleeding. Age, gender, symptoms and signs, vital parameters, drug and comorbidity history in the etiology of GI bleeding, blood values and some blood parameters, transfusion status and mortality levels of the cases with upper and lower GI bleeding were compared. The distribution of quantitative data was evaluated with the Kolmogrov Smirnov test. Mann Whitney U test was used in the analysis of non-parametric data. Chi-square test was used to compare qualitative data.

Results: In our study, 367 (85.3%) of the cases had upper GI bleeding. The median age of the patients was 69.5 (IQR:26) years, and the patients with lower GI bleeding were older ($p<0.05$). 60.9% of the cases were male and no difference was found between the groups in terms of gender ($p>0.05$). While the most common symptoms were melana and hematemesis in cases with upper GI bleeding, hematochezia was found in lower GI bleeding cases ($p<0.05$). There was no difference in vital parameters of the groups ($p>0.05$). While the history of previous bleeding and the use of nonsteroidal anti-inflammatory drugs were significantly higher in patients with upper GI bleeding, the frequency of anticoagulant bleeding was significantly higher in patients with lower GI bleeding ($p<0.05$). There was no difference between the groups in blood urea nitrogen, creatinine, white blood cell, hemoglobin, hematocrit, platelet and INR values ($p>0.05$). The amount of ES given to patients with lower GI bleeding was found to be higher ($p<0.05$). There was no difference between the groups in terms of length of hospital stay and mortality ($p>0.05$).

Conclusions: Although some differences were found in upper and lower GI bleedings in our study, the important thing is to diagnose the patient and start treatment as soon as possible. Therefore, we believe that there is no significant clinical or laboratory difference between these two groups.

Keywords: Emergency medicine, gastrointestinal bleeding

S- 187

COMPARİSON OF CİRCULAR CAST AND SPLİNT METHODS İN THE TREATMENT OF TORUS FRACTURE

Ali Şişman[1], Ali Can Çiçek[2]

[1]Adnan Menderes University Training and Research Hospital, Department of Orthopedics and Traumatology, Aydın, Turkey
[2]Ağrı Training and Research Hospital, Department of Orthopedics and Traumatology, Ağrı, Turkey

Background and aim: Forearm and wrist fractures account for 7% of all pediatric fractures admitted to the emergency department. One of the most common among these is torus fractures. Long arm circular cast (LACC), which is a more stable treatment method, can be applied in the treatment. However, in recent years, less stable, light and easy-to-apply methods such as long arm splints(LAS) have been suggested. The aim of this study is to compare the effectiveness of LAS application with LACC.

Methods: Seventy-six cases of pediatric patients admitted to the emergency department with a torus fracture between January 2019 and December 2022 were retrospectively analyzed. Cases with multiple trauma, diagnosed with osteogenesis imperfecta and treated other than splint or LACC were not included in the study. Among the included cases, two groups were formed as those who applied plaster and splint. Control radiographs were taken at the fourth and eighth weeks. The results were compared between the groups.

Results: LACC was applied to 31 of the 69 cases included, and LAS was applied to 38 of them. There was no difference between the groups in terms of age, gender, side, duration of immobilization. The overall satisfaction score of the parents with LACC treatment was 8 ± 0.6, while it was 8.8 ± 1.2 with LAS treatment (p=0.02). While the overall satisfaction score of the children with LACC treatment was 7.5 ± 0.8, it was 8.6 ± 0.9 with LAS treatment (p<0.01). All patients in both groups had union at the eighth week controls. Urticaria was detected in two cases in LACC group and in one case in LAS group. While desquamation was seen in two cases in LACC group, it was not seen in LAS group. There was no difference between the groups in terms of general complications.

Conclusions: Comparing LAS and LACC in the treatment of torus fractures; LAS application has higher satisfaction scores. There is no difference between the clinical results of both methods and they are applicable methods.

Keywords: cast, splint, torus fractures

S- 027

A Rare Cause of Chest Pain; Spontaneous Mediastinum

Mehmet Necmeddin Sutasir[1], Banu Arslan[1]

[1]Basaksehir Cam and Sakura City Hospital

Background and aim: Spontaneous pneumomediastinum is a rare clinical condition defined as the presence of free air in the mediastinum. It develops in the absence of any surgical or medical procedure, chest trauma, or mechanical ventilation. The course of the disease is usually benign and it heals spontaneously. Hereby, we present a 25-year-old female patient with chest pain, shortness of breath, and dysphagia. With this case, we aimed to emphasize that pneumomediastinum should be considered in the differential diagnosis of chest pain.

Case: A 25-year-old female patient was admitted to our emergency department with chest pain, shortness of breath, difficulty swallowing, and a feeling of obstruction in the throat. The chest pain that was started two days ago was stabbing in character, traveled to the neck, and associated with breathing. The shortness of breath was mild, and dysphagia was precipitated with solid foods. She didn't report any chronic medical conditions. There was no history of trauma, recent surgical intervention, excessive exercise, coughing, vomiting, vigorously shouting, lifting heavy objects, using inhaler drugs, or substance abuse. Sinus tachycardia was present in electrocardiography (ECG). In the chest X-ray, the trachea was in the midline and there was no difference in aeration (Picture 1). Therefore, a non-contrast CT scan was performed (Figure 1). In the CT scan, free air images in the mediastinum extending from the extrathoracic trachea to the subcarinal area were detected (Figure 2).Since the patient was medically stable and respiratory distress was mild, 2 l/min oxygen therapy through nasal cannula started in the emergency room. Later, the patient was admitted to the thoracic surgery department. During the 3-day hospital stay, she had remained medically stable with no fever, tachypnea, or tachycardia. No antibiotics were administered. Follow-ups after the hospital discharge were scheduled.

Conclusions: Spontaneous pneumomediastinum is a rare medical condition with a benign course. On the other hand, life-threatening complications can develop. Spontaneous pneumomediastinum should always be in the differential diagnosis list in young males with stabbing chest pain, dyspnea, and dysphagia. Even though chest X-ray is normal, in case of a high index of suspicion chest CT should be performed.

Keywords: Chest pain, Pneumomediastinum, Dysphagia, Dyspnea

S- 033

TENSİON PNEUMOTHORAX AFTER RADİOTHERAPY

Ceren Kabasakal[1], Göknur Öztürk[1], Mehmet Nuri Bozdemir[1]

[1]Antalya Eğitim Araştırma Hastanesi, Acil Tıp Anabilim Dalı

Background and aim: Summary: Pneumothorax is a rare complication of radiation therapy to the chest. The proposed pathogenesis is radiation-induced fibrosis promoting subpleural bullae formation causing ruptures resulting in pneumothorax. Key words: Radiotherapy , Pneumothorax , Lung Cancer, Chest tubeLogin: Pneumothorax is one of the rare complications in thoracic radiotherapy. Today, radiation therapy is an integral part of the treatment of various intrathoracic and chest wall malignancies, primarily breast carcinomas, bronchogenic carcinomas and lymphomas. Patients receive radiation therapy as palliative therapy, curative therapy, or a combination of chemotherapy and surgery, or both. The lung is one of the most sensitive tissues to ionizing radiation used in different modalities of radiation therapy. Common pulmonary complications associated with radiation therapy range from radiation pneumonia to pulmonary fibrosis, although pneumothorax has been rarely reported.

Case: Case: A 67-year-old male patient was brought to the emergency room by 911 because of abdominal pain and nausea. He started that his pain had been increasing since the night. In the physical examination of the patient who was tachypneic and hypotensive (80/50), there were no respiratory sounds in the left lung. There was widespread defense in the west.

Conclusions: Conclusion: Although spontaneous pneumothorax cases were reported after thoracic radiotherapy, no tension pneumothorax cases were encountered.

Notes (Optional): Argument: Many pulmonary complications occur after radiotherapy. Although the pathogenesis of most of them has been determined, the pathogenesis of pneumothorax has not been fully determined.Radiation-induced pulmonary changes, apical pleural and parenchymal damage were thought to be due to spontaneous pneumothorax development.Focal emphysema and fibrosis due to radiation therapy increase the likelihood of formation and rupture of subplural bullae.Another possible mechanism involves post-radiation shrinkage of centrally located occlusive tumor and partial resolution of the occlusion leading to check valve effect.This results in air trapping, alveolar hyperinflation, and rupture, thus leading to subsequent pneumothorax.A retrospective review by Chan et al identified a total of 25 pneumothorax patients after retrospectively examining a total of 546 solid cancer patients. Eight of these twenty-five patients had previously received radiotherapy.

Keywords: Radiotherapy, Pneumothorax, Lung Cancer, Chest tube

S- 166

Accuracy of the Smart Watch (Apple Watch Series 6) Oxygen Saturation Measurement in Patients with COPD Exacerbation; Comparison with Arterial Blood Gas Test and Standard Pulse Oximeter.

Banu Arslan[1], Kemal Sener[1], Ramazan Guven[1], Semih Korkut[1], Mehmet Necmettin Sutasir[1]

[1]Basaksehir Cam ve Sakura Sehir Hastanesi

Background and aim: Smart watches have been gaining tremendous attention in recent years. Even though most of these devices aren't intended for medical diagnosis, it seems they have become widely accepted by patients. In this study, we aimed to determine the accuracy of the reflectance pulse oximeter feature of the Apple Watch 6 in patients with acute exacerbation of COPD by comparing it with blood gas analyses, the gold standard, and the finger pulse oximeter.

Methods: This is a single-center, prospective, and cross-sectional study conducted with adult patients who were admitted to the emergency medicine department with an acute exacerbation of COPD during the 1-year study period. Patients presented with cardiac arrest, life-threatening symptoms, patients who are severely hypoxic (Spo2 <70%), obviously icteric, pregnant, and have a tattoo on non-dominant wrist were excluded from the study. Vital signs, blood oxygen level and heart rate measurement with Apple watch were done simultaneously. Blood gas samples drawn by emergency medicine physicians.

Results: The data of 167 patients, 99 male (59.3%) and 68 female (40.7%), were analyzed. The correlation coefficient was 0,940 for Apple Watch SpO2- ABG SaO2 (95% CI = 0,918-0.956; P < 0.05) and 0,994 for finger pulse oximeter SpO2- ABG SaO2 (95% CI = 0,992-0.996; P=0.772). The results of the Bland- Altman analysis showed that the mean error was -0.458 between Apple Watch SpO2- ABG SaO2 (Std. Deviation: 2.78, Lower LoA; -5.912, Upper LoA: 4.996), and -1.015 between finger pulse oximeter SpO2- ABG SaO2 (Std. Deviation: 5.086, Lower LoA; -10.983, Upper LoA: 8.953). There is a strong correlation with RR and the number of attempts to measure Spo2 with Apple Watch (P <0,001).

Conclusions: Our results revealed that Apple Watch Series 6 measures the peripheral blood oxygen level accurately in emergency patients presented with COPD exacerbation. However, using the Apple Watch in tachypneic patients may not be the best option since it may require several attempts. Although Apple Watch gave us more accurate SpO2 results compared to finger pulse oximeter in this study, studies on this subject are still limited, and therefore, we recommend further research to be undertaken with different patient populations and larger samples.

Keywords: Apple Watch, COPD Exacerbation, pulse oximeter, wearables, smart watch

S- 192

Case Report: Cardboard Injury Induced Pneumomediastinum

Ökkeş Zortuk[1], Fatih Selvi[1], Cihan Bedel[1]

[1]Department of Emergency Medicine, Health Science University, Antalya Training and Research Hospital, Antalya, Turkey

Background and aim: The access of air into the mediastinum region is named pneumomediastinum. It appears to develop spontaneously and is secondary to trauma and some diseases. We present anterior chest wall pain that developed after pain in the throat area of a 17-year-old female patient who fell asleep on a bookmark at night. The patient was followed up after it was detected that secondary pneumomediastinum developed by an object that would not be expected to cause trauma.

Case: A 17-year-old female patient stated that after falling asleep with a bookmark on her bed 16 hours before her access to the emergency department, she woke up with discomfort after the object was clung in her throat. She applied to the emergency service after her pain increased and extended to the anterior chest wall. In the inspection, it was seen that there was a horizontal 1.5 cm incision under the skin at the level of the thyroid cartilage, a horizontal 4 cm incision under the skin 1 cm above the skin, and crepitation of subcutaneous emphysema extending to the bilateral supraclavicular area on palpation. Values were evaluated as within the normal range in venous blood gas follow-up. In the thorax tomography of the patient, a free-air image extending from the deep and superficial fascia in the neck region to the mediastinum was noticed. This air, which was considered as pneumomediastinum, was laying to the diaphragm. Esophagus and trachea configurations were normal, mediastinal main vascular structures were undamaged. Small pneumothorax is observed in the upper part and medial of the left lung. Bone tissues of the thorax wall were evaluated as normal. The need for intensive care follow-up of the patient was evaluated by the anesthesia department.

Conclusions: Pneumomediastinum, which manifests itself in a wide spectrum from asymptomatic status to findings that may lead to mortality, is a disease that needs to be recognized and treated quickly. It should not be ignored that any object can be a cause of trauma for traumatic patients, which is among the secondary causes.

Keywords: Pneumomediastinum; trauma; Injury

S- 185

GASTRIC PERFORATION DUE TO SUICIDAL ORAL MURIATIC ACID IN TAKE MAY CAUSE DEATH

Mustafa Yasin Okten[1], Murside Yayli[1], Sevilay Biyikli[1], Gokhan Cabar[1], Nedim Uzun[1], Mustafa Calik[1]

[1]Gaziosmanpasa training and research Hospital

Background and aim: Caustic ingestion can cause serious, life-threatenin gproblems. Contact with caustic substances isusually suicidal in adults and accidental exposurein children. Solids damage the mouth, liquids damage the esophagus and stomach. Alkal is cause deep burn and liquefaction necrosis. Acids, on the other hand,cause superficial burns and coagulation necrosis,but since their viscosityis less,they quickly pass into the stomach and cause gastric outlet burns.Common sequelae in clude upper gastrointestinal tract stricture formation,gastrointestinal tract perforation,and bleeding.Systemic effects such as disseminated intravascular coagulation,multi-organfailure and sepsis may also occur.The goldstandard to determine the extent of the lesionis esophagogastroduodenoscopy performed with in the first 12-24 hours after corrosive ingestion. Inducing vomiting,nasogastric insertion and neutralizing agents are contraindicated. Esophagogastroscopy was performedand the esophaguswasenteredunderdirectvision.

Case: A43-year-old male patient has known alcoholic cirrhosis and psychiatric disorders.Heapplied to our emergency clinic with complaints of abdominal pain and vomiting. General condition is moderate,consciousness is clear,orientation and cooperation are weak.TA:130/80,HR:88, SPO2:97There is widespread tenderness and defense on abdominal examination,norebound, normal brown stool smear on rectal examination.In his anamnesis,it was learned that he drank mauritic acid for suicide.WBC atadmission:27000,CRP:4.6 Lactate:0.9 Intraabdominal free fluid in the pelvis is found in the abdominal CT. The patient's oral in take was stopped,PPI and IV hydration were started,and he was admitted to the general surgery service for esophagogastroscopy. There were necrotic and occasionallygray-whiteplaquesontheentire pharynx, esophagus and as far as can be seen stomach surface from the oral cavity.

Conclusions: After the ingestion of caustic substance, necrotic reaction develops in the gastrointestinal are aswhere the substance comes into contact. Oral ingestion of caustic substances can cause organ perforation and death by causing stomach in volvement, as seen in this case.

Keywords: Gastrıc Perforatıon, Murıatıc Acıd

S- 210

A Special Age Range in Cases of Forensic Falls From Height; Under Two Years Old

Burak Demirci[1], Abuzer Coşkun[1]

[1]University of Health Sciences, Bagcilar Training and Research Hospital, Istanbul, Türkiye

Background and aim: Childhood trauma is often caused by accidental or neglected falls. In this study, we aimed to evaluate demographic and clinical factors to determine the incidence of falls from height in children under two years old.

Methods: The study included 106 forensic cases who presented to the emergency department after falling from a height of one meter or more as a result of an accident or negligence between January 1, 2016 and December 31, 2021. According to the level of fall height, the cases were divided into two groups as below 3 meters and above. Clinical findings, hospitalization, and mortality status were used to group patients.

Results: Of the 106 cases included in the study, 59(55.7%) were male.The mean age of the patients was 12.89±6.80 months (p=0.002) and the mean height level was 3.67±2.85 m (p=0.001).The mean height of the Low and High groups was 1.78±0.71, 6.92±2.09 meters, respectively.Crainal fracture was present in 21(19.8%) patients in the high group and all traumatic parenchymal brain lesions except contusion were seen in the high group (p=0.001). Four (3.8 %) of the 9(8.5%) dead cases died in emergency department. The average height of emergency department fall victims was 9.75±2.63 meters (p=0.001).

Conclusions: Especially cases of falling from height under the age of two are common and are an important cause of morbidity and mortality. Fall height level is an important marker in terms of clinical and prognosis. Informing and educating caregivers and parents can prevent accidents and neglect in advance.

Keywords: fall from height, emergency department, childhood, trauma, child neglect

S- 041

Thyrotoxic hypokalemic periodic paralysis

İzzet Ustaalioğlu[1]

[1]Kartal Dr. Lütfi Kırdar City Hospital

Background and aim: Thyrotoxic periodic paralysis (TPP) is a table characterized by thyrotoxicosis, hypokalemia and acute proximal muscle weakness. In this case, we aimed to present a patient diagnosed with thyrotoxic hypokalemic periodic paralysis by applying to the emergency department.

Case: A 54-years-old female patient was admitted to the emergency department with a sudden onset of weakness in the arms and legs. In her anamnesis, she was examined at the outer center, where she had similar complaints, and was said to have a lack of potassium. She did not describe any recent infections. She had hypertension and was using 10 mg of lercanidipine as a medicine. There was no feature in her family history. Vital signs in emergency application were as; fever: 37.2 °C, BP: 122/74 mmHg, heart rate: 84/min and sO2: 99% respiratory rate: 12 / min. In her physical examination; there was motor deficit in both the lower and upper extremities. Deep tendon reflexes could not be obtained. There was no sense defect. Other system examinations were normal. The patient's EKG revealed normal sinus rhythm and U wave in anterior leads. In laboratory tests, leukocyte: 9,600/mm3, creatinine: 1.16 mg / dl (0.75-1.25 mg/dl) Blood urea nitrogen: 8 mg / dl (8.9-20.6 mg/dl) TSH 0.0620 IU/ml (0.35 - 4.94 IU/ml) Free T3: 3.76 (1.71 - 3.71 pg/mL) Free T4: 1.23 (0.7 -1.48 ng / dL). KCL infusion was started as a treatment for the patient. Dramatic response was received after treatment. T negativity in ECG improved after treatment. The patient was hospitalized by the internal medicine clinic for the diagnosis and treatment of thyrotoxic hypokalemic periodic paralysis.

Conclusions: In thyrotoxicosis, due to the increased sensitivity to catecholamines, beta adrenergic blocker application decreases the number and severity of attacks, and in some cases causes a decrease in plasma K concentration. Thyroid hormones increase Na-K-ATPase activity, causing K to enter the cell. Diagnosis in patients with hypokalemic periodic paralysis; family history is determined by the absence of another reason, rapid normalization of serum K and regression of symptoms after application of K. Thyroid function tests should also be examined in those without a family history.

Keywords: thyrotoxicosis, paralysis, endocrine emergencies

S- 055

Streptococcus Pneumoniae Induced Meningoencephalitis Mimicking Rhinitis and Acute Stroke in Emergency Service!

Fatih ARICILAR[1], Umut OCAK[1], Recep Sami OZAY[1], Melih YUKSEL[1], Mehmet Oguzhan AY[1], Halil KAYA[1]

[1]University of Health Sciences, Bursa School of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine

Background and aim: Infections like as other disorders affecting the central nervous system (CNS) can activate the immune system which leads to inflammation that has a wide range of symptoms regarding with inflammation, include fever, headache, seizures, brain damage, stroke or even death. Inflammation of the meninges, the membranes that surround the brain and spinal cord, is called meningitis; inflammation of the brain itself is called encephalitis. When both the brain and the spinal cord are involved, the condition is called meningoencephalitis. Meningoencephalitis is a rare disease and if it is derived from bacteria, mostly seen Streptococcus Pneumoniae can be potentially fatal if not treated immediately. We would like to present a pneumococcal meningoencephalitis case with the symptoms like as rhinitis and stroke.

Case: A 48-year-old female presented with fever, headache, rhinorrhea, nausea, vomiting, trouble speaking, dullness and, left hemiparesis to our emergency service. Her past medical history included hypertension, for the past 3 years. On physical examination she was alert, oriented and awake with a Glasgow coma scale score of 15/15. Vital signs revealed a temperature of 36,4 degrees Celsius, heart rate of 104 beats per minute, respiratory rate of 18 breaths per minute, and blood pressure of 105/62. She had a post-nasal drip and her neurological examination revealed left hemiparesis, left Babinski positivity, and decreased nasolabial fold prominence on left. Clinical examination was not significant for neck stiffness. The systemic inflammatory marker C reactive protein was elevated to 355 mg/dL with leukocytosis. Based on clinical presentations and initial work-up with blood, computed tomography (CT), and magnetic resonance imaging (MRI), bacterial meningitis was suspected, and she was started on a third-generation cephalosporin-ceftriaxone. Further diagnostic work-up with lumbar puncture for cerebrospinal fluid (CSF) analysis the patient diagnosed pneumococcal meningoencephalitis and intravenous vancomycin is added to the treatment and the patient is admitted to the intensive care unit of neurology.

Conclusions: It should be kept in mind that CNS infections may mimic the different types of diseases. It is essential for emergency physicians to recognize this life-threatening condition in the early phase to provide emergency management promptly and to administer timely antibiotic therapy.

Keywords: CNS infections, meningoencephalitis, stroke, rhinitis, emergency service

S- 186

A Drowning Case in a 15-year-old Child, Without Deficit

Başak Beşir[1], Başak Beşir[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Sarper Yılmaz[1], Mahmut Altaş[1], Fatih Mehmet Alpteki[1], Şerife Gül Gündüz[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Drowning is defined as 'the process of experiencing respiratuary impairment from submersion/immersion in liguid' by WHO.In each year approximately 360,000 people die worldwide as a result of drowning,most of whom are children.Drowning is the leading cause of injury mortality among children 1-4 years old.Apart from toddlers,people over 80 years old are at greatest risk of death by drowning.In this case report,we aim to disscuss management of drowning cases in emergency service.

Case: A 15-year-old boy was saved by life-guard after being submerged approximately 3 minutes in sea.Following basic life support which was applied for five minutes at coast,he regained consciousness after massive hematemesis and was transferred to emergency service.On primary examination,general condition was moderate-poor, GCS:12(G4-V2-M6) and he was confused.Vital signs;SpO2:75%,BP:97/54mmHg,pulse:110beats/min,fever:36.6C. ECG was indicated sinus-tachycardia.Bilateral widespread rales and rhonchi with intercostal retractions were noted on auscultation and respiratory effort was present.Three-large(16G) vascular accesses were provided.Hydration,inhaler and steroid therapy were applied.Broadspectrum-antibiotics were administered as prophylaxis.NIMV was applied.In order to rule out gastrointestinal haemorrhage,nasogastric lavage was performed and detected normal stomach contents.During follow-ups hemoptysis has developed for which IV transamine was administered, and it was determined that the patient had a progressive decrease in consciousness and could not tolerate NIMV.Due to his re-measured vital parameters, which were HR:155beats/min, SpO2:85%,respiratory rate:40/minute, and deteriorated condition the patient has been intubated with RSI protocol. After his vital signs has been stabilized, he has been extubated at 37th hour of drowning.He has been hospitalized for 12 days.Patient, who had no neurological sequelae,was discharged from hospital.

Conclusions: Drowning is a common situation,especially in summer,in regions with water resources such as our country.In such cases,first aid is crucial.Since cardiac arrest develops mostly due to hypoxia in cases of suffocation,ventilation and compression should be performed together.If mouth-to-mouth breathing will not prolong the time to reach coast,it should begin while in water.Lung protective continuous positive pressure airway should be provided in conscious patients.Intubation should be considered in patients who are unconscious, with a saturation below 90% despite highflow-oxygen, or with pCO2>50mmHg in arterial-blood-gas.Central imaging should be performed after the patient is stabilized to possibility of mental status change and sequelae due to hypoxia.

Keywords: Drowning, emergency service, hypoxia, submersion

S- 202

EVALUATION OF A MULTI-TRAUMA PATIENT WHO HAD MASSIVE TRANSFUSION IN THE OPERATİNG ROOM

Ummahan Dalkılınç Hökenek[1], Rohat Ak[2]

[1]Department of Anesthesiology and Reanimation, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey
[2]Department of Emergency Medicine, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey

Background and aim: Acute blood loss in the context of trauma is a life-threatening situation. Massive transfusion (MT) is typically described as the transfusion of 10 or more packed red blood cells (PRBCs) within 24 hours with the purpose of limiting complications and essential hypoperfusion while surgical hemostasis is being established (1). In this case report, we will discuss the care of a multitraumatized patient admitted to the emergency department.

Case: A 28-year-old male patient was brought to the emergency department due to gunshot and beating. On arrival, the patient had a BP: 70/40 mmHg, HR: 138 per/minute, agitated appearance. In the primary examination of the patient, a bullet hole in the lateral aspect of the left femur, and tenderness in the abdomen and pelvis were detected. While there was a fracture in the ramus pubis was observed in the pelvis X-ray. In the bedside FAST ultrasonography examination, diffuse fluid was observed in the morison pouch and around the bladder. The patient was taken to the operating room. At the operating room, BP:85/50 mmHg, HR:130 per/minute SpO2:95%. Massive hemoperitoneum and liver laceration was detected. Massive blood transfusion protocol (MTP) was applied from the moment the patient was diagnosed with massive hematoperitoneum. Intraoperative 4 units of RBC, 4 units of FFP, 6 units of thrombocyte suspension were transfused. The patient, whose bleeding was controlled by performing lobectomy due to liver laceration, was admitted to the postoperative ICU. Tissue perfusion was preserved in the patient who received 8 units of RBC, 8 units of FFP, 12 units of thrombocyte suspension, and 4 grams of fibrinogen within 24 hours perioperatively. Blood transfusion and shock-related organ damage were not observed in the patient who was extubated after 48 hours postoperatively. The patient was discharged after being followed for 10 days.

Conclusions: Utilization of a Massive Transfusion Protocol is essential for the survival of trauma patients who are bleeding. Additionally, early beginning of an MTP and quicker product delivery are related with fewer organ failure.

Notes (Optional): References1-Clinical practice guideline: red blood cell transfusion in adult trauma and critical careCrit Care Med, 37 (12) (2009), pp. 3124-3157J.L. Carson, et al.

Keywords: massive transfusion protocol, trauma, anesthesiology, resuscitation

S- 198

The rule of early Bogota bag application in preventing intra-abdominal related mortality rate our experience in north of syria

Ahmet Haydari[2], Mehmet Elidris[1], Abdulrazzak Elyunus[3], Burak Çelik[5], Bahadır Karaca[4]

[1]Cobanbey Hospital Department of General Surgery
[2]Cobanbey Hospital Department of Pediatric Surgery
[3]Cobanbey Hospital Department of Urology
[4]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine
[5]Kirsehir Training and Research Hospital, Department of Emergency Medicine

Background and aim: Intraabdominal hypertension and Intraabdominal compartment syndrome considered a leading cause of mortality in neglected surgical patient we discussed in this study our experience in early use of bogota bag and the need to high index of suspension to prevent multiple organs failure.

Case: We will discuss the late application of bogota bag (first group) and some we succeed to survive by early application of it (second group).the first group sample:30 years old male referred to our hospital with penetrating abdominal gun shout injury lead to wide bowel evisceration since about 2 hours. the patient was thermodynamically stable. we found multiple small intestinal injuries. we repaired them and closed the abdomen within 45 minute. by follow up in ICU the intra-abdomenal pressure was about 15 mmHg. we decided to follow up and wait with NGT and recal tube and enema. tube in in the 3 day there was mental deterioration and abdominal distention the itra-abdominal hypertemsion at that time was more tham 20 mmHg we decided to perform emergency laparotomy and using bogota bag we found a necrotic 5 cm piece of ilium we resected it and performed an ileostomy and closed abdomen putting bogota bag unfortunately the patient dead in the second Post-op day.The second group sample:we received in our hospital 13 years old boy with lately diagnosed necrotizing appendicitis and generalized peritonitis, Laparotomy was performed through a gridiron incision drain application.within 8 hours after surgery the patient suffered of continuous abdominal pain, abdominal distension and vomiting despite the routine post-op analgesic using. Intra-abdominal pressure at that time was 30 cm H2O. we decided to perform redo-laparotomy and use Bogota bag after 48 hours we closed the abdomen and discharged patient in the 3 post-op day.

Conclusions: We supposed that waiting till reaching definitions may case irreversible organs failure, and at that stages the use of Bogota bag will not survive any previously neglected or lately diagnosed patient referred to our hospital.We recommend to use Bogota bag at any case we supposed to complicate by inta-abdominal hypertension.

Notes (Optional): We aim to contribute to the congress with our cases from Syria.

Keywords: North of Syria, intra-abdominal hypertension, bogota bag, preventing abdominal compartment syndrome

S- 171

7 Siblings Admitted to Emergency with Datura Poisoning: Cases from Northern

Burak Çelik[1], Bahadır Karaca[3], Murat Tepe[2]

[1]Kirsehir Training and Research Hospital, Department of Emergency Medicine
[2]Kilis State Hospital, Department of Emergency Medicine
[3]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine

Background and aim: Syria Datura stramonium (DS) is a common herb containing atropine, hyoscyamine and scopolamine, which can cause poisoning with severe anticholinergic syndrome. (one) 7 siblings aged 1 to 8 years applied to the emergency department of our hospital with various complaints such as skin symptoms, nausea-vomiting and changes in consciousness about 1 hour after they ate the plant they found in the garden. It was understood that the plant brought to the hospital by their families was DS.

Case: 7 years old girl; there were complaints of nausea-vomiting, redness of the skin and changes in consciousness. On physical examination, she was conscious, and her orientation and cooperation were impaired. Pupils were mydriatic, mucous membranes were dry and facial redness was present. Other system examinations were evaluated as normal. Fever: 38 C, Heart Rate 118/min, Sat: 98% Respiration Rate: 22/min. Hemogram and biochemistry test results were within normal reference ranges. After 2 days of follow-up in the pediatric intensive care unit, our patient was discharged with full recovery.7 years old Boy; there were complaints of nausea-vomiting, redness of the skin and changes in consciousness. On physical examination, he was conscious, and his orientation and cooperation were impaired.Nausea-vomiting, abdominal pain and skin findings were prominent in the complaints of the other 5 siblings aged 1 to 8 years. There were no changes in consciousness. Vital signs were within normal ranges. On physical examination, there were no pathological findings other than skin rash and mydriasis. Isotonic fluid therapy and follow-ups were performed in the emergency department. Since the patients did not have any additional complaints, they were discharged after 12 hours of observation at the request of the family.

Conclusions: In our cases, there were symptoms of dry-red skin, nausea, abdominal pain, and altered consciousness. The main treatment in DS poisoning consists of supportive treatment and care. in conclusion, DS poisoning should be kept in mind in every patient who presents to the emergency department with unexplained anticholinergic symptoms and complaints.

Keywords: Datura stramonium, Syria, pediatric emergency, toxicology

S- 037

Victim of Burns Due to Social Media Suggestions: Case Report

Cesareddin Dikmetaş[1], Ayla Köksal[1], Onur Çığşar[1], Mahmut Kerem Avşaroğlu[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Today, social media has an important place in the life of society. People use social media for many purposes such as having fun, getting information, and sharing good memories.We aimed to present a case that applied false information obtained through the use of social media and resulted in a burn.

Case: The woman patient who sixty eight years old consulted to the Emergency Room (ER) around 6 pm as a burn that starts on both knees and extends to the ankle. One day before the date of admission to the ED, she put a fig leaf in warm water for knee pain and dipped her legs up to her knees in this water. She followed and applied this mixture on social media. She has a history of hypertension and diabetes.During the time of medical examination her vital signs are stable, There is a 1-2 degree burn with regional bullae starting from the top of both knees to the ankle. this burn was in a circular fashion. The patient was vaccinated against tetanus.Hydration was started. The patient with pain was treated with analgesics and antibiotic. Wound care was performed. the patient was consulted with the burn center because there was a circular burn and referred to the burn center by 112 ambulance for follow-up treatment.

Conclusions: Social media makes itself felt in every aspect of life. From a small child to an old person, everyone follows social media. Although social media is so widespread in society, there is also a lot of wrong information and people are affected by this wrong information. People who apply what they see and hear on social media can experience very serious health problems, as in our case. In this context, the society should be informed that not every information available on social media is correct and that they should not be applied. However, necessary legal arrangements should be made so that there is no information that will create such serious situations for social media. they should know that they need to get the right information from the right places from social media

Keywords: Social Media, Burn, Emergency

S- 184

Association of Carbon monoxide Poisonings and Carboxyhemoglobin Levels with COVID-19 and Clinical Severity

Abuzer Coşkun[1], Burak Demirci[1], Kenan Ahmet Türkdoğan[1]

[1]University of Health Sciences, Bagcilar Training and Research Hospital, Istanbul, Türkiye

Background and aim: In addition to the cases of coronavirus disease 2019 (COVID-19), which has recently affected the world, carbon monoxide (CO) poisonings are also important patient groups of emergency departments. The aim of this study was to assess the clinical and prognostic effects of COVID-19 in cases of CO poisoning.

Methods: This single-center and retrospective study was conducted with 479 CO poisoning patients between January 2018 and December 2021. The patients were mainly analyzed in two groups as pandemic period and pre-pandemic. Patients' demographic, clinical, arterial blood gas, COVID-19 Polymerase Chain Reaction (PCR), and other laboratory data were extracted from the hospital information system.

Results: The mean age of 479 patients was 54.93±11.51 years, and 187(39%) were female. 226(47%) patients were in the pandemic group and 143(30%) of them had a history of COVID-19. While the mean pH in arterial blood gas of all patients was 7.28±0.15, it was 7.35±0.10 in prepandemic and 7.05±0.16 in severe group of pandemic period ($p<0.001$). Carboxyhemoglobin (COHb) was 23.98±4.19% in the outpatients and 45.26±3.19% in the mortality group ($p<0.001$). Partial arterial oxygen pressure (PaO2) was 89.63±7.62 mmHg in the prepandemic, and 79.50±7.18 mmHg in the severe group of the pandemic. ($p<0.001$). While 35(7%) of all cases resulted in mortality, 30(85.7%) of those resulted in mortality were in the pandemic group ($p<0.001$).

Conclusions: COVID-19 disrupts the air exchange barrier with possible pulmonary effects. In CO poisonings, both clinical findings and survival are significantly negative in patients with a history of pandemic COVID-19.

Keywords: Emergency Department, COVID19, Carbon monoxide, mortality

S- 211

Clinical and Imaging Consequences in Pediatric Head Trauma

Burak Akın[1], Abuzer Coşkun[1], Burak Demirci[1], Hatice Karaçam[1], Betül Çam[1]

[1]University of Health Sciences, Bagcilar Training and Research Hospital, Istanbul, Türkiye

Background and aim: Cases of childhood head trauma constitute a common patient group in emergency departments and computed tomography (CT) is a frequently preferred imaging method for these cases. We aimed to retrospectively evaluate the cranial tomography results of pediatric patients, along with their admission clinics, hospitalization, and survival status.

Methods: Four-hundred pediatric patients admitted to the emergency department with head trauma between 1 January 2019 and 31 December 2020 were included in this retrospective cross-sectional study. Demographic characteristics, trauma patterns, symptoms, clinical findings, CT findings, hospitalization, consultation, and survival status of the patients were recorded and evaluated.

Results: The mean age of evaluated patients was 6.87±4.96 (range 0-17) years. Among the 400 cases in the study, the most common type of trauma was falling in 260 (65%) cases, the most common symptom was headache in 99 (24.8%) cases, and 264 (66%) patients had CT imaging. Although 137 (34.3%) of all patients had no complaints, they had CT imaging. Although 56 (14%) of all patients did not have any complaints, there was a lesion in their tomography. While 288 patients had no CT lesions, the most common CT findings included 80 (20%) cephalohematomas and 21 (5.3%) fractures, respectively. The relationship of clinical symptoms with both the presence of radiological imaging and the presence of a lesion on CT was significant (p=0.001). Four (1%) patients were in the exitus group.

Conclusions: Tomography imaging is a very important examination in pediatric patients with head trauma and is directly related to symptoms, clinic, and mortality. There is a requirement for multicenter prospective studies on this subject to establish realistic and reliable algorithms for cranial CT preference in patients.

Keywords: Child, emergency department, head trauma, tomography

S- 212

Dissection In The Proximal Portion Of Descending Aorta Secondary To The Blunt Travma

Büşra Demirci Samadov[1], Özgür Çevrim[1]

[1]şişli hamidiye etfal e.a.h.

Background and aim: Aortic dissection rupture due to blunt trauma is a rare and fatal complication. It is seen especially in cases with descending aorta (De Bakey type 3, Stanford Type B) involvement. The mortality rate in Stanford type B aortic dissections is 50-60%. In this case report, we tried to emphasize that considering the pre-diagnosis of aortic dissection rupture and planning of contrast thoracoabdominal imaging in patients with high-energy trauma, accompanying scapula, 1st and 2nd rib and sternum fractures is essential in patient follow-up, diagnosis, and treatment.

Case: Our case is a 46-year-old male patient brought by ambulance after a pedestrian accident. General condition was moderate, conscious, oriented, cooperative, and GKS was 15. Arrival vitals were stable. He described widespread extremity pain and difficulty breathing. In the inspection, there was extensive dermabrasion on the right shoulder and right flank. Pain in the left shoulder, over the right scapula, a 3x3 cm laceration in the left elbow, and pain on palpation were detected. On auscultation, respiratory sounds were bilaterally bronchovesicular and equal. There was widespread tenderness in the right quadrants of the abdomen. Distal pulses were bilaterally clear and equal. The patient was evaluated as stage 1 shock. Because the patient had a high-energy traffic accident, CT of the brain, entire spinal cord, thorax, and iv contrast abdominal CT was requested. Extremity radiographs and general surgery, and orthopedic consultation were requested. Thoraco-abdominal CT with IV contrast showed contusion and appearance compatible with hemothorax and bleeding areas around the dissection flap proximal to the descending aorta. No solid organ injury was found in abdominal CT. The patient was diagnosed with an aortic dissection flap proximal to the descending aorta secondary to high-energy trauma and a related left scapula fracture. The patient was taken into surgery after consultation with the cardiovascular surgery department.

Conclusions: In high energy traumas with scapula, sternum and 1st rib fractures we considering that it can be seen together with great vessel injurys in these patients, getting the IV contrast thoraco-abdominal tomography imaging can reduce the death rate of patients.

Keywords: high energy trauma, tarumatic aort dissection rupture

S- 199

Short gastric vessels depending splenorrhaphy a new technique and we used in north of Syria

Mehmet Elidris[1], Ahmet Haydari[2], Abdulrazzak Elyunus[3], Bahadır Karaca[4], Burak Çelik[5]

[1]Cobanbey Hospital Department of General Surgery
[2]Cobanbey Hospital Department of Pediatric Surgery
[3]Cobanbey Hospital Department of Urology
[4]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine
[5]Kirsehir Training and Research Hospital, Department of Emergency Medicine

Background and aim: The severity of splenic injury can objectively be described with a grading system developed by the American Association for the Surgery of Trauma [1]. We used to perform routine splenectomy for these advanced cases, but we will discuss in this study our experience in preserving 25% of splenic paranchyme depending only on short gastric vessels and our experience in long- term follow up. And we recommend to modified or sub-grading to the recent scale to include mentioning to the short gastric vessels not only the splenic helical vessels.

Case: We received in our hospital 2 cases of blunt abdominal trauma (17 and 13 years old respectively) each of them arrive with prodromal shock symptoms and by FAST ultrasound examination there was a huge amount of hemorrhage hemoglobin's were (8 and 8.5 respectively. By emergency laparotomy we found grade V splenic rupture we performed a partial splenectomy and leaved the upper pole (less or equal to 20% of splenic mass) of the spleen depending only on the short gastric vessels and fixed this splenic piece by hitching it to the grater curvature of the stomach.Patients hospitalization was 5 days and passed without any early complication. We removed drains and discharged them at 5 post-op day without any need for vaccination or antibiotic or anti-coagulant oral agent. We follow up our patients in the out-patient clinic with routine CBC tests and ultrasonography after 3 months and the features and size of the spleen was near normal at the end of the that year.

Conclusions: We recommend that short gastric vessels could be included in the worldwide recognized grading. And that addition or sub-grading of the V grade could be effective in managing splenic injuries. We found that short gastric vessels if were intact could maintain enough blood supply to the upper splenic pool. We recommend to fixate the splenic piece by hitching it to the grater curvature to avoid losing it by accidental torsion.

Notes (Optional): Kaynaklar[1]. https://link.springer.com/referenceworkentry/10.1007/978-3-642-00418-6_517 [2]. https://www.researchgate.net/publication/280692777_Technical_Aspects_of_Laparoscopic_Distal_Pancreatectomy_for_Benign_and_Malignant_Disease_Review_of_the_Literature

Keywords: North of Syria, Splenic rupture, Splenorrhaphy, Long-term follow up

S- 122

A Case of Acute Coronary Syndrome Diagnosed by Serial EKG Changes

Irem FIDAN YOLAY[1], Umut OCAK[1], Melih YUKSEL[1], Enad KENAN[1], Mehmet Oguzhan AY[1], Halil KAYA[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa 16310, Türkiye

Background and aim: Acute coronary syndrome (ACS) is a term used to describe a range of conditions associated with sudden, decreased blood flow to the heart, and these life-threatening conditions are defined as a clinical picture consisting of unstable angina pectoris (USAP) due to acute myocardial ischemia, and myocardial infarction (MI) with or without ST-segment elevation. The diagnosis requires an electrocardiogram (EKG) and a careful review for signs and symptoms of cardiac ischemia. Serial 12-lead EKG examination and cardiac biomarker assays lead to the diagnosis if there are no findings on the EKG despite the presence of typical chest pain. During follow-up, the clinician can detect the EKG changes that indicate the diagnosis. Hereby, we would like to share our case with our valued colleagues to emphasize the importance of serial EKG follow-ups.

Case: A 43-year-old smoker female was transported to our emergency department (ED) by ambulance for acute chest pain radiating to the jaw and back that had been present for 3 hours. She was no known medical history or drug use. There was also no family history of coronary artery disease, hypercholesterolemia, or sudden death. On examination, the patient had a blood pressure of 129/80 mm Hg and a regular pulse of 80 bpm. Heart sounds were clearly audible with no added sounds. The internal jugular vein was not raised, there was no peripheral edema and there were audible vesicular breath sounds with good air entry at the lung bases. The EKG findings (Figures 1, 2 & 3) and troponin levels on admission allowed to predict us that the cause of the chest pain was a non-ST segment elevation myocardial infarction. The patient was given aspirin 300 mg and clopidogrel 300 mg before being transferred to the cardiology unit.

Conclusions: Coronary artery disease (CAD), although rare, can occur in patients without major risk factors. Patients presenting to the emergency department with complaints of chest pain should be assessed in terms of their pain characteristics and should be followed up with serial EKG imaging and cardiac enzyme assays.

Notes (Optional): Conflict of Interest: Nope

Keywords: acute coronary syndrome, cardiac enzymes, chest pain, electrocardiogram, emergency service

S- 156

Trends in suicide attempts and associated factors among adults: A 3-year analysis

Adem Az[1], Çiğdem Orhan[1], Özgür Söğüt[2]

[1]Istanbul Provincial Health Directorate Beylikdüzü Public Hospital, Department of Emergency Medicine, Istanbul, Turkey
[2]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Background and aim: About 1 million people worldwide die from self-harm every year; this number of deaths is higher than those attributable to murder and war. The World Health Organization (WHO) estimates that the annual suicide rate is 10.7 per 100,000 individuals. On average, one person intentionally kills themself every 40 seconds. Data on non-fatal self-harm behavior and ideation are limited worldwide, and the WHO provide no such information. Therefore, studies in EDs are crucial for evaluating suicidal behaviors. We explored the epidemiological characteristics of suicide attempts, and identified suicide trends among adults and associated factors.

Methods: This retrospective, cross-sectional, observational single-center study included 412 consecutive patients admitted to an Emergency Department for follow-up and treatment after suicide attempts between June 2019 and June 2022. We assessed patient demographics, suicidal behavior, previous suicide attempts, psychiatric disorders, drug use, visits to the psychiatry clinic within the past 6 months, the persistence of suicidal ideation, and clinical outcomes.

Results: The study population consisted of 259 females (62.86%) and 153 (37.14%) males, with a mean age of 29.50 ± 11.51 (range: 13–72) years. Females attempted suicide more often than males but suicide completion was more common in males. Overall, 79.37% (n = 327) of the suicide attempters were aged < 40 years and most were 20–29 years old (n = 147, 35.68%). Non-fatal suicide attempts were more common in single, unemployed, and poorly educated individuals, but this was not the case for suicide completers. Drug poisoning was the major form of suicide attempt (n = 345, 83.74%). Mental disorders, family or relationship conflicts, and separation from a partner were common causes of suicidal ideation. Patient numbers were particularly high in the autumn (i.e., September), and at night.

Conclusions: Females, young adults, singletons, the unemployed, and individuals with psychiatric disorders and low education levels are more likely to attempt suicide, particularly during hours when they are likely to be alone.

Keywords: Attempted suicide, suicidal behaviors, suicidal ideation, demographic characteristics, drug poisoning

S- 118

Kafa karıştıran başvurular tahmin edin kim; Kounis / Confusing appeals guess who; Kounis

Onur Aslan[1]

[1]Tarsus Devlet Hastanesi

Arka plan ve amaç: Kounis syndrome, named as "allergic angina syndrome" by Kounis and Zavras in 1991, is the development of acute coronary syndrome associated with allergy, hypersensitivity, anaphylaxis or anaphylactoid reactions, which progresses with the activation of mast cells.In this case series, we aimed to present 7 different Kounis syndrome cases.

Vaka: Four patients diagnosed Type 1, 1 patients type 2, and 1 patient diagnosed type 2 and 3 Kounis syndrome in a total of 7 patients who presented to the emergency department after allergic symptoms (Table).In the first four patients aged 27, 32, 41 and 48 years old, discharge was planned without coronary angiography.Coronary angiography of two patients who were 43 and 51 years old who were admitted to the emergency department after unknown insect bite and a bee sting respectively. Both of these two patients had LCX artery total occlusion.A 57-year-old male patient presented with allergic symptoms and chest pain after being vaccinated against COVID-19 12 hours ago, and had ST segment elevation in the anterior leads in his ECG. Coronary angiography of the patient was found to have total occlusion of the LAD artery. Acute rethrombosis was seen 6 hours later in the patient who was staying in the coronary intensive care unit after stent implantation.

Kararlar: Kounis syndrome, which develops after mast cell activation and inflammatory mediator release, is divided into three types.Type I: Without atherosclerotic risk factors and coronary artery disease, the patient has coronary vasospasm caused by allergic mediators such as histamine, thromboxane and leukotrienes.Type II: Patients with atherosclerotic coronary artery disease have an acute coronary syndrome as a result of coronary vasospasm triggered by these mediators, plaque wear or tear.Type III: It includes patients with stent thrombosis developing after an allergic reaction.The most commonly affected age group in Kounis syndrome is 40-70 years old. The most common triggers are antibiotics (27.4%) and insect bites (23.4%). Most of the evidence for the efficacy of treatment in Kounis syndrome is based on individual case reports or case series. Corticosteroids such as hydrocortisone at a dose of 1-2 mg/kg/day, H1 antihistamines such as diphenhydramine (1-2 mg/kg) and H2 antihistamines such as ranitidine (1 mg/kg) can be used as supportive treatment.

Notlar (Opsiyonel): Acil servis başvurularında karışık görünen durumlar akla geldiğinde kolay tanılara dönüşebilmektedir. Bu amaçla Kounis Sendromunu hatırlatmayı amaçlıyoruz / Situations that seem complicated in emergency service applications can turn into easy diagnoses when it comes to mind. For this purpose, we aim to remind Kounis Syndrome.

Anahtar Kelimeler: Kounis Syndrome, allergic angina, chest pain

S- 017

EVALUATION OF THE DIFFERENCE IN MORTALITY BETWEEN COVID 19 PCR POSITIVE AND NEGATIVE PATIENTS DIAGNOSED WITH DIABETIC KETOACIDOSIS IN THE EMERGENCY DEPARTMENT

Yücel Yüzbaşıoğlu[1], Barış Özer[1], Yavuz Katırcı[1]

[1]gülhane Eğitim ve Araştırma Hastanesi

Background and aim: In this study, the difference in mortality between COVID-19 positive and negative patients diagnosed with diabetic ketoacidosis (DKA) in the emergency department (ED) was investigated.

Methods: Our study was carried out as an observational retrospective between 20 March 2020-30 November 2021 in the ED of Gulhane Training and Research Hospital.The state of consciousness, vital signs, comorbidities, demographic information, Polymerase Chain Reaction (PCR) test result, hospitalization site, length of hospital stay, mortality scores, death or discharge status were examined.

Results: The median age of 74 cases included in the study was 59 (35.5-70) years. In the study, hypertension was the most common (23%) in addition to diabetes mellitus in patients hospitalized in intensive care units, and it was found to be associated with mortality (P=0.01). 26 (35.13%) cases died and the median age was 66.5 (64-75) years. 19 of the patients who died (73%) were women and it was significantly associated with mortality (p=0.006). Twenty-five (96%) of 26 cases were followed in their intensive care units (ICU). It was observed that ICU hospitalization was effective on mortality (p=0.02). The median treatment duration of PCR negative and positive patients was 7(5-12.5) and 8 (4-15.5) days, and there was no significant difference. In the comparison of cure and discharge /exitus, it was observed that 15 (50%) of 30 PCR-positive patients died, which was statistically significant (0.002). A significant difference was found between the percentages of computed tomography uptake of the patients, no parenchymal involvement was observed in PCR-negative patients. (p<0.001).

Conclusions: It was determined that among the patients diagnosed with DKA in the ED, PCR positivity was found to be hospitalized in the ICU at a higher rate, and the in-hospital and 28th day mortality rates were higher.

Keywords: COVID-19, Diabetes Mellitus, Diabetic Ketoacidosis, Mortality, PCR

S- 050

Outcomes and Mortality of Patients with Measles Admitted to Emergency Department, in Somalia

Şule Yakar[1]

[1]Kayseri City Training and Research Hospital

Background and aim: Measles is a vaccine-preventable viral infection of humans caused by the rubeola virus. The illness typically begins with fever, runny nose, cough, and maculopapular rash. Measles is still an unresolved global issue causing significant morbidity and mortality. This study aims to evaluate the clinical profile and outcome of patients diagnosed with measles in the emergency department (ED) and investigate the mortality rates and the length of hospital stay.

Methods: This is a retrospective cross-sectional study conducted with patients diagnosed with measles in a tertiary care ED in Somalia. The demographic data, admission times, laboratory findings, the length of hospital stay, and mortality rates were registered and analyzed for statistical significance. The diagnosis of measles was made by anamnesis and physical examination. Since serology tests cannot be performed in our hospital, the patients' serology results are unavailable.

Results: One hundred nighty-six patients diagnosed with measles between 1 January 2018, and 31 December 2021 were included. The mean patient age was 3.5±5.38 years, and 58,37% were males. Most of the patients (48%) were admitted in 2021, most of the patients (71,4%) were hospitalized at the pediatric service and the mean length of hospital stay was 3.31±3.86 days. The rate of patients hospitalized in the ICU was 2%. The overall mortality rate was calculated as 3,1%.

Conclusions: This study's results may help clarify the epidemiologic characteristics of measles in undeveloped countries and raise awareness about the vaccine in the prevention of the disease among the public and health care professionals.

Keywords: measles, emergency department, mortality

S- 207

A Rare Emergency Case; The Clay Shoveler's Fracture

Ayşenur İncehasan[1], Mazlum Kılıç[1], Burcu Azapoğlu Kaymak[1]

[1]Fatih Sultan Mehmet Training And Research Hospital Emergency Medicine Department, Istanbul, Turkey

Background and aim: Clay Shoveler's fracture is a spinous process fracture mostly seen in the lower cervical vertebrae and at the level of the upper thoracic vertebrae. Fractures usually occur in the C7 and T1 vertebrae. In this presentation, we aimed to present a case of Clay Shoveler's fracture after blunt trauma.

Case: A 32-year-old male patient was admitted to the emergency department due to blunt trauma to the neck and back. He had no known disease history and no medication he used. There was no feature in his family history.His vital signs were: body temperature: 36 °C, HR: 92/min, BP: 175/100mmHg, sO2:98%, RR: 15/min. In the physical examination of the patient, there was tenderness in the lower cervical vertebrae and palpable swelling under the skin. There was no neurological deficit. Other system examinations were normal. A neck collar was attached to the patient and examinations were requested.Blood tests were leukocytes: 16.3 103/uL, hemoglobin 15.6 g/dL, platelets 254 103/uL. Other laboratory parameters were normal. Cervical and thoracic vertebra computed tomography was performed on the patient. Fractures were detected in the spinous processes of the C6 and C7 cervical vertebrae in their imaging. The patient was admitted to the neurosurgery service for further examination and treatment.

Conclusions: Clay Shoveler's fracture was referred to as spinous process fractures of the lower cervical and upper thoracic vertebrae after this type of fracture was identified in shovel workers. It is mostly seen in heavy-duty workers, in patients using high-dose steroids, and after trauma.Clay shoveler's fracture is more common in C7 and T1 vertebrae than other vertebrae due to the relative length and inclination of the spinous processes. Excessive hyperextension or sudden contractions of trapezius and rhomboid minor muscle groups in trauma cause fractures. Bidirectional cervical radiograph is usually sufficient to support the diagnosis. In addition, CT imaging can be performed for more extensive bone examination.In conclusion, although Clay Shoveler fracture are rare, they should be recognized by emergency physicians due to typical and radiological findings. In addition to being conservative in the treatment, the clinical follow-up results in the patients are quite good.

Keywords: emergency department, clay shoveler's fracture, trauma, spinous process

S- 110

Comparison of Neutrophil/Lymphocyte & Trombocyte/Lymphocyte Ratio with Gensini & Syntax scores for NON-STEMI

Mesut Mollaoğlu[1], Erkan Günay[2], Ertuğrul Altınbilek[2], Hakan Kilci[3]

[1]Bakırköy Dr.Sadi Konuk EAH Acil Tıp Kliniği
[2]Şişli Hamidiye Etfal EAH Acil Tıp Kliniği
[3]Şişli Hamidiye Etfal EAH Kardiyoloji Kliniği

Background and aim: Cardiovascular disease is the number one cause of mortality worldwide. The Gensini score is a method for evaluating the degree of coronary artery disease in clinical practice, it is scored based on the stenosis level. SYNTAX score is an angiographic grading tool evaluating anatomic complexity of the coronary artery disease. The correlation between the neutrophil/lymphocyte ratio (NLR) and platelet/lymphocyte ratio (PLR) with mortality for ischemic heart disease has been studied in the literature. We aimed to investigate patients who were diagnosed with Non-ST-Elevation Myocardial Infarction (NSTEMI) for a correlation between severity of stenosis and inflammatory response, by assessing the relation between SYNTAX and Gensini scores and NLR and PLR.

Methods: This is a retrospective, observational, single center cohort study. Patients over 18 years of age, admitted to our ED with a diagnosis of NSTEMI between 01.11.2017 to 01.11.2018 and underwent coronary angiography (CAG) were included in this study. From the CAG reports, Gensini and SYNTAX scores were calculated. The risk assessment results, and laboratory data was evaluated. Statistical analyses were calculated for a correlation between the scoring systems and NLR and PLR.

Results: Total of 229 patients were included in this study. The mean age of the patients was 62±12,9 with 180 male (%78,6) and 49 female patients (%21,4). When compared to the group with a Gensini score of < 35, patients with a score of >35 had significantly lower values of Lymphocyte % and higher values of NLR, Neutrophil % and CRP ($p< 0,05$). Whereas PLR showed no correlation to Gensini scores. ($p>0,05$). Patients with a moderate or high SYNTAX score, had higher NLR and PLR when compared to the patients with a low SYNTAX score ($p< 0,05$) but in all three risk groups CRP, Lymphocyte % and Neutrophil % showed no significant correlation ($p>0,05$).

Conclusions: In both scoring systems, NLR was found to be correlated with disease severity. PLR showed significant correlation with Syntax Scoring but showed no correlation with Gensini. NLR can be used as a prognostic factor for NSTEMI patients at the emergency department.

Keywords: Gensini score, SYNTAX, Coronary artery disease

S- 178

Demographic characteristics of intoxication cases admitted to our emergency department

Ahmet Çolakoğlu[1]

[1]hatay Eğitim Ve Araştırma Hastanesi

Background and aim: In our study, it was aimed to evaluate the drug intoxication cases who applied to the emergency department of our hospital as demographics.

Methods: The study was conducted with 343 patients over 18 years of age who applied to the adult emergency service of Hatay Training and Research Hospital between 01.01.2021 and 31.12.2021 due to drug intoxication. SPSS Windows 18 version was used for data analysis. Median and frequency values were used in the descriptive statistics of the data.

Results: In our study, the mean age of the patients was 26.7±7.8 years, and 280 (81.6%) of the patients were women. There was a history of suicide attempt in 6 (1.7%) of the patients and a history of comorbid disease in 6 (1.7%) of the patients. The mean arterial pressure of the patients was 81.5±12.7 mmHg, the mean pulse rate was 81.1±10.0 beats/min, the mean respiratory rate was 14.0±1.9 breaths/min, and the mean glaskow coma scale was 14.9±0.5 . Consciousness was normal in 95.3% of the patients. 51.9% of the patients were taking mulltidrag; The most frequently taken drugs were analgesics (53.9%) and antibiotics (28%). 93.9% of the patients used their own medication in the intervention. Activated charcoal was started in 89.2% of the patients, gastric lavage in 66.8% and specific antidote in 3.2%. 84% of the patients were hospitalized and treated. No mortality was detected in the patients hospitalized in our hospital..

Conclusions: Drug intoxications are cases that frequently apply to the emergency department and generally require hospitalization and follow-up

Keywords: Emergency medicine, Intoxication

S- 108

Which Is More Urgent? MI is it? CVD ?

Yeşim İşler[1], Halil Kaya[1]

[1]University of Health Sciences Turkey, Bursa Yuksek Ihtisas Training and Research Hospital

Background and aim: Cerebrovascular diseases are the third most common cause of death. The most common cause is atherosclerosis. The most common causes of cerebrovascular diseases seen at young ages are cardioembolism, arterial dissection and atherosclerosis. Cardiac causes are responsible for 33% of strokes in young people.

Case: A 54-year-old male patient was brought to our emergency clinic by 112 with the complaint of speech disorder that started about an hour ago. When the patient came, his TA was: 163/117 mmHg, Fever: 36.20C, Nb: 100 beats/min, SaO2: 98%. He had a history of smoking 40 packs/year, hypertension, surgery due to gastric perforation a week ago, coronary angiography and stent 7 times. The general condition of the patient was good, conscious, oriented, cooperative, IR+/+, facial asymmetry and no deficits in the extremities. He stated that his speech was normally faster. He was also trying to remember some words, having trouble saying them. No pathology was detected in the other system examination. There was ST elevation in V1-V6 on EKG (Figure 1). The patient's brain tomography and diffusion magnetic resonance were taken. Acute infarction was detected in the left medial cerebral artery in diffusion magnetic resonance imaging. At the same time, the patient's troponin I value was 24,000 ng/l. The patient underwent transthoracic echocardiography and was admitted to the coronary intensive care unit. Coronary angiography revealed 50-60% stenosis in the proximal coronary. After medical treatment recommendation, the patient was taken over by neurology for the treatment of cerebrovascular disease.

Conclusions: Appropriate cardiac monitoring and effective management of arrhythmias in cerebrovascular disease are important to prevent cardiac morbidity and mortality. It should be remembered that the most common cause of the etiology of cerebrovascular disease at a young age is cardiac pathologies and this information should not be ignored in the evaluation.

Keywords: Emergency, Cerebrovascular disease, Myocardial infarction

S- 114

EVALUATION OF EFFECTIVENESS OF LACTATE CLEARANCE AND PERFUSION INDEX ON MORTALITY PREDICTION IN PATIENTS WITH DECOMPENSATED HEART FAILURE WHO WERE ADMITTED TO EMERGENCY DEPARTMENT WITH COMPLAINT OF SHORTNESS OF BREATH

Necati Akyılmaz[1], Erdem Çevik[2]

[1]SBÜ Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi, Acil Tıp Kliniği
[2]SBÜ Sultan 2.Abdülhamid Han Eğitim Ve Araştırma Hastanesi

Background and aim: Acute heart failure means rapid onset or worsening of symptoms and/or signs of heart failure. It is a life-threatening medical condition requiring urgent evaluation and treatment, typically leading to urgent hospital admission. Our aim is; to evaluate the efficacy of lactate clearance and perfusion index on the 1-month mortality rate in patients with acute decompensated heart failure who were admitted to emergency service with complaints of shortness of breath.

Methods: This prospective observational study was conducted between 1 May 2017 and 31 October 2017 at the Emergency Department of Sağlık Bilimleri University Şişli Hamidiye Etfal Education Research Hospital, which is a third level emergency service. Among the patients presenting with complaints of shortness of breath in the emergency department, those considered to have a diagnosis of acute decompensated heart failure were accepted to the study. Age, vital findings, laboratory tests, perfusion index values, echocardiographic findings, the first lactate value, the third lactate value were noted in the data collection form. 1 month after the admission date; the patient's mortality status was screened via the death notification system.

Results: A total of 67 patients were included in the study. There was no statistically significant difference between the patients with and without mortality compared to the values of lactate clearance, the perfusion index, and the 3rd hour perfusion index (p = 0.302, 0.790, 0.718, respectively).

Conclusions: In our study, the perfusion index and 3-hour lactate clearance values in patients with acute decompensated heart failure were not found to affect the one-month mortality.

Keywords: Decompensated heart failure, Lactate clearance, Perfusion index

S- 064

MORTAL ORBITAL MUCORMUCOSIS IN A COVID-19 PATIENT

Gizem Akçın[1], Fatih Selvi[1], Göknur Öztürk[1]

[1]acil, Antalya Eğitim Ve Araştırma Hastanesi, Antalya, Türkiye

Background and aim: Mucormycosis is a rare, often rapidly progressing, opportunistic fungal infection that can result in death if not diagnosed and treated early. It is usually seen in patients with immunosuppressed or uncontrolled diabetes. Diagnosis is made by the appearance of septum-free hyphae in the tissue and species distinction is made by culture. Correction of the underlying disease forms the basis of aggressive surgical debridement and systemic antifungal therapy.

Case: A sixty-one-year-old woman had vision loss in the left eye, intense chemosis, and the eye was protruded for the past twenty days. On physical examination, there was no light reflex, eye movements were limited in all directions, and hyperemia was present. He had a history of chronic disease, diabetes mellitus, hypertension, chronic heart failure, and morbid obesity. There was no history of smoking, alcohol or substance abuse. In the evaluation made in the emergency room examination room; It was determined that there was a 10-day pandemic service hospitalization in an external center due to covid pneumonia 40 days ago, and that he received pulse steroid therapy during the time he was followed up in the hospital. The patient, who had applied to an external center again with complaints of swelling, cough, and sputum in the left eye 23 days ago, was followed up in isolation at home. In the follow-ups, vision loss developed in the left eye, edema increased and the eye protruded outward, and the patient applied to the emergency service again.

Conclusions: In this case report, a case report of retroorbital abscess and mucormycosis accompanied by osteomyelitis in a patient with known diabetes and receiving pulse steroid therapy in the treatment of COVID-19 will be discussed. The success of treatment in mucormycosis is closely related to early diagnosis and early initiation of treatment. In its treatment, all necrotic tissues should be debrided and systemic antifungals should be used. When the cases in the literature are examined, despite the aggressive surgical treatment and systemic antifungal use in the treatment, as seen in our patient, the immunosuppressive picture and comorbid conditions in the patients can lead to mortal results.

Notes (Optional): covid19

Keywords: covid, eye

S- 008

The role of procalcitonin/albumin ratio and CRP/albumin ratio in predicting in-hospital mortality in COVID-19 patients

Mustafa Kürşat Ayrancı[1], Kadir Küçükceran[1], Sedat Koçak[1]

[1]Emergency Department, NecmettinErbakan University, Meram School of Medicine, Konya

Background and aim: Hospitalized coronavirus disease 2019 (COVID-19) patients have higher mortality rates. Parameters to predict mortality are needed.Therefore, we investigated the effectiveness of PAR and CAR in predicting in-hospital mortality in hospitalized COVID-19 patients.

Methods: In this study, 855 patients included. Patients' procalcitonin/albumin ratio (PAR), and CRP/albumin ratio (CAR) values were recorded from the hospital information management system. The patients were evaluated in two groups according to their in-hospital mortality status.

Results: In-hospital mortality was observed in 163 patients (19.1%). The median PAR and CAR values of patients in the non-survivor group were statistically significantly higher than those of patients in the survivor group (PAR:0.069 [0.031–0.326] and 0.019 [0.012–0.037], respectively; P<0.001. CAR:27.602 [12.488–44.907] and 7.469 [2.66–18.926], respectively; P<0.001). The AUC and odds ratio values obtained by PAR to predict in-hospital mortality were higher than the values obtained by procalcitonin, CAR, albumin, and CRP (AUCs of PAR, procalcitonin, CAR, albumin, and CRP: 0.804, 0.792, 0.762, 0.755, and 0.748, respectively;odds ratio of PAR>0.035, procalcitonin>0.137, CAR>20.59, albumin<4.015, and CRP>63; 8.215, 7.134, 5.842, 6.073, and 5.07, respectively). Patients with concurrent PAR>0.035 and CAR>20.591 had an odds ratio of 15.681 compared to patients with concurrent PAR<0.035 and CAR<20.591.

Conclusions: In this study, PAR was found to be more valuable for predicting in-hospital COVID-19 mortality than all other parameters. In addition, concurrent high levels of PAR and CAR were found to be more valuable than a high level of PAR or CAR alone.

Keywords: COVID-19, Procalcitonin, C-Reactive Protein, Albumins, In-hospital Mortality

S- 177

Cardiac arrest due to butane toxicity: A Case Report

Derya Abuşka[1]

[1]SBÜ İstanbul Eğitim ve Araştırma Hastanesi

Background and aim: Butane gas, popularly known as lighter gas, is a hydrocarbon and passes through the alveoli into the bloodstream by passive diffusion. The lungs are the most damaged organ; gas evaporates, displacing oxygen, and the patient enters a hypoxic state. This article presents a 23-year-old male patient brought to our emergency department as an out-of-hospital cardiac arrest after lighter gas inhalation.

Case: A 23-year-old male patient was brought by ambulance with cardiopulmonary arrest. According to the information obtained from the patient's friends, the patient was addicted to lighter gas. The patient's head and neck were particularly cyanotic. Pupillary fix dilated, and bilateral scleral hemorrhage was observed. The patient's fingertip blood sugar was 150 mg/dl. Uninterrupted chest compressions were continued, and the patient underwent endotracheal intubation. Equal ventilation of both lungs was checked by auscultation. Asystole was detected in all rhythm controls. Although the patient was effectively ventilated with an Ambu-bag with an oxygen reservoir, the fingertip saturation of the patient could not be measured at all, and his cyanosis did not regress. Blood gas test result was pH: 6.88 pCO2:98.2 mmHg pO2:17.6 mmHg sO2:17.2% lactate: 6,9 mmol/l. Pneumothorax was excluded with lung ultrasound, and no pericardial tamponade was observed with focused cardiac ultrasound. Intubation tube location was reconfirmed. However, oxygenation of the patient could not be achieved. In the following minutes, hemorrhagic content was aspirated from the intubation tube. After 1 hour of CPR, the patient was considered dead.

Conclusions: Cases of diffuse alveolar hemorrhage caused by button toxicity have also been reported in the literature. In our case, the patient's presentation findings were consistent with asphyxia, and the inability to achieve oxygenation despite an effective advanced airway method and the presence of hemorrhagic contents from the intubation tube suggested that our patient had a diffuse alveolar hemorrhage. It was evaluated as a forensic case, and an autopsy was performed. Correspondence continues in order to reach the official autopsy report. Another issue that remains a question mark in our minds that needs to be emphasised is, what if we could apply ECMO to this patient during CPR, could we return the patient?

Keywords: butane gas, diffuse alveolar hemorrhage, cardiac arrest

S- 148

Prepontine System Bleeding

Arife Aydan Ensari[1], Vildan Avcu,[1], Talha Özsu,[1], İsmail Enver Obuz[1], Utku Murat Kalafat[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Subarachnoid hemorrhage is a pathological condition in which blood diffuses into thesubarachnoid space. Traumatic subarachnoid hemorrhage is a post-traumatic rupture of theintracranial arteries and bridging veins or in which blood is diffused into the subarachnoid space bydiffusion from cortical contusions. The most important factor in etiology is traffic accidents, and it ismore common in men in their forties. In our case, the patient was brought by 112 after falling off thescooter.

Case: A 30-year-old male patient was brought to us by 112 after falling off a scooter. He wasunconscious when he arrived. He was disorientated and had limited cooperation, and GCS wasevaluated as 11. Vital signs were stable. In his neurological examination, there was no motor sensorydeficit, bilateral light reflexes exist, and the pupils were bilaterally isochoric. In his physicalexamination, other system examinations were normal except for ecchymosis in the right periorbitalarea and abrasions on the face and arms. In our patient's brain CT, hemorrhage was observed in theparenchyma between the lateral ventricles . In our patient who was consulted withneurosurgery, emergency operation was not considered and intensive care follow-up wasrecommended. Our patient was admitted to the intensive care unit, as no additional pathology wasdetected in the emergency service follow-up and examinations.

Conclusions: In acute cases, early diagnosis and treatment method reduces the rate of death orpermanent neurological deficit. 69 million people have traumatic brain injury each year, andtraumatic brain injury is the cause of subarachnoid hemorrhage. Traumatic sah hasbeen identified as an adverse prognostic factor leading to progressive neurological deterioration andincreased morbidity and mortality. Like aneurysmal subarachnoid hemorrhages, traumaticsubarachnoid hemorrhages are evaluated according to the amount and distribution of blood on CT.Its treatment is mainly directed towards the complications of bleeding. In patients with traumaticsubarachnoid hemorrhage, it is thought that the patient's age, low entry GCS, localization in thefissures or excessive clot thickness, co-lesion such as acute subdural hematoma or intracerebralhematoma affect the prognosis negatively. Although traumas with high energy cause this clinic, wemay encounter such lethal clinics in traumas with low energy as in our case. Every trauma caseshould be handled and evaluated with the worst case scenario.

Keywords: intracerebral hematoma, intracranial pressure, subarachnoid hemorrhage, trauma

S- 021

Giant Balloons In The Head

Ali Kablan[1], Anıl Burak Tülü[1], Hakan Oğuztürk[1]

[1]Ankara Bilkent City Hospital

Background and aim: Aneurysms are pathologies that occur with the disruption of the arterial wall, often at the branching points of the vascular structures in the brain. It has been reported that they constitute 2-5% and 2-13% of intracranial aneurysms. Its incidence among all aneurysms is 4-5%. . Giant aneurysms occur in 34-57% internal carotid artery, 24-60% posterior circulation, 10% anterior cerebral artery and 9% middle cerebral artery. We also wanted to draw attention to giant aneurysms, which are rare and have a high mortality rate in emergency departments.

Case: A 72-year-old female patient was brought to the emergency room due to speech disorder and sleepiness that started today. Arterial blood pressure: 219/139 mmHG, heart rate: 108/min, saturation: 96%. Consciousness was sleepy, glasgow coma scale (GCS) was 13 points. Blood sugar; It was 170 mg/dL. In the patient's history, it was learned that a giant aneurysm was detected in the brain by neurosurgeon 2 weeks ago and he recommended an operation. However, the patient did not accept the operation. In the brain tomography of the patient, an aneurysm sac with dimensions of 64x60x52 mm in the widest part of the median cerebral artery (MCA) trace on the left and heterogeneous areas suggestive of active hemorrhage was noted.

Conclusions: Intracranial giant aneurysms are pathologies with high mortality.

Notes (Optional): . Aneurysm hemorrhages should be kept in mind in the emergency department, in patients who suddenly turn unconscious while they are conscious. High blood pressure, on the other hand, acts as a factor increasing mortality in such patients.

Keywords: Aneurysm, Hemorrhage, Giant, Cerebral, Emergency

S- 075

Tracheoesophageal Fistula

Ayşe Nur Gökkaya[1], Fatih Selvi[1], Samiye Kocal[1]

[1]Acil Tıp Kliniği, Antalya Eğitim ve Araştırma Hastanesi,Antalya,Türkiye

Background and aim: It is the presence of a fistula between the trachea and the esophagus. It is a pathology that is mostly diagnosed by fetal ultrasonography in early pregnancy. Although it is very rare in the adult period. Tracheoesophageal fistula treatment is difficult and fatal. The cause of death is malnutrition resulting from lung infection as a result of aspiration. Today, the most important pathology in the development of TEF is pressure necrosis in the membranous part of the trachea and the esophageal wall trapped between the tracheostomy cannula or intubation tube and the nasogastric tube. Other causes are malignancy, closed or open trauma, mediastinal granulomatous infections, immunodeficiency states and iatrogenic trauma.

Case: In our case, a 24-year-old patient applied to our emergency department with the complaints of coughing while eating for 20-25 days, pain in the right side of the chest, and increased bad breath in the breath. It is accompanied by dyspnea and sputum complaints. Known disease, medication used, and history of previous surgery does not exist. Admission vitals: blood pressure: 125/75 nbz: 101 fever: 36.4, oxygen saturation: 87, and the oxygen saturation of the patient increased to 96 with nasal oxygen support. On physical examination, breathing at the base of the right lung their voices have decreased. In thorax CT, an appearance compatible with effusion up to 6 cm deep in the right pleural space, air distension in the mid-distal esophagus, and a suspicious appearance for a mid-level tracheoesophageal fistula of the esophagus were observed. In order to confirm the diagnosis, the gastroenterology clinic was consulted to plan the endoscopy. Tracheoesophageal tract was seen as a result of endoscopy and he was referred to an external center thoracic surgery clinic for tracheoesophageal fistula surgery.

Conclusions: Since TEF has fatal complications, early diagnosis and surgical intervention are very important in terms of mortality. The most common complications are aspiration pneumonia and fatal conditions such as sepsis and bleeding as a result of lung abscess.

Notes (Optional): Spontaneous closure of a tracheoesophageal fistula is rare and usually requires surgical closure.

Keywords: Tracheo, Fistula, Esophagus

S- 100

Acute Brachial Arterial Embolism with Coexisting Incidental Pulmonary Embolism: A Case Report

Efe Kanter[1], Osman Sezer Çınaroğlu[1]

[1]Izmir Katip Celebi University Ataturk Training and Research Hospital

Background and aim: Acute extremity ischemia is defined as sudden decrease in extremity perfusion and the incidence is approximately 1.5/10,000 people annually. Acute thromboembolism in the arteries of the upper extremities are seen rare but requires prompt diagnosis and treatment. They are usually easy to diagnose; associated with clinical picture as pulselessness, pain, pallor, paresthesia, paralysis and poikilothermia. Treatment can be conservative or surgical, but surgical treatment's considered superior. Incidentally detected cases of pulmonary embolism(PE) can be seen on routine CT-scans but most can be managed with outpatient anticoagulant therapy. We present a young male case who applied to our emergency department(ED) with the complaint of right arm pain. While being investigated for acute arterial embolism, patent foramen ovale(PFO) and bilateral acute PE were detected incidentally.

Case: 48-year-old male patient with no chronic disease or drug use applied to our ED with pain, numbness and weakness in right arm started suddenly 1 hour before his arrival. In the physical examination pulses were absent, extremity was pale, cold and painful. Patient was immediately consulted to cardiovascular surgery(CVS) with pre-diagnosis of brachial artery thromboembolism. CT-angiography showed thrombus in brachial artery. The patient didn't describe any respiratory distress, chest/back pain; ECG was in sinus rhythm, saturation was 91-92%. In pulmonary-artery CT-angiography, acute thrombus in both main pulmonary arteries were detected. In the echocardiography performed by the cardiologist, who was requested for paradoxical-embolism, many microbubble transitions from-right-to-left were observed in the interatrial-septum. Paradoxical-embolism due to Patent Foramen Ovale(PFO) was considered in the patient within present and subsequent TEE findings. The pulse became palpable after emergency brachial embolectomy applied. He was discharged from service with good general condition, with anticoagulant treatment. In pulmonary-artery CT-angiography taken during the follow-up, no thrombus was detected.

Conclusions: Acute arterial thromboembolism should be diagnosed in ED and CVS should be contacted very quickly for surgical treatment if necessary. Timing is one of the most important factors determining morbidity, as it can lead to serious complications in case of delay in diagnosis or treatment. Although it's rare, the possibility of accompanying paradoxical-embolism should also be considered, and treatment shouldn't be delayed if it is detected.

Keywords: Arterial Embolism, Coexisting Embolism, Incidental Pulmonary Embolism, Paradoxical Embolism, Thromboembolism

S- 005

The impact of environmental factors on the spread of COVID-19

Özgür Söğüt[1], Muhammed Salih Topaloğlu[1], Hüseyin Ergenç[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Background and aim: This study investigated potential predictive factors for mortality and disease spread in patients with confirmed COVID-19 who were consecutively admitted to our tertiary hospital of Emergency Department

Methods: The data for this study were obtained from the Turkish Ministry of Health's Public Health Management System and included the number of daily and cumulatively confirmed COVID-19 cases. Climate indicators (mean temperature, minimum temperature, maximum temperature, mean humidity, wind speed) for the city of Istanbul were collected between 01 June 2020, and 28 February 2021, during the 39-week study period from the Istanbul Meteorology 1st Regional Directorate.

Results: The study population consisted of 169, 058 patients, of which 89, 091 (52.70%) were male and 79, 967 (47.30%) were female. From the initial group, 354 patients died, resulting in a mortality rate of 0.21%. The highest number of patients in our study were admitted in December (n = 21, 610) and the highest number of deaths (n = 46) occurred in November. When disaggregated according to season, the highest number of patients (n = 63, 544) was in winter and the highest number of deaths in autumn and winter (n = 129 and 127, respectively). In a correlation analysis based on the total number of patients and the climate indicators, a statistically significant, negative correlation was found between the mean, maximum and minimum temperatures, and a significant, positive correlation between the total number of patients and the mean relative humidity. The relationship of the number of deaths to the mean, maximum and minimum temperatures was significant and negative. The correlation analysis also showed a significant negative relationship between the mean, maximum and minimum temperatures and the total number of patients, the number of deaths and mortality. Finally, there was no significant relationship between wind speed and the total number of COVID-19 patients, the number of COVID-19-related deaths, or COVID-19-related mortality

Conclusions: Our results indicate an increased number of COVID-19 cases during the 39-week study period, when the mean, maximum and minimum temperatures were consistently low and the mean relative humidity consistently high.

Keywords: COVID-19, climate indicators, mortality

S- 142

A Rare Case; Guillain-Barré Related With Covid 19

Gokhan Cabar[1], İdris Arslan[1], Murside Yayli[1], Nedim Uzun[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training And Research Hospital

Background and aim: Guillain Barré Syndrome(GBS) is the most common cause of acute flaccid paralysis.Most patients present with commonly upper respiratory tract infection,before the onset of progressive motor weakness.GBS is mostly caused by Campylobacter jejuni.During covid19 pandemic starts there is an increasing number of neurological complications recognized with COVID-19 including patients with GBS.In this study,we present a patient with GBS possibly caused by covid19.

Case: A 51 year old male patient applied to our emergency trauma department with the complaint of falling down at home.All vital signs were stable on the arrival.In his history, it was found that the patient felt infirmity in his legs while trying to get out of the bed.In the physical examination,bilateral muscle strength in the lower extremities was 2/5 and bilateral muscle strength in the upper extremity was 4/5.Other physical examination findings were normal.The acute neuropathology was not detected in the cranial CT and diffusion MRI.In his thorax CT,bilateral ground glass images were detected and upon the CT results,the patient's history was inquired again,it was found that the patient had diarrhea and cough for one week.EMG was performed on the patient because it was assumed that secondary acute polyneuropathy to viral infection is in place.Since left ulnar flexor response could not be obtained in EMG and the persistence of right peroneal nerve flexor response was found to be decreased,and these findings were thought to be early signs of acute polyneuropathy,the patient was transferred to the neurology clinic.Serum immune electrophoresis,stool parasitology tests and serum serology tests were performed in the neurology clinic and no etiological agent was found to explain the current symptoms.It was thought that covid19 may be a factor in the etiology of acute polyneuropathy of the patient whose Covid19 pcr test was positive.The patient,who had treatment for the etiology and GBS,was discharged after his full recovery.

Conclusions: In patients whose fall mechanism is unknown,all physical examination should be performed and additional complaints of the patient should be adressed.Cerebral causes such as stroke should be excluded in patients.Apart from the widely known factors,it should be taken account that covid19 might also be involved in the etiology of GBS.

Keywords: guillian barre, covid 19, gbs, acute polyneuropathy, sars-ncov-2

S- 170

Examination Of Blood Levels After Intralipid Emulsion Therapy Of Oral And Intravenous Verapamil Given In Toxic Dose

Yiğit Eşref Bayazıtlı[1], Sinan Karacabey[2], Erkman Sanrı[2]

[1]Esenyurt Necmi Kadıoğlu Devlet Hastanesi
[2]Marmara Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: In recent years, ILE has been using as an antidote in acute lipophilic drug intoxications. Verapamil is a highly lipophilic CCB used in the treatment of cardiovascular diseases. In this study, it was aimed to investigate the effect of ILE on blood drug levels and mortality in acute verapamil poisonings.

Methods: 40 adult male rats were randomly divided into 5 groups. First group was given 2 ml of saline orally, 12.4 ml/kg of saline intravenously (control group). Second group was given 16 mg/kg of verapamil intravenously, 12.4 ml/kg of saline intravenously. Third group received suspension of 150 mg/kg verapamil dissolved in 2 ml of saline by oral gavage, followed by intravenous 12.4 ml/kg of 20% ILE. The fourth group was given 16 mg/kg of verapamil intravenously, followed by 12.4 ml/kg of 20% ILE intravenously. Fifth group, 150 mg/kg of verapamil suspension dissolved in 2 ml of saline was given by oral gavage, then 12.4 ml/kg of 20% ILE by oral gavage. After 2 hours, the rats euthanized by cervical dislocation and their blood was collected. Verapamil levels were determined in the blood by HPLC method.

Results: The group given intravenous verapamil, the mean plasma drug level was 76,34743 mg/L. The group treated with intravenous ILE after intravenous verapamil, the mean plasma drug level was determined 5.223795 mg/L. The group given intravenous ILE after oral verapamil, the mean plasma drug level was determined 6.546192 mg/L. The group given oral ILE after oral verapamil,the mean plasma drug level was 5.448727 mg/L. All groups were examined, although the results were promising and significant, but statistically significant difference couldn't be found. Verapamil was given at the median lethal dose determined for rats, and 4 rats died in the intravenous verapamil group. In the group treated with intravenous ILE after intravenous verapamil, 6 rats died. Statistically significant effect of ILE treatment on mortality wasn't demonstrated.

Conclusions: In our study, there was no significant difference in the effect of ILE treatment on mortality in rats given median lethal dose (LD50) of verapamil. Although plasma verapamil levels appeared significant, statistically significant difference wasn't demonstrated.

Keywords: Verapamil, Toxicity, Intralipid emulsion, Fat emulsions, Oral manifestation

S- 206

EVALUATION OF BRAIN TOMOGRAPHY OF PATIENTS UNDER 2 YEARS OLD, COMING TO THE EMERGENCY DEPARTMENT WITH HEAD TRAUMA

Ertuğrul Altuğ[1], Abdullah Erdoğdu[1], Semih Korkut[1], Aynur Şahin[1], Mücahit Kapçı[1], Ramazan Güven[1]

[1] Basaksehir Cam and Sakura City Hospital, Emergency Department

BACKGROUNDS AND AIM: Every day, many infants with head trauma apply to the emergency services. The fact that the anamnesis is taken from the family and the neurological examination is relatively subjective in this patient group makes it difficult to evaluate the patients. This study includes a retrospective superficial analysis of patients under the age of 2 who came to the emergency department with head trauma.

METHODS: This retrospective study was conducted between September 2021 and September 2022 in the education and research hospital emergency department of patients under the age of 2 who were admitted to the emergency department with head trauma and had brain tomography; It includes the evaluation of fracture-bleeding in tomography and its numerical note.

RESULTS: CT scans of patients under the age of 2 who presented to the emergency department with head trauma were evaluated. Out of a total of 982 patients, 328 patients were included in the study because their notes on the Hospital Information Management System were complete and they had pure head trauma. While 2 of the patients died, it was determined that 2 patients fell from a height above 1 meter. It was observed that numerically male patients were more likely to apply to the emergency department with head trauma. It was observed that the falls from the distance below 1 meter had a much better course than the falls from the distance above 1 meter. Fracture was observed in 9 of 179 patients and bleeding was observed in 3 patients in falls below 1 meter.

TABLE 1. NUMERICAL FEATURES OF PATIENTS

PATIENT	FALL DISTANCE	
	BELOW 1 METER	ABOVE 1 METER
FEMALE	75 (%41)	61 (%40)
MALE	104 (%59)	88 (%60)
NORMAL CT	167 (%94)	87 (%58)
FRACTURE IN CT	9 (%5)	42 (%28)
HEMORRHAGE IN CT	3 (%1)	20 (%13)
NORMAL CONSCIOUSNESS	178 (%99)	139 (%93)
ABNORMAL CONSCIOUSNESS	1 (%1)	10 (%7)
DISCHARGE	172 (%96)	110 (%73)
HOSPITALIZED	7 (%4)	39 (%27)
LIVED	179 (%100)	147 (%99)
DIED	0	2 (%1)

ARGUMENT: In patients under 2 years of age who come to the emergency services with head trauma, tomography and interpretation are important in terms of understanding the clinical course of the patient and determining the need for observation in the hospital. According to PECARN, Computed Tomography (CT) is recommended in patients with low GCS or patients with palpable or suspected skull fracture. In our study, it was observed that pathology was detected in the CT scans of most of the patients who met these criteria. According to the study of Mastrangelo et al (1), it was stated that the specificity rate in patients who were decided to undergo CT according

to PECARN was higher than other CT rules. According to Gerilmez et al (2), it was stated that clinicians' request for tomography according to the PECARN classification may prevent unnecessary CT scans.

CONCLUSION: Among the patients who had head trauma by falling under 1 meter, 75 were girls and 104 were boys. While CT scans of 167 were normal, 9 had fractures and 3 had bleeding. While there was 1 patient with poor consciousness among these patients, hospital follow-up was performed for 7 patients. While there are 149 patients with trauma over 1 meter, 87 of them have normal tomography. While 42 have fractures, 20 have bleeding. The consciousness level of 10 patients was not normal and 39 patients were followed up in the hospital. 2 patients died**.** Brain tomography requested in head trauma patients under the age of 2 who apply to the emergency services plays an important role in understanding the patient's clinic and determining the hospitalization and observation. If the height that causes head trauma is above 1 meter, it has more pathological results than if it is below 1 meter.

Keywords: trauma, pecarn, brain tomography

REFERENCES

(1) Mastrangelo M, Midulla F. Minor Head Trauma in the Pediatric Emergency Department: Decision Making Nodes. Curr Pediatr Rev. 2017;13(2):92-99. doi: 10.2174/1573396313666170404113214. PMID: 28393708.

(2) Gerilmez A, Calışaneller AT. Compliance with PECARN head injury decision rules in children under two years old. Ulus Travma Acil Cerrahi Derg. 2020 May;26(3):462-468. English. doi: 10.14744/tjtes.2019.36902. PMID: 32436970

SÖZLÜ BİLDİRİLER TAM METİN

S-1105

RENAL ANGIOMIOLIPOM HEMORAGE

Enad Kenan

Background: Angiomyolipomas are basically benign renal tumors from the group of perivascular epithelioid cell tumors that can cause local complications. 80% of cases are sporadic and solitary. The remaining 20% present as part of the tuberous sclerosis complex and pulmonary lymphangioleiomyomatosis. The clinical spectrum of angiomyolipoma is very broadIt creates a clinical spectrum ranging from an incidentally detected small kidney mass to life-threatening retroperitoneal hemorrhage. Symptoms develop in 68-80% of masses larger than 4 cm, hemorrhage is observed in approximately 50-60%, and hypovolemic shock develops in one-third of patients presenting with hemorrhage (1-2). In this report, a case diagnosed as Renal Angiomyolipoma Hemorrhage is reported.

Case: A 56-year-old female patient applied to the emergency department with the complaint of right flank pain that started in the morning. She stated that her pain was colic, writhing and in attacks. There was no known additional disease other than hypertension. On examination, there was tenderness of the right costovertebral angle. The patient had no complaints of dysuria, polyuria or pollakiuria. In the ultrasonography of the patient who did not have any pathology in laboratory and urinalysis, several hyperechogenic nodular lesions, the largest of which was 11 mm in diameter, were observed in the right renal cortex (angiomyolipoma?). On contrast-enhanced abdominal CT of the patient, a 5 cm mass lesion containing heterogeneous areas of fat density was observed in the lower pole of the left kidney. The outlook was primarily evaluated in favor of angiomyolipoma. In addition, hematoma reaching 5.5 cm in the thickest part of the retroperitoneal area in the left perirenal area (Anjiomyolipoma hemorrhage?) was observed. Urology consultation was requested and the patient was admitted to the urology service with the preliminary diagnosis of "Renal Angiomyolipoma Hemorrhage".

Conclusion: While small angiomyolipomas can only be followed up, intervention may be necessary to provide a definitive diagnosis for large ones, those that cause bleeding or pain, or suspicious masses that cannot be differentiated from low fat content and RCC. A nephron-sparing approach should be preferred for the surgical treatment of angiomyolipomas (1-2). Renal Angiomyolipoma Hemorrhage should be kept in mind in the differential diagnosis of patients presenting to the emergency department with flank pain.

Anahtar kelimeler: Renal angiomyolipoma hemorrhage, flank pain, urology

References

1. Oesterling JE, Fishman EK, Goldman SM: The management of renal angiomyolipoma. J Urol 1986;135:1121–4.

2. Dickinson M, Ruckle H, Beaghler M: Renal angiomyolipoma: optimal treatment based on size and symptoms. Clin Nephrol 1998;49:281–6.

Evaluation of Pandemic Intensive Care Experiences of Emergency Medicine Specialists

Ertuğrul Altuğ

Background: The Covid-19 pandemic is a disease with high mortality rates that is effective all over the world. It has been effective since December 2019. The most common cause of death is pneumonia.

Methods: The study included 300 patients who were hospitalized in the pandemic intensive care unit and whose diagnosis of Covid-19 was confirmed. Exclusion criteria for the study were determined as patients under 18 years of age, pregnant, unfollowable, and negative PCR test. Covid-19 patients outside these criteria were included in the study. Our study was retrospective and single-center.

Results: The study was conducted with 300 cases. 54% (n=162) of the cases were male and 46% (n=138) were female. The median age of the cases was 66 (57.0-76.0 years). Looking at the outcomes; while 41.8% of the cases were discharged; mortality was observed in 58.2% of them. The median length of stay of the cases was 6 (3-18) days.

Conclusion: As a result, no disruption was observed in the treatment of patients who were followed up and treated by the emergency medicine clinic during the Covid-19 pandemic. Mortality rates were found to have similar results with the literature.

Keywords: Covid-19, Intensive Care Unit, ARDS

1. Introduction: The new type of coronavirus-2 (SARS-CoV-2) that causes severe acute respiratory syndrome (ARDS) was first identified in China in December 2019.(1) Covid-19 outbreak, According to the World Health Organization (WHO) Dashboard (http://covid19.who.int/), as of August 23, 2022, there were 594 367 247 confirmed cases and 6 451 016 Covid-19 deaths worldwide. Covid-19 was reported for the first time in our country on March 11, 2020. In our country, T.C. According to the Ministry of Health Dashboard (http://covid19.saglik.gov.tr), as of August 23, 2022, 16 million cases caused death in 100 thousand.

In addition to flu symptoms such as fever, cough, and headache, Covid1-19 patients reported gastrointestinal symptoms such as diarrhea and nausea in approximately 30% of them. (2,3) In one study, it was reported that the most common complication was pneumonia (82.3%). (2) Patients with advanced age, obesity, hypertension, diabetes mellitus, heart and lung diseases generally require hospitalization and even intensive care units (ICU). (4,5) At the same time, ARDS, which is the most common cause of death due to severe SARS-CoV-2 infection, is developing. (6,7) In conclusion, Covid-19 can be defined as a serious respiratory disease that causes death.

In our country, the course of the Covid-19 pandemic has shown parallelism with the world. Therefore, the intensive care hospitalization rates, approximately 1 month after the first case, are similar to studies abroad. (8-10) Therefore, many intensive care units and intensive care doctors were needed. Due to the lack of sufficient manpower, many department specialists have started to work in intensive care units, according to the Covid-19 pandemic guide. (11)

The primary aim of this study is to compare the intensive care experience and mortality rates of emergency medicine specialists with other ICU rates. As a result, it is to determine intensive care management skills.

2. Material-Method

2.1. Study Settings

This study was started after obtaining approval from the ethics committee of our tertiary education and research

hospital (Ethics committee dated 29.12.2021 and decision number 2021.12.304). Our study was retrospective and single-center. The study was conducted with patients who were admitted to the pandemic intensive care unit between 01.01.2021 and 01.01.2022, whose diagnosis of Covid-19 was confirmed and who met the inclusion criteria in the study. Demographic data, medical histories, laboratory results, hospitalization times, intubation derums and outcomes of the patients were recorded in the case form.

2.2. Study Population

The study included 300 patients who were hospitalized in the pandemic intensive care unit and whose diagnosis of Covid-19 was confirmed. Exclusion criteria for the study were determined as patients under 18 years of age, pregnant, unfollowable, and negative PCR test. Covid-19 patients outside these criteria were included in the study.

2.3. Data Collection

Patients were identified by scanning the file and automation system (Hospital Information Management System-HIMS). For Covid-19, the diagnosis code 'U07.3' ICD10 was used from the automation system. As a result of the scan, 472 Covid-19 patients were detected. Of the 472 detected cases, 92 were excluded from the study because the PCR test was negative and 57 of them could not be followed up. Of the remaining 323 cases, 300 were randomly included in the study.

2.4. Statistical Analysis

Data were analyzed with SPSS Package Program version 24.0. Number, percentage, mean, standard deviation, median, minimum and maximum were used in the presentation of descriptive data. The conformity of the data to the normal distribution was evaluated with the Kolmogorov-Smirnov Test. Continuous variables that did not show normal distribution in univariate analysis were expressed as the median (IQR) and compared using the Mann Whitney U test. Pearson Chi-Square Test was used in the analysis of categorical variables. Fisher's Exact Test was used in the presence of less than 5 variables in categorical variables.

P <0.05 was accepted as statistical significance level.

3. Results: The study was conducted with 300 cases. 54% (n=162) of the cases were male and 46% (n=138) were female. The median age of the cases was 66 (57.0-76.0 years). Looking at the outcomes; while 41.8% of the cases were discharged; mortality was observed in 58.2% of them. The median length of stay of the cases was 6 (3-18) days. The median (IQR) values of the vital parameters of the subjects in the study are given in Table 1.

Table 1 Analysis of demographic data, vital parameters and laboratory data of the cases

Parameter		n (%)/ Median (IQR)
Age (years)		66,0 (57,0-76,0)
Gender	Male	161 (53,8)
	Female	138 (46,2)
Vital Parameter	Systolic BP (mmHg)	125,0 (105,0-144,0)
	Diastolic BP (mmHg)	70,0 (60,0-80,0)
	Pulse (beats/min)	95,0 (80,0-110,0)
	Fever (°C)	36,5 (36,4-36,6)
	Saturation (%)	95,0 (90,0-98,0)
	Respiration Rate (/min)	24,0 (20,0-28,0)
Outcome	Discharge	125 (41,8)
	Mortality	174 (58,2)
Length of stay (days)		6,0 (3,0-18,0)

It was examined whether there was a significant difference in age, length of hospital stay and vital parameters of the cases according to gender, and no significant difference was found in any parameter according to gender (Table 2).

Table 2 Relationship between demographic data, vital parameters and laboratory data according to the gender of the cases

Parameter Male n (%)/ Median (IQR)		Gender Female n (%)/ Median (IQR)		p
Age (years)		66,0 (57,0-75,0)	68,0 (57,0-79,0)	0.617*
Vital Parameter	Systolic BP(mmHg)	126,0 (110,0-140,0)	121,5 (100,0-145,0)	0.287*
	Diastolic BP (mmHg)	70,0 (62,0-80,0)	70,0 (60,0-80,0)	0.821*
	Pulse (beats/min)	97,0 (80,0-112,0)	92,5 (80,0-109,0)	0.328*
	Fever (°C)	36,5 (36,4-36,6)	36,5 (36,4-36,6)	0.103*
	Saturation (%)	95,0 (90,0-98,0)	95,0 (91,0-98,0)	0.246*
	Respiration Rate (/min)	24,0 (21,0-29,0)	24 (20,0-28,0)	0.467*
Outcome	Discharge	67 (53,6)	58 (46,4)	0.942**
	Mortality	94 (54,0)	80 (46,0)	
Length of stay (days)		6,0 (3,0-12,0)	6,0 (3,0-10,0)	0.630*
*: Mann Whitney U Test; **: Pearson χ2 Test;				

Age, length of hospital stay and vital values were analyzed according to the outcomes of the cases. In the data obtained, the median age value was significantly higher in cases with exitus. Considering the vital parameters; Systolic blood pressure, diastolic blood pressure, and saturation were significantly lower in exitus patients compared to patients who experienced saturation. There was no difference in heart rate, fever and respiratory rate according to the outcome. The duration of hospitalization was significantly higher in cases with exitus (Table 3).

Table 3 Comparison of demographic data, vital parameters and laboratory data of the cases according to their outcome

Parameter Exitus n (%)/ Median (IQR)		Outcome Discharge n (%)/ Median (IQR)		p
Age (years)		69,5 (79,0-59,0)	62,0 (55,0-71,0)	**<0.001***
Vital Parameter	Systolic BP(mmHg)	120,0 (100,0-135,0)	130,0 (116,0-150,0)	**<0.001***
	Diastolic BP (mmHg)	70,0 (60,0-80,0)	73,0 (5,0-80,0)	**0.031***
	Pulse (beats/min)	96,0 (79,0-112,0)	94,0 (80,0-107,0)	0.762*
	Fever (°C)	36,5 (36,4-36,6)	36,5 (36,4-36,6)	0.087*
	Saturation (%)	94,0 (89,0-98,0)	96,0 (92,0-99,0)	**0.004***
	Respiration Rate (/min)	24,0 (20,0-28,0)	24,0 (20,0-29,0)	0.962*
Gender	Male	94 (54,0)	67 (53,6)	0.942**
	Female	80 (46,0)	58 (46,4)	
Length of stay (days)		8,0 (3,0-13,0)	4,0 (2,0-8,0)	**0.001***
*: Mann Whitney U Test; **: Pearson χ2 Test;				

4. Discussion

Covid-19 has been a pandemic that has been effective since December 2019. This disease spreads very quickly.

In addition, this disease is a very aggressive viral infection. It usually manifests itself with symptoms such as fever, flu symptoms, muscle and joint pains. However, it also causes serious clinics such as cough, shortness of breath and pneumonia. (2,3) The majority of this picture is the ARDS picture that develops aggressively. Thus, the number of patients hospitalized in intensive care units has increased. Some studies have shown that 40-96% of patients admitted to the ICU have ARDS. (8,10,12) In our study, this rate was found to be similar due to the high number of elderly patients with high comorbidities.

Most of the ICU admissions have severe ARDS. ARDS; Despite a multidisciplinary and holistic approach to treatment and follow-up, it is a difficult disease to manage. Therefore, the vast majority of patients with ARDS result in death. In a study, ICU mortality was reported to be approximately 25.6%. (13) In another study conducted with Covid-19 patients, the death rate in ICU was reported as 41.6%. (14) In a meta-analysis conducted in Africa, this rate was found to be 31.5%. (15) In some other studies, the mortality rate in ICU differed between 22-62%. (9.16) In our study, it was found close to the upper limit of the data in the literature, since the cases selected were at the most intense and aggressive time of the pandemic process. The most important reason for the lower mortality rates in the literature is the small case population.

All data in this study were obtained from the ICU, which was managed by emergency medicine specialists from the first day. All follow-up, treatment and interventional procedures were planned by the emergency medicine clinic in this process. It is very important that the mortality rate is similar to the literature, despite a long ICU follow-up and inexperience in treatment.

As a result, no disruption was observed in the treatment of patients who were followed up and treated by the emergency medicine clinic during the Covid-19 pandemic. Mortality rates were found to have similar results with the literature.

5. Limitations

This study has some limitations. First of all, the data used is obtained from a single center and retrospectively. Secondly, the number of cases could be increased. Third, most of the data in the pandemic process is missing.

6. Conclusion

As the pandemic process has shown, more ICUs are needed. The biggest obstacle in solving this problem is the inadequacy of the ICU specialist. As demonstrated in this study, we predict that staff shortages can be reduced after emergency medicine specialists receive intensive care training.

7. Funding

None.

8. Dislosure

The authors report no conflicts of interest fort his work.

9. References

1. Johns Hopkins University & Medicine. COVID-19 Map Johns Hopkins University & Medicine. Available at: https://coronavirus.jhu.edu/map.html. Accessed 4/2/2020.

2. Zhou Z, Zhao N, Shu Y, *et al*. Effect of Gastrointestinal Symptoms in Patients With COVID-19. Gastroentero-logy, 2020,158(8):2294-2297

3. Perisetti A, Goyal H, Gajendran M, *et al*. Prevalence, Mechanisms, and Implications of Gastrointestinal Symptoms in COVID-19. Front Med, 2020,7:588711

4. O'Hearn M, Liu J, Cudhea F, *et al*. Coronavirus Disease 2019 Hospitalizations Attributable to Cardiometabolic Conditions in the United States: A Comparative Risk Assessment Analysis. J Am Heart Assoc, 2021,10(5):e019259

5. Caramelo F, Ferreira N, Oliveiros B. Estimation of risk factors for COVID-19 mortality-- preliminary results. medRxiv, 2020,02.24.20027268

6. Coperchini F, Chiovato L, Croce L, *et al*. The cytokine storm in COVID-19: An overview of the involvement of the chemokine/chemokine-receptor system. Cytokine Growth Factor Rev, 2020,53:25-32

7. Faqihi F, Alharthy A, Memish ZA, *et al*. Comment on Hu *et al*: The cytokine storm and COVID-19. J Med Virol, 2021,93(2):631-633

8. Huang C, Wang Y, Li X, et al.. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet. 2020;395(10223):497-506.doi: 10.1016/S0140-6736(20)30183-5

9. Wang D, Hu B, Hu C, et al.. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in Wuhan, China. JAMA. 2020. doi: 10.1001/jama.2020.1585

10. Bhatraju PK, Ghassemieh BJ, Nichols M, et al.. COVID-19 in critically ill patients in the Seattle region—case series. N Engl J Med. 2020;382(21):2012-2022. doi: 10.1056/NEJMoa2004500

11. T.C. Saglık Bakanlığı, Bilim Danışma Kurul Çalışma, Covid-19 (SARS-CoV-2 Enfeksiyonu) Pandemisi Çalışma Rehberi, 7 Aralık 2022, Ankara

12. Guan WJ, Ni ZY, Hu Y, et al.; China Medical Treatment Expert Group for Covid-19 . Clinical characteristics of coronavirus disease 2019 in China. N Engl J Med. 2020;382(18):1708-1720. doi: 10.1056/NEJMoa2002032

13. Grasselli G, Greco M, Zanella A et al. Risk Factors Associated With Mortality Among Patients With COVID-19 in Intensive Care Units in Lombardy, Italy. JAMA Intern Med. 2020 Oct 1;180(10):1345-1355. doi: 10.1001/jamainternmed.2020.3539.

14. Armstrong RA, Kane AD, Cook TM. Outcomes from intensive care in patients with COVID-19: a systematic review and metaanalysis of observational studies. Anaesthesia 2020; 75: 1340–9

15. Biccard BM, Gopalan PD, Miller M, et al. Patient care and clinical outcomes for patients with COVID-19 infection admitted to African high-care or intensive care units (ACCCOS): a multicentre, prospective, observational cohort study. Lancet 2021; 397: 1885–94

16. Yang X, Yu Y, Xu J, Shu H, Xia J, Liu H, *et al.* Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study. Lancet Respir Med 2020;8:475–81

Onur Zengin

1. INTRODUCTION

Coronavirus Disease 2019 (COVID-19) has spread to hundreds of countries worldwide, affecting millions of people. This infection may be asymptomatic or progress to acute respiratory failure, multiple organ failure, and septic shock (1,2). Revealing the differences between the signs and symptoms of patients who had mild COVID-19 disease and those who died due to severe infection may provide an opportunity to understand the pathogenesis of the disease. Therefore, early identification of risk factors leading to severe cases of COVID-19 is essential.

Accelerating the diagnosis and treatment of patients by evaluating them with biochemical tests in the early period is critical both in terms of early control of the disease, control of the spread of the pandemic, and the correct and efficient use of resources during the pandemic (3). The most common laboratory findings in diagnosis are lymphocytopenia (83.2%), thrombocytopenia (36.2%), and leukopenia (33.7%) (1). Many studies report an increase in C-reactive protein (CRP) and pro-inflammatory cytokine levels and a decrease in lymphocyte, total protein, and albumin (ALB) levels in COVID-19 patients (4,5). Another parameter used in evaluating COVID-19 patients is the procalcitonin (PCT) level. Unless a bacterial infection is added, the procalcitonin level is often within the normal range at the first diagnosis, but it was revealed to be elevated in patients admitted to the intensive care unit (6).

The length of hospital stay of COVID-19 patients is also crucial. Long-term hospitalizations come with higher costs and higher consumption of medical resources, and the duration of hospitalization reflects the patient's recovery time. The prolongation of the hospitalization is, to some extent, related to the severity of the disease. It is vital to determine which patients are at risk regarding ICU admission and mortality in COVID-19 infection. Risk factors vary from demographic factors such as age, gender, and ethnicity to nutritional and lifestyle habits, underlying diseases, and genetic factors (7).

The present study aimed to demonstrate the effects of certain biochemical tests, demographic data, and length of hospital stay on ICU admission and mortality in COVID-19 infection.

2. MATERIALS and METHODS

2.1 Study design and settings

This prospective study was performed at the Erzurum Faculty of Medicine. The requirement for informed consent was waived as the data used in the study were anonymous. Patients older than 18 years of age and with positive RT-PCR results were included in the study. Those with missing baseline data, pregnant women, those under 18 years of age, and pre-arrest cases were excluded. A demographic information form was established for each patient. Demographic data were recorded by a senior emergency medicine resident. Eighty-one patients who applied to the emergency department before August 2022 and were admitted to the intensive care unit afterward were included in the study. The decisions to hospitalize the patients in the intensive care unit were made according to the COVID-19 guidelines of the Turkish Ministry of Health. Patients were divided into two groups deceased and survivors. A comparison of parameters such as gender, age, comorbid diseases, blood parameters, intubation, and length of hospital stay was made between these two groups. A definitive outcome (discharged, continued treatment, or died) was obtained on all patients before the data analysis.

2.2 Demographic Information Form

The demographic information form included parameters such as participant's age, gender, comorbid diseases (Hypertension, Diabetes Mellitus, Heart Failure, Pulmonary Disease, Dyslipidemia, and Coronary Artery Disease), blood parameters (CRP, D-Dimer, Procalcitonin, Blood Urea Nitrogen, Creatinine, Aspartate Aminotransferase, Alanine Aminotransferase, ALB), whether intubated, length of hospital stay, and mortality within 28 days.

2.3 Statistical Analysis

SPSS 22 package program was used for statistical analysis of the data. Data were analyzed using descriptive and interpretive statistics. Before the interpretative analysis, Skewness-Kurtosis, Histograms, and Kolmogorov-Smirnov tests were used to test the assumption that the data required for parametric tests show normal distribution. Descriptive statistics were presented as mean and standard deviation values for normally distributed continuous variables and median and IQR values for non-normally distributed variables. Categorical variables were reported as frequencies and percentages. Before interpreting statistics, the assumptions necessary for the analysis were checked. Accordingly, categorical variables were analyzed with the Pearson chi-square test, and the type and strength of the relationship between the two variables were determined. Furthermore, continuous variables were evaluated according to the normal distribution of the data. If the data showed normal distribution, the independent sample t-test analyzed the mean differences within the group, and if not, the Mann-Whitney U Test performed the analysis. The level of significance in statistical analyzes was determined as 0.05.

3. RESULTS

Independent sample t-test or Mann-Whitney U test was used according to the normal distribution of data on continuous variables to analyze variables depending on mortality status. In the analysis of measurement and categorical variables, the chi-square test and Fisher's Exact Test were preferred if the necessary assumptions were not provided for the chi-square test. As a result of the analysis, the mean age of the deceased ($\bar{x}$=73.82) according to the mortality status was higher than the survivors ($\bar{x}$=68.07) and statistically significant (t(78)=-1.98, p=0.04). When the mortality status was examined according to the laboratory findings, Blood Urea Nitrogen (BUN) (U=491.50, z=-2.48, p=0.01) and Alanine Aminotransferase (ALT) (U=502.50, z=-1.97, p=0, 04) values were statistically significantly higher in the deceased group, and ALB (U=483.50, z=-2.56, p=0.01) values were statistically significantly lower in the deceased group. Besides, the death status was evaluated according to the length of stay in the hospital, and the findings revealed that the length of stay in the hospital was statistically significantly lower in the deceased group. On the other hand, no significant relationship was determined between gender, comorbidities, mechanical ventilation, and death status. Moreover, between groups, laboratory data such as CRP, PCT, D-Dimer, Creatinine, and AST did not differ significantly according to the death variable.

The data were also analyzed with the Pearson correlation test regarding the correlations between the length of hospital stay and continuous variables, and the findings are presented in Table 2. As a result of the analysis, no significant relationship was observed between the length of hospital stay and any continuous variable. On the other hand, a positive correlation with the significance level of 0.00 was determined between D-Dimer-CRP, Creatinine-CRP, BUN-CRP, Creatinine-PCT, BUN-PCT, BUN-D-Dimer, Creatinine-BUN, BUN-AST and AST-ALT. Among these correlations, especially the creatinine-BUN and AST-ALT correlation levels were quite strong. Furthermore, a negative correlation was determined between ALB-CRP and ALB-D-Dimer, and ALB-BUN at a significance level of 0.01. Accordingly, the values acted in different directions; as one increased, the other decreased, or when one decreased, the other increased.

4. DISCUSSION

Although we have much new information about COVID-19, we do not have enough regarding the relationship between laboratory findings in patients with mortality and the length of hospital stay. Therefore, our main aim in this study was to emphasize the relationship between laboratory findings and clinical outcomes of COVID-19 patients. The results we obtained were as follows: (1) Age, BUN, and ALT values were higher in the deceased group than in the surviving group, and albumin values were lower in the deceased group; (2) Also, the death status was evaluated according to the length of stay in the hospital, and the findings showed that the length of stay in the hospital was lower and statistically significant in the deceased group; (3) No significant relationship was observed between the length of hospital stay and any continuous variable. However, a negative correlation was

determined between ALB-CRP, ALB-D-Dimer, and ALB-BUN at a significance level of 0.01. Accordingly, the values acted in different directions; as one increased, the other decreased, or when one decreased, the other increased.

Biochemical tests play an active and vital role in every stage of the clinical management of COVID-19. For example, in various studies, ALT, AST, gamma-glutamyl transferase (γ-GT), lactate dehydrogenase (LDH), and alkaline phosphatase (ALP) levels, which are indicators of kidney, liver, and heart function, were significantly higher in deceased patients than in recovered patients. Also, ALB and total protein levels in patients who died were significantly lower than in patients who recovered (8). In another study performed on 61 patients with COVID-19, the rates of intensive care hospitalization were significantly higher in those with neutrophil-lymphocyte ratio (NLR) ≥3.13 and in the advanced age (≥ 50 years) group (9). Similarly, in our study, age, BUN, and ALT values were higher in the deceased group than in the survivors.

Various clinical and laboratory parameters were examined in another study, including 30 patients with COVID-19. These parameters have been associated with the length of hospital stay and the severity of the disease (10). However, our study revealed no significant relationship between a hospital stay and laboratory data.

D-Dimer, a fibrin degradation product, indicates fibrinolysis. High D-Dimer levels are thought to occur due to increased coagulation cascade activation secondary to the inflammatory response in COVID-19 patients (11). One of the earliest host responses to infections is the activation of various acute phase reactants such as CRP and albumin/prealbumin. Studies have demonstrated that CRP levels in severe COVID-19 patients are significantly higher than in non-severe COVID-19 patients. Based on these studies, it has also been stated that CRP is an independent risk factor for severe COVID-19. Many studies have reported that high D-Dimer and CRP levels in COVID-19 patients can help clinicians effectively distinguish between severe and non-severe cases of COVID-19 (3).

As a result, significant elevations of D-Dimer, BUN, and CRP markers have been associated with death in COVID-19. In our study, these markers were significantly higher in the patient group who died. It was also observed that there was a negative correlation between albumin and these markers.

5. CONCLUSION

In conclusion, COVID-19 infection may result in high mortality rates in patients with respiratory failure. Hence, we think close follow-up of laboratory findings indicating a poor prognosis may guide the diagnosis of patients with high mortality and the implementation of timely, effective treatment.

REFERENCES

1.Guan WJ, Ni ZY, Hu Y, Liang WH, Ou CQ, He JX, et al. Clinical characteristics of coronavirus disease 2019 in China. New England journal of medicine 2020; 382(18):1708-1720

2. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The lancet* 2020; *395*(10223): 497-506.

3. POLAT, T., DAĞLIOĞLU, G., GORUR, O., & İNAL, T. C. (2022). COVID-19 Hastalarının Tanı, Tedavi ve Takibinde Klinik Biyokimya Laboratuvarlarının Rolü. *Arşiv Kaynak Tarama Dergisi*, *31*(1), 1-9.

4. Wei X, Zeng W, Su J, Wan H, Yu X, Cao X, et al. Hypolipidemia is associated with the severity of COVID-19. *Journal of clinical lipidology* 2020; *14*(3): 297-304.

5. Bhaskar S, Sinha A, Banach M, Mittoo S, Weissert R, Kass JS, et al. Cytokine Storm in COVID-19—Immunopathological Mechanisms, Clinical Considerations, and Therapeutic Approaches: The REPROGRAM Consortium Position Paper. Front. Immunol 2020;11: 1648.

6. Wu C, Chen X, Cai Y, Xia J, Zhou X, Xu S, et al. Risk factors associated with acute respir-atory distress sy-

ndrome and death in patients with coronavirus disease 2019 pneumo-nia in Wuhan, China. JAMA Intern Med 2020;e200994.

7. Wolff D, Nee S, Hickey NS, Marschollek M. Risk factors for Covid-19 severity and

fatality: a structured literature review. Infection. 2021;49(1):15-28.

8.Wang F, Hou H, Wang T, Luo Y, Tang G, Wu S et al. Establishing a model for predicting the outcome of COVID-19 based

on combination of laboratory tests. Travel Med Infect Dis. 2020;36:101782.

9. Liu Y, Xiang P, Pu L, Xiong H, Li C, Zhang M, et al. Neutrophil-to-Lymphocyte Ratio Predicts Severe Illness Patients with 2019 Novel Coronavirus in the Early Stage. Medrxiv 2020 doi: 10.1101/2020.02.10.20021584.

10. Mina A, van Besien K, Platanias LC. Hematological manifestations of COVID-19. Leuk Lymphoma. 2020;61:2790-98.

11. Eljilany I, Elzouki AN. D-Dimer, Fibrinogen, and IL-6 in COVID-19 Patients with Suspected Venous Thromboembolism: A

Narrative Review. Vasc Health Risk Manag. 2020;16:455-62.

Table 1 –Demographic Features

Features	Total Patients (n = 80)
Gender	
Female, n(%)	35 (43,8)
Male n(%)	45 (56,3)
Age	70,16 (1,42)
Additional Disease	
DM, n(%),	20 (25)
HT, n(%)	37 (46,3)
PD, n(%)	18 (22,5)
CHF, n(%)	6 (7,5)
CAD, n(%)	23 (28,8)
DL, n(%)	2 (2,5)
Labaratory Findings*	
CRP[2], Mean Rank (IQR)	90 (19 - 120)
PCT[2], Mean Rank (IQR)	1 (0,71 – 2,12)
D-Dimer[2], Mean Rank (IQR)	1178 (518,50 – 4453,20)
BUN[2], Mean Rank (IQR)	27 (20 - 45)
Cr[2], Mean Rank (IQR)	1 (0,8 - 1,4)
ALT[2], Mean Rank (IQR)	34 (18,25 – 61,50)
AST[2], Mean Rank (IQR)	46 (29 – 85,20)
ALB[2], Mean Rank (IQR)	39 (35,25 - 41)
Mechanical ventilation (intubated)	
Yes, n(%)	32 (40)
No, n(%)	48 (60)

Hospital Stay, Median (IQR)	30,50 (18,50 – 44,50)
28-day mortality	
Yes, n(%)	29 (36,3)
No, n(%)	51 (63,8)

Note: DM, Diabetes mellitus; HT, hypertension; PD, pulmoner disease; CHF, Congestive Heart Failure ; CAD, Coroner Arter Disease; DL, Dyslipidemia; CRP,C-reactive protein; PCT, procalcitoin; BUN, Blood Urea Nitrogen; Cr, Creatin ALT, alanine amino transferase; AST, aspartate amino transferase; ALB, Albumin;

Table 2 – Analysis of data depending on the death variable

Features	Death (n=80)		
	Yes (n=29)	No (n=51)	p
Gender			
Female, n(%)	12 (41,4)	23 (45,1)	0,74[3]
Male, n(%)	17 (58,6)	28 (54,9)	
Age(ss)	73,82 (13,48)	68,07 (11,87)	**0,04***[1]
Additional Disease			
DM, n(%)	7 (24,1)	13 (25,5)	0,89[3]
HT, n(%)	13 (44,8)	24 (47,1)	0,84[3]
PD, n(%)	7 (24,1)	11 (21,6)	0,79[3]
CHF, n(%)	3 (10,3)	3 (5,9)	0,66[4]
CAD, n(%)	9 (31)	14 (27,5)	0,73[3]
DL, n(%)	0 (0)	2 (3,9)	0,53[4]
Labaratory Findings*			
CRP, Mean Rank	42,02	39,64	0,66[2]
PCT, Mean Rank	39,90	40,84	0,86[2]
D-Dimer, Mean Rank	43,24	38,94	0,42[2]
BUN, Mean Rank	49,05	35,65	**0,01***[2]
Cr, Mean Rank	41,88	39,72	0,68
ALT, Mean Rank	46,95	36,83	**0,04***[2]
AST, Mean Rank	43,98	38,52	0,32
ALB, Mean Rank	31,67	45,52	**0,01***[2]
Mechanical ventilation (intubated)			
Yes, n(%)	15 (51,7)	17 (33,3)	0,10[3]
No, n(%)	14 (43,8)	34 (66,7)	
Hospital Stay, Mean Rank	33,26	44,62	**0,03***[2]

[1] independent sample t-test, [2] Mann Whitney U Testi, [3] Chi-Square Test,[4]Fisher's Exact Test, * p<0,05

Note: Note: DM, Diabetes mellitus; HT, hypertension; PD, pulmoner disease; CHF, Congestive Heart Failure ; CAD, Coroner Arter Disease; DL, Dyslipidemia; CRP,C-reactive protein; PCT, procalcitoin; BUN, Blood Urea Nitrogen; Cr, Creatin ; ALT, alanine amino transferase; AST, aspartate amino transferase; ALB, Albumin;

Table 3- Relationship between length of hospital stay and continuous variables

		1	2	3	4	5	6	7	8	9	10
1. Hospital Stay		-									
2. AGE		-,10	-								
3. CRP		,05	,03	-							
4. PCT		,00	-,13	,15	-						
5. D-Dimer		-,01	,19	,34**	,00	-					
6. BUN		-,02	-,10	,44*	,38**	,26*	-				
7.	Cr	-,09	-,16	,35**	,53**	,10	,77**	-			
8.	ALT	-,12	,03	,00	-,04	-,01	,21	,08	-		
9. AST		,02	,04	-,02	,00	,03	,29**	,13	,91**	-	
10. ALB		-,14	-,13	-,48**	-,02	-35**	-,35**	-,14	-,06	-,11	-

** 0,01 significant at the level; * 0,05 significant at the level

Note: CRP,C-reactive protein; PCT, procalcitoin; BUN, Blood Urea Nitrogen; Cr, Creatin ; ALT, alanine amino transferase; AST, aspartate amino transferase; ALB, Albumin

NOTES:

Authors' contribution

Şenol ARSLAN**: Conceptualization, design**analysis, methodology, software, writing-reviewing andediting.

All authors read and approved the final version of the manuscript

Declarations of interest

The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

The titles of tables

Table I.

Table II.

Table III.

Challenging Surgical Treatment of Brucellosis Induced Aortic Valve Endocarditis Accompanied by Aortopulmonary Fistula and Aortic Root Abscess

Semih Murat Yücel[1] , Fatih Çalışkan[2] , **Latif Duran[2]**

[1]Ondokuz Mayıs Üniversitesi Tıp Fakültesi Kalp Damar Cerrahisi Anabilim Dalı

[2]Ondokuz Mayıs Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Brucellosis is an endemic zoonotic disease caused by bacteria of the genus Brucella. Brucella is a gram-negative, small, coccobacilli, non-motile, non-capsulated, and obligate aerobic bacteria. Brucella dies by heating (10 minutes at 60°C), exposure to disinfectants, and pasteurization. It can survive for 1 to 8 months in soil, milk, ice cream, cheese, tap water, and aqueous animal waste. The other names of brucellosis are Malta Fever, Undulant Fever, Mediterranean Fever, Rock Fever, and Gastric Fever. Brucellosis is the most common zoonotic infection prevalent all around the world (500,000/year new cases [WHO]). It is endemic in the Mediterranean, Asian, and African developing countries contrary to developed countries(1). It is common in people whose occupation is livestock or who consume uncooked food from these animals.

The main hosts of Brucella are cattle, sheep, goats, and canis (Brucella melitensis: Sheep, goats [70% of human cases], Brucella abortus: Cattle [25% of human cases], Brucella suis: Pig [5% of human cases], Brucella canis: canis [Rare]).

The modes of transmission of brucellosis are animal to human (most common), human to human, transmission from a contaminated environment, occupational transmission (livestock, veterinarian, butcher, laboratory technician), and transmission from food (raw/poorly cooked meat and dairy products). It is very rarely transmitted from person to person (sexual contact or blood-tissue transfusion). There is currently no licensed vaccine for brucellosis in humans. Available animal vaccines may cause disease and are considered unsuitable for use in humans. The clinical manifestation of brucellosis can be subclinical, acute/subacute, or chronic. The most common symptoms are fever, sweating, weakness, joint pain, headache, backache, anorexia, weight loss, chronic fatigue, irritability, and depression. Diseases to be considered in the differential diagnosis of brucellosis are tuberculosis, toxoplasmosis, rheumatism, hepatitis, typhoid fever, and neurological-psychiatric diseases. The patient's history, laboratory tests (standard tube agglutination test, Rose Bengal test, PCR/ELISA, blood or other body fluid cultures), and imaging methods (X-ray, computerized tomography, magnetic resonance imaging, transthoracic/transesophageal echocardiography) are used to diagnose brucellosis. Imaging methods reveal pathologies such as endocarditis, spondylitis, abscess, and arthritis due to brucellosis.

Treatment of brucellosis can be done on an outpatient or inpatient basis. There are two major antibiotic regimens. 1) Doxycycline 100 mg orally twice daily (6 weeks) + Streptomycin 1 gram intramuscularly once daily (3 weeks). It is more convenient but it has relapse risk. 2) Doxycycline 100 mg orally twice daily (6 weeks) + Rifampicin 600-900mg orally once Daily (6 weeks). It is stronger to the prevention of relapse. Patients with significant focal organ involvement such as meningitis, endocarditis, spondylitis, pregnancy, and abscess should be treated as an inpatient. Similar treatments should be administered for longer periods of time. (1,5-6 months). Patients with the focal disease have a less favorable prognosis. The incidence of mortality is less than 1% in non-cardiac brucellosis.

Cardiac involvement is rare. Endocarditis is estimated to occur in 11.5% of cases of focal organ brucellosis. The prevalence of brucella endocarditis is 0.8-2%. Pancarditis associated with brucellosis is extremely rare. Brucella can affect both native and prosthetic valves. The most fatal complication (80%) of brucella is endocarditis. Aortic valve involvement is the most common. The mitral valve is the second most frequently affected valve(2).

The native aortic valve is preferentially involved but if the valves are damaged, then the predilection is for the mitral valve. If the patient with brucella endocarditis does not have the following findings, the initial treatment is antibiotic therapy alone: Heart failure, valvular destruction, abscess, pseudoaneurysm, fistula, and the prosthetic valve. The treatment regimen is as follows: Combination of three or four antibiotics (6 weeks- 6 months) with aminoglycoside ± trimethoprim-sulphamethoxazole.

Aortic valve involvement can lead to aortic root abscess and rarely aortopulmonary fistula(3). Since it can lead to sepsis and decompensated heart failure, the definitive treatment for these complications is emergency surgical treatment, and long-term combined antibiotic therapy. We present our challenging emergency surgical treatment of the patient with aortic valve endocarditis, aortic root abscess, aorticopulmonary fistula, and severe decompensated heart failure due to brucellosis.

Case: A 52-year-old male patient presents to the emergency department with complaints of persistent fever, joint pain, weakness, and shortness of breath for five weeks. He was a sheep and cattle breeder. This patient was diagnosed with COVID-19 two months ago. The patient also had chronic renal failure (not on dialysis). He had a high fever (38.4), tachycardia, tachypnea, systolodiastolic murmur, and bilateral rales on physical examination. Echocardiographic imaging showed severe aortic regurgitation, 14x22 mm vegetation on the aortic valve, aortic root abscess, and an aortopulmonary fistula. Brucella melitensis grew in his blood culture. We decided to perform emergency surgical treatment and triple antibiotic therapy (Doxycycline + Rifampicin + Gentamicin). Bentall procedure was performed after the excision of vegetative non-coapted aortic valve-aortic root abscess and primary repair of the main pulmonary artery. (Bentall procedure: Composite graft replacement of the aortic valve, aortic root, and ascending aorta, with re-implantation of the coronary arteries into the graft). The patient was discharged asymptomatically after 6 weeks of antibiotic treatment. The patient was given a combined treatment of doxycycline + rifampicin for 3 months.

Conclusions: Brucella endocarditis with aortopulmonary fistula and aortic root abscess has a very high mortality if not treated surgically immediately. In the presence of high clinical suspicion, positive blood culture, and echocardiographic findings of endocarditis, combined antibiotic therapy should be started without delay, and emergency surgical treatment should be performed in those patients. The main goal of surgical treatment is the resection of all infected tissues, repair of mechanical complications such as fistulization, and aortic valve-aortic root replacement. Prolonged antibiotic therapy is also an essential part of treatment(4).

References

1) Thakur SD, Kumar R, Thapliyal DC: Human brucellosis: review of an under-diagnosed animal transmitted disease. J Commun Dis 2002; 34: 287 – 301.

2) Koruk ST, Erdem H, Koruk I, Erbay A, Tezer-Tekce Y, Erbay AR, et al. Management of Brucella endocarditis: results of the Gulhane study. Int J Antimicrob Agents. 2012;40(2):145-50.

3) Feridoun Sabzi, Reza Faraji. Aorto-pulmonary fistula accompanied by root abscess and destruction of native aortic valve caused by brucellosis. Adv Biomed Res. 2015; 4: 146. 2015 Jul 27. doi: 10.4103/2277-9175.161561.

4) I Biyik, O Oto, O Ergene. Brucella pancarditis with dissecting aortic root abscess, left ventricular pseudoaneurysm and ventricular septal defect. The Journal of International Medical Research 2007; 35: 422 – 426.

A Bullet in the Cervical Canal Caused by a Gunshot Injury: A Case Report

Ali Sarıdaş, **Kübra Demir Çim**, Murat Duyan

Abstract

Introduction: The head and neck region contains many vital anatomical structures. Therefore, life-threatening clinical conditions in gunshot injuries are more common in the head and neck than in other anatomical regions. In this article, a case of head and neck injury in which the bullet was placed behind the cervical vertebral canal after the bullet entered the body is presented.

Case Report: A 21-year-old female patient comes to the emergency department with a complaint of gunshot wound to the neck area. The day before, in another hospital, the bullet remained in the posterior cervical area, but he refused treatment. One day later, he applied to the emergency department with the complaint of numbness in his arms and legs. The general condition of the patient is good, he is conscious. All four extremities are spontaneously mobile, there is no motor deficit. Right marginal mandibular nerve deficit was observed on facial nerve examination. In Computed Tomography imaging; In the right mandibular and submandibular area, diffuse edematous thickness increase in soft tissues and diffuse emphysema values were present. There is a fragmented fracture in the bone structure. At the level of the right mandibular corpus, approximately 24 hours ago, lead entry was observed in the 2 cm inferiorus of the right oral commissure. No additional pathology was detected in other maxillofacial osseous structures. On the right, the SCM muscle is asymmetrically thick compared to the left. Metallic foreign bodies are observed at the skin level in the right paraspinal soft tissue and in the right supraclavicular area at the C7 vertebra level. A displaced fracture was observed in the C7 right transverse process. There was minimal irregularity in the contours of the vertebral artery at this level. Lead removal operation was planned for the patient and the patient was admitted to the neurosurgery service.

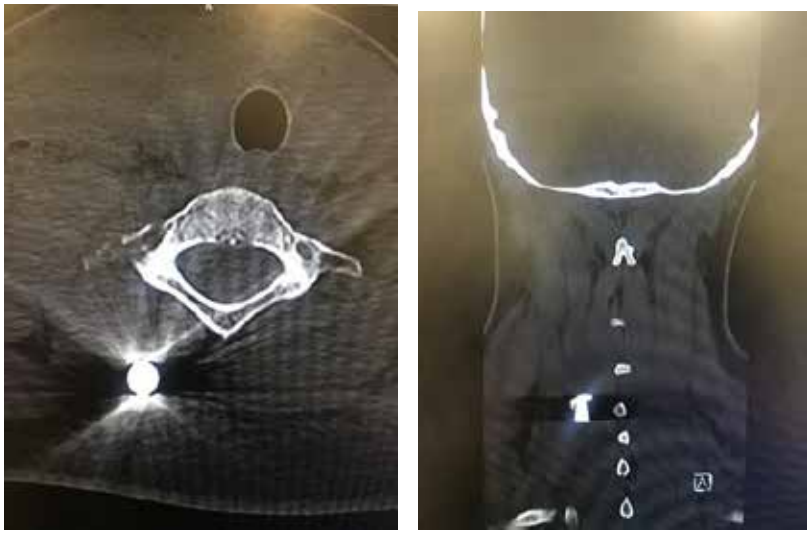


Figure 2: Tomographic image

Conclusion: Patients who have had spinal cord trauma due to gunshot injuries should be considered as standard trauma patients. First, evaluation, airway management, bleeding control, shock management, visceral injuries and spinal cord immobilization should be treated first. Neck trauma can cause many clinical conditions. As a result; Presented as cervical canal is a rare condition after gunshot wound injury

Missing Rates of Patients with Clostridial Myonecrosis-Necrotizing Soft Tissue Infection in the Emergency Department

Güneş YILDIRIM[1] , Ömer Faruk KARAKOYUN[2] , Birdal YILDIRIM[3]

[1]Muğla Sıtkı Koçman Üniversitesi Tıp Fakultesi
[2]Muğla Eğitim Araştırma Hastanesi Acil Servis
[3]Muğla Sıtkı Koçman Üniversitesi Tıp Fakultesi Acil Tıp Anabilim Dalı

Introduction

Necrotizing soft tissue infections may progress as fasciitis, cellulitis, or myositis, depending on the level of the soft tissue, and are characterized by diffuse necrosis. Fournier's gangrene (FG) often involves genital, perineal or perianal regions; It is a progressive necrotizing fasciitis that can spread to the abdomen and lower extremities. Since the disease progresses with widespread tissue destruction, delay in diagnosis and treatment may lead to high mortality (1-3). The infection process is usually caused by polymicrobial aerobic and anaerobic synergistic bacteria of the fascia. Gram-positive bacteria, such as Group A Streptococci and Staphylococcus aureus, and gram-negative bacteria, such as E. Coli and Pseudomonas aeruginosa, are the most commonly grown organisms in wound cultures of patients with Fournier's gangrene. These microorganisms can be transmitted from several different sources, including the urinary system, colorectal system, and skin (4).

Systemic diseases accompanying primary microorganism infection in FG are frequently encountered. Chief among these are diabetes mellitus, which is found in 20-70%, and chronic alcoholism, with a rate of 25-50%. In addition, obesity, cancer, living in poor hygiene conditions, low socioeconomic status, IV drug use, tooth extraction, cortisone therapy, chemotherapy, radiotherapy, malnutrition, polyarteritis nodosa, hypersensitive vasculitis, peripheral vascular diseases, paraplegia and idiopathic causes are also listed as predisposing factors for FG. (7-8). While the disease can be detected in all age groups in societies with low socioeconomic status, there is a significant increase in its incidence after the age of 50. FG is 10 times more common in men. Although the mortality rate is presented in a wide range in the literature, it is between 20-40% on average (1-3).

The diagnosis of the patients is made by clinical examination findings. In the physical examination; FG should be considered in patients with tenderness, induration, erythema, cyanosis, prepubic and/or scrotal swelling and gangrene, skin necrosis, and subcutaneous tissue crepitation. Leukocytosis over 20,000/mm3 is frequently encountered in laboratory examinations. Anemia, hyperebulinemia, and elevation in creatinine may be detected. The presence of subcutaneous gas can be seen on direct pelvic X-ray. Ultrasonography can be useful in distinguishing intrascrotal abnormality. Computed tomography (CT) provides early diagnosis, especially in suspicious cases, and determines the anatomical extent of the disease(9).

FG is a urological emergency, necrotizing infection with high mortality rates. Early diagnosis and effective treatment are lifesaving. For this reason, it is a disease that should be paid attention to and should not be overlooked in applications to the emergency department. With our research, we wanted to draw attention to FG disease, which has a very high mortality and morbidity for emergency services, by determining the rate of admission to the emergency department and the frequency of missed disease in FG patients.

Materials and Method

We planned our study as a single-center and retrospective study to evaluate FG patients in the emergency department. For our research, permission was obtained from the Ethics Committee of Muğla Sıtkı Koçman University with the number 09.12.2021-210041/25. For our research, all patients diagnosed with A48.0, M72.5 ICD codes

over the hospital data processing system were listed. Then, the emergency service applications of these patients were evaluated based on the hospitalization files. The form we created for our research was filled with data on the hospital data processing system and data obtained from the hospital archive.

Our research form consisted of three parts. In the first part, demographic information of the patient, in the second part, vital signs of hospital admission, physical examination findings, laboratory findings and imaging results were included. In the last part, there were questions about the outcome of the patient's hospital admission and mortality.

SPSS program was used for the analysis of the research data. The distribution of the data was analyzed using the Shapiro-Wilk's test. Student's t test was used for normally distributed continuous variables, and Chi-square test was used for categorical variables. The Man Whiney U test was used for the variables that did not fit the normal distribution. Quantitative variables were presented as mean±SD (Standard Deviation) and median (Minimum/Maximum). Categorical variables were shown as n (%). Those with a p value less than 0.05 were considered significant.

Results

The data of 59 patients, 39 (66.1%) male and 20 (33.9%) female, were obtained for the study. The youngest of the patients was 0, the oldest was 82 years old, and the mean age was calculated as 52.2±19.8 years.

Twenty four (40.7%) of the patients were admitted to the hospital from the emergency department and 35 (59.3%) from the polyclinics. When the files of the patients included in the study were examined, it was determined that 6 patients were referred from another center and were the first applications of other patients. The relationship between hospital admissions and application forms is shown in Table 1.

Table 1. The relationship between hospital admission places and forms of admission

Policlinic		**The patient's place of application**	
		Emergency	
Hospital application process	First application	35	18
	Enthusiasm	0	6

The complaints of the patients were mostly from the inguinal region, 23 (39%), followed by 14 (23.4%) from the lower extremities and 8 (13.6%) from the perianal region. The vital parameters of the patients at the time of admission could not be accessed due to insufficient files. The physical examination findings of the lesions of the patients are summarized in Table 2.

Table 2: Physical examination findings of the lesion

	None	Yes
Pain	1 (1,7%)	58 (98,3%)
Erythema	3 (5,1%)	56 (94,9%)
Edema	10 (16,9%)	49 (93,1%)
Necrosis	40 (67,8%)	19 (32,2%)
Crepitation	58 (98,3%)	1 (1,7%)
Cellulite	58 (98,3%)	1 (1,7%)

The minimum and maximum values, standard deviation, and mean values of the laboratory results of the patients are given in Table 3. The mean CRP value of the patients was calculated as 174.3.

Table 3. Laboratory parameters								
	Hg	WBC	Üre	Kre	AST	ALT	INR	CRP
Mean	12,0	10,9	42,3	0,98	23,5	18,9	1,2	174,3
Std. Deflection	3,6	4,9	32,0	0,93	17,01	13,5	0,6	158,2
Minimum	7,00	4,40	7,2	,32	7	2	0,8	0,6
Maximum	29,6	22,8	140	6,7	110	85	3,7	584

It was determined that the general surgery branch followed the most patients (35; 59.3%). Forty-four patients were hospitalized and their treatment was planned. The hospital stay of the hospitalized patients was found to be at least 1 day and at most 39 days, and it was calculated as 9.4±9.2 days. Five (8.5%) of the patients identified in our study died in the hospital during their treatment. The cross table between in-hospital mortality and hospital admission sites of patients is given in Table 4.

Table 4. The relationship between hospital admission sites and in-hospital mortality			
Policlinic		**The patient's place of application**	
		Emergency	
In-hospital mortality	Survived	35	19
	Died	0	5

Discussion

Due to the high number of patient applications in our country, the approach to the diagnosis, treatment and referral of cutaneous and subcutaneous emergencies in the emergency departments of training and research hospitals is important.

Necrotizing soft tissue infections (NYDE) are rare bacterial infections with high mortality, characterized by signs of necrosis progressing to the skin, subcutaneous tissue and other deeper layers of the skin. Risk factors for NYDE; advanced age, diabetes mellitus, chronic alcohol use, chronic kidney failure, heart disease, peripheral vascular diseases, cancer, HIV and NSAID use (6,7). In our study, our cases consisted of a patient group that was predominantly male, had diabetes mellitus, and had a history of chronic alcohol use. This was in line with the literature, as in these two studies.

Most of our cases were hospitalized from general surgery, and two-thirds of them were hospitalized from outpatient clinics. One-fourth of the emergency department admissions died during the follow-up period, and no mortality occurred in patients hospitalized in outpatient clinics. It can be interpreted that the application may have been made in the early period of the infection and they did not feel like an emergency patient yet.

In our study, we aimed to determine the rate of hospitalization after admission to the outpatient clinic of patients who were not hospitalized after applying to the emergency department. However, all cases who applied to the emergency department were hospitalized in our hospital and their treatments were completed.

Since the body region where the complaints begin in the majority of cases is the peri-anal part, patients and physicians avoid appropriate physical examination due to socio-cultural reasons. This causes an increase in mortality. In our study, all cases who applied to the emergency department were hospitalized because there was no outpatient hospitalization after the emergency service admission. Due to the high socio-cultural level of the research area, it can be interpreted that they allow the peri-anal regions of the patients to be examined easily, and they do not cause delay in diagnosis and mortality.

Conclusion

Skin and soft tissue infections are among the most common infections in the emergency department, and physicians should be knowledgeable about differential diagnosis and treatment approaches.

Comorbid diseases, living environment, trauma history, drugs used and previous similar infection history should be questioned. In the presence of necrosis, broad-spectrum antibiotics are started and surgical consultation for debridement should be requested.

REFERANCES

1) Yılmazlar T. Fournier gangreni: Sinsi, öldürücü, ancak tedavi edilebilir hastalık. Kolon Rektum Hast Derg 2012; 22: 45-49.

2) Smith GL, Bunker CB, Dinneen MD. Fournier›s gangrene. Br J Urol 1998; 81: 347-355.

3) Thwaini A, Khan A, Malik A, et al. Fournier›s gangrene and its emergency management. Postgrad Med J 2006; 82: 516-519. https://europepmc.org/article/NBK/nbk549821

4) Sorensen MD, Krieger JN, Rivara FP, et al. Fournier's gangrene: Population based epidemiology and outcomes. J Urol 2009; 181: 2120–2126.

5) Morpurgo E, Galandiuk S. Fournier›s gangrene. Surg Clin North Am 2002; 82: 1213-1224.

6) Mulla zD, Gibbs SG, Aronoff DM. Correlates of length of stay, cost of care, and mortality among patients hospitalized for necrotizing fasciitis. Epidemiol Infect. 2007;135(5):868-76.

7) Cainzos M, Gonzalez-Rodriguez FJ. Necrotizing soft tissue infections. Curr opin Crit Care. 2007;13(4):433-9.

Bilateral Fracture Dislocation of the Shoulder After Epileptic Seizure (TRIPLE E SYNDROME)

Talat Cem, Hakan Oğuztürk

INTRODUCTION

The incidence of bilateral glenohumeral joint dislocation is rare. This dislocation is usually seen after sports injuries, epileptic seizures, electrical injury, and electroconvulsive therapy.

Bilateral fracture-dislocation is even rarer and there are very few cases in the literature. In this case, bilateral shoulder fracture dislocation secondary to an epileptic seizure, which is a component of triple E syndrome, is presented.

Keywords: Bilateral Humeral Fracture Dislocation, Triple E Syndrome, Epileptic Seizure, Ischemic Stroke

CASE STUDY

An 82-year-old male patient with known coronary artery disease and history of cerebral aneurysm surgery; In morning times, the patient was brought to the emergency department by his relative through 112 due to bleeding from the mouth and blurred consciousness .

On physical examination, the patient's consciousness was confused .The patient was understanding verbal warnings and follow simple commands. The patient's pupils were isochoric(isometric), direct and indirect light reflexes were positive, eye movements were normal in all directions, and there was left face asymmetry. There was a limitation in movement of the right and left shoulders due to pain, and the bilateral lower extremities were spontaneously mobile. While intravenous access is provided from the lower extremity to the patient with bilateral upper extremity injuries, the venous blood gas taken from there is pH:7.03, pCO2:60 mmHg, HCO3:15.7 mmol/L lactate:10 mmol/L.

In the emergency department follow-up, the patient had a generalized tonic-clonic seizure lasting a few minutes and no acute bleeding was observed in the brain tomography of the patient, in diffusion magnetic resonance (Diffusion MR) image there was diffusion restriction in the right cerebellar medial hemisphere, consistent with an acute infarct with a diameter of approximately 6 mm. (Figure-1) Neurology consultation was taken in terms of ischemic stroke and epileptic seizure related to this condition. Thrombolytic or thrombectomy was not considered for the patient after that antiepileptic and anticoagulant treatment was started, but due to pain, tenderness, and limitation of movement in the right and left shoulders, an X-ray was taken and bilateral proximal humerus fracture (large reverse vertex-Sachs lesion-fracture dislocation) was observed in the shoulder. (Figure-2-3. the patient was evaluated by the orthopedic surgeon due to his current clinical condition but emergency surgical intervention was not considered for the patient. a simple shoulder arm sling was applied to the patient who was planned to be operated under elective conditions. the patient was admitted to the neurology intensive care unit with the diagnosis of ischemic stroke.

DISCUSSION

In 2001, Bradstone defined triple E syndrome consisting of epilepsy, electric shock, and external trauma for the etiology of the lesion mechanism in bilateral shoulder fracture-dislocations. In our case, there was Triple E syndrome secondary to an epileptic seizure. As a result of a detailed examination of the patient's first epileptic seizure, it was found that the underlying cause was an ischemic stroke. It should be kept in mind that patients presenting with epileptic seizures may also have injuries secondary to trauma. Therefore, in addition to the neuro-

logical examination to be performed in patients presenting with seizures, detailed trauma examination gains importance in order not to ignore multiple extremity trauma.

REFERENCES

1. Dionopoulos HT, Giannoudis PV, Smith RM, et al (1999) Bilateral anterior shoulder fracture dislocation. A case report and review of the literature. Int Orthop 23:128–130

2. Griggs SM, Holloway GB, Williams GR Jr, Ianotti JP (1999) Treatment of locked anterior and posterior dislocations of the shoulder. In: Ianotti JP, Williams GR (eds) Disorders of the shoulder, 1st edn. Lippincott Williams & Wilkins, pp 335–359

Figure 1: Diffusion MRI: Acute infarction of the right cerebellar hemisphere on the medial side is approximately 6 mm in diameter

Figure 2: Right Shoulder

Figure 3: Left Shoulder

Evaluation of patients with Acute Arterial Occlusion in Emergency Clinic

Kemal Gökçek

Introduction: The most commonly used imaging modalities in lower extremity diseases are Doppler ultrasonography (USG), computed tomography (CT) angiography, magnetic resonance (MR) angiography and catheter angiography (1). Among these methods, Doppler USG has significant advantages compared to other methods: It is not an invasive examination, does not require teamwork, and does not contain risks related to radiation and contrast agents. In addition, it is a cheap, easily reproducible method that patients can tolerate easily, and hemodynamic changes of the disease can be evaluated. It is actively used in the diagnosis of diseases such as deep vein thrombosis, peripheral artery disease, and cellulitis (1). In our study, we aimed to retrospectively evaluate the patients who came to the emergency department with leg pain, pallor, paresthesia and underwent Doppler USG.

Material and Method: Patients who applied to Muğla Sıtkı Koçman University Training and Research Hospital Emergency Clinic between 2018-2022 and had Doppler USG due to leg pain, pallor and paresthesia were included in the study retrospectively.

Data were analyzed using the Statistical Package for Social Sciences 20.0 for Windows (SPSS Inc., Chicago, IL). The normal distribution of quantitative data was checked using the Kolmogorov-Smirnov test. Parametric tests (posthoc Tukey test) were applied to normally distributed data, and non-parametric tests (Mann–Whitney U test) were applied to non-normally distributed data. Continuous data are presented as mean ± standard deviation or median (minimum-maximum) as appropriate. All differences associated with a chance probability of ≤0.05 were considered statistically significant.

Results: Doppler USG was performed on 156 patients who applied to the emergency department with the complaint of leg pain between 2018 and 2022, and 84 patients were excluded because their USG was normal,16 patients' data could not be accessed, and 8 patients were excluded from the study because USG was requested secondary to trauma 48 of these patients were evaluated retrospectively. Of these patients, 15 (31.3%) were female and 33 (68.8%) were male. The mean age was 73.25±15.05 years. No additional disease (AF, DM, heart failure, CRF, LVH, HT) was found in 5 (10.4%) patients. Additional disease was present in 43 (89.6%) patients. Hypertension and diabetes mellitus were the most common comorbid disease (14 patient,29.2%). All patients were hospitalized. Amputation was performed in 9 (18.8 %) patients. As treatment, low molecular weight heparin was used in 26(54.2%) patients and warfarin was used in 22(45.8%) patients, surgery in 36(75.2%) patients, and antibiotherapy in 14 (29.1%) patients. It was observed that 4 of the patients (8.3%) died during their follow-up in the hospital. When we examine it in terms of the affected leg; Left lower extremity was involved in 23 (47.9%) cases, and right lower extremity in 21 (43.8%) cases, and bilateral lower extremity was involved in 4 (8.3%) cases. When we examine the patients in terms of the affected vessels; Fomaral artery of 9(18.8%) patients, popliteal artery of 16(33.3%) patients, femoropopliteal artery of 11(22.9) patients, iliac artery of 2(4.2%) patients and popliteacrural artery of 10(20.8%) patients were involved.

When we divide the patients into two groups as who amputated and who non-amputee during their hospital follow-up; there was no statistically significant difference between gender (p: 0.552), age (p:0.55.2), presence of additional disease (p: 0.9.27), treatment (p: 0.927), involved leg (p: 0.10), involved vessel (p: 0.263) and death (p:0.741). We observed that amputation was more common in patients with DM as an additional disease.

Discussion: Acute limb ischemia is associated with a sudden decrease in arterial perfusion in the limb from a thrombotic or embolic cause. Symptoms and signs of acute ischemia of the extremity vary with the duration of

ischemia and the location and nature of arterial obstruction. Acute arterial embolism and acute arterial thrombosis are the most common causes. Lower extremity arterial disease (LEAD) is a disease of the iliac artery and its distal arteries. Because LEAD accounts for the majority of clinical presentations, it is commonly referred to as peripheral artery disease. LEAD may present with different clinical spectrums as asymptomatic, intermittent claudication, chronic limb-threatening ischemia or acute limb ischemia. Although arterial thromboembolism can be seen at any age, it is more common in the age of 50-70 years. In the study of Korkmaz O. et al, similar to us; mean age of the cases was 78.53±5.85 years , 31 (68.9%) of the patients were male and 14 (31.1%) of them were female (2). One of the leading causes of acute leg ischemia is peripheral embolism of cardiac origin. The underlying pathology in these patients is AF. (3). In our study, 18.8% of the patients had AF. Other causes include valvular diseases, including post-valve replacement, left ventricular wall thrombosis following myocardial infarction, cardiac/aortic tumor, and paradoxical embolism.

Acute arterialembolism most commonly affects the lower extremities (85%) (4). The order of localization frequency of emboli in the extremity arteries is ; femoral artery 34%, popliteal artery 14%, common iliac artery 13.5%, abdominal aorta 9.1%, brachial artery 9.1%, subclavian-axillary artery 4.5% and external iliac artery 3% (5). In our study group, thrombosis was found most frequently in the femoral artery. Acute arterial occlusion can lead to limb loss with a frequency of 15-50% in the postoperative period and this rate was 18.8% in our study(6).

As a result, the success of treatment in acute arterial occlusion depends on prompt diagnosis, early and effective treatment and Doppler USG can be used in the differential diagnosis of acute arterial embolism in patients with leg pain.

References

1. İmamoğlu H, Erdoğan N, Doğan S, Tunçay A. A Novel Approach For Evaluation of the Lower Extremity Arterial Disease in Emergency Setting. Bozok Med J 2018;8(3):1-5.

2. Korkmaz Ö, Göksel S, Yetkin U, Dönmez K ,Beton O, Berkan Ö. Investigation of Elder Patients (70 and older) Treated with Femoral Embolectomy for Acute Arterial Obstruction. Medical Journal of Aegean Clinics 2016;54: 19-28

3. Ahat E. Akut İskemik Bacakta Tedavi. Ateroskleroz; Koroner, Serebral, Periferik Arter Tutulumu Sempozyum Dizisi 2006; 52: 123–134.

4. Kaptan Özen D ve ark. Alt ekstremite periferik arter hastalığında endovasküler tedavi: Tek merkez deneyimi. Kocaeli Med J 2019; 8; 3:142-147

5. Yetkin U, Gürbüz A. Akut Arteriyel Tıkanıklıklarına Genel Bakış. Van Tıp Dergisi 2002;9:38-46

6. Ljungman C, Adami HO, Bergqvist D, A Berglund. I. Persson; Time trends in incidence rates of acute, non-traumatic ekstremity ischemia: a population-based study during a 19-year period. Br J Surgery, july 1991: Vol. 78. 857-60

Acute pancreatitis with normal serum amylase and lipase

Halil Alışkan[1]

[1]Şişli Hamidiye Etfal Education and Research Hospital

Background and aim: Acute pancreatitis is an acute inflammation of the pancreas. The disease is characterized by pathological changes of varying severity, ranging from mild form of edematous pancreatitis to severe necrotizing pancreatitis. Therefore, the prognosis of the disease is also variable. In 85-90% of the cases, mild and self-limited pancreatitis attacks caused by edematous interstitial inflammation, and severe pancreatitis disease develop in 10-15%. In severe pancreatitis, local or systemic complications with high mortality may occur. In this case, we aimed to present an acute pancreatitis patient with normal laboratory values.

Case: A 29-year-old male patient was admitted to the emergency department with abdominal pain and nausea. His history revealed that he had nausea that started two hours before his admission to the hospital. He hadn't used alcohol in 7 years and he was a social drinker. He had no history of gallstones. The patient's medical history was unremarkable. Vital signs at presentation were within normal limits. The intestinal sounds were reduced, and epigastric diffuse tenderness was present in the abdomen. There was no defence and rebaund. Other system findings were normal. Laboratory tests showed; leukocytes: 13,300 / mm3 (4,000-10,000 / mm3), creatinine: 0.91 mg / dl (0.75-1.25 mg / dl) Blood urea nitrogen: 9 mg / dl (8.9-20.6 mg / dl) AST: 25 (5-34 U / L) ALT: 56 (0-55 U / L) amylase: 38 (25-125 U / L) lipase: 13 (8-78 U / L) LDH: 149 (125-220 U / L) glucose: 101 (70-105 mg / dl). The other parameters were within normal limits. Intravenous (IV) contrast enhanced abdominal computed tomography showed increased pancreatitis density. The patient was consulted with the internal medicine clinic. Appropriate antibiotics and analgesics were started and hospitalized in the internal medicine department.

Conclusions: Contrast-enhanced abdominal CT imaging should be performed in patients presenting to the emergency department with typical abdominal pain, although patients with amylase and lipase values are normal in the diagnosis of pancreatitis. Normal amylase lipase values do not rule out pancreatitis. Patients with pancreatitis with typical belt pain and CT should be ordered for internal patients.

Keywords: acute pancreatitis , amylase , lipasa

A FOREIGN OBJECT MIGRATING FROM ESOPHAGUS TO HEART

Büşra BEKTAŞ

Introduction

Foreign bodies in the heart are rare, and can reach the heart in different ways. Ingested foreign bodies can cause serious complications such as penetrating injuries. However, there are not many reports of penetrating heart injuries caused by a needle penetrating from the esophagus to the right ventricle. In this case, we present a patient with ingested foreign body that was inadvertently swallowed and perforated the esophagus, then reached the right ventricle and caused a life-threatening situation.

Case Presentation

A 58-year-old female patient, a tailor, was presented to the emergency department with complaints of a feeling stuck in her throat, chest burning, and stomach pain, while eating for the last five days. She had no known medical history except diabetes mellitus. Her vital signs were stable and physical examination was normal. The blood tests were revealed; high levels of leukocytes (23.00 x 10^9/L), neutrophils (20.05 x 10^9/L) and slightly elevated Troponin-T (19.77 ng/L). Moreover, slightly elevated biochemical markers were found as follows creatinine (1.9 mg/dL), urea (41.7 mg/dL), total/direct bilirubin (1.50/1.10 mg/dL), aspartate transaminase (102 U/L), alanine transaminase (103 U/L), gamma glutamyl transferase (113 U/L), and alkaline phosphatase (125 U/L). Sinus tachycardia was found on electrocardiogram.

Bedside echocardiography revealed an effusion smaller than 1 cm in the pericardial space, which did not cause tamponade. The left ventricle ejection fraction (LVEF) was found as 60%. A 32 mm diameter metallic foreign body (needle?) was detected in the intrathoracic area on the computed tomography (CT) of the thorax (Figure 1). It was located obliquely, parallel to the ground, at the 10th thoracic vertebra level, and pointed to the right ventricle. It was assumed that the foreign body was in the myocardium and it had a close relationship with the aorta just proximal to the esophagogastric junction. There was no significant hemorrhage except the pericardium. Dilatation in the esophagus was remarkable. The tracheal and bronchial tract were open, and neither pneumothorax nor hemothorax was not detected. Pleural effusion was not observed. Trace, contour, and calibration of the aorta were followed naturally (Figure 2).

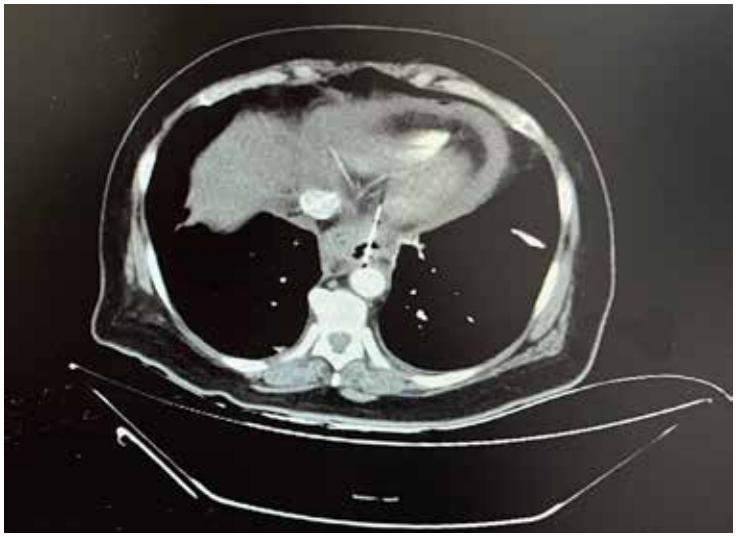


Figure 1. Axial computed tomography imaging best characterized the linear hyper-attenuating foreign body from the esophagus through to the right ventricle.

Figure 2. Sagittal oblique computed tomography imaging showed foreign body and pericardial fluid.

The thoracotomy decision was made with general and cardiovascular surgery together, and preparation for transfer to the operation room (OR) at the cardiovascular surgery center was started. In a while, hemodynamic instability occurred. Hypotension was observed (54/34 mmHg) in the ED follow-up. Positive inotrope was started intravenously. Bedside echocardiography was repeated, and an increase in pericardial effusion was observed. The diastolic collapse was not observed and systolic functions were still normal. The patient was immediately transferred to the OR. Just before the operation, cardiac arrest occurred. A full median sternotomy was performed and successfully resuscitation was made including closed and open compression (CPR). A vascular surgeon reached the pericardium by performing a sternotomy. She observed that the pericardial cavity was filled with

gastrointestinal fluid and the outer walls of the cardiac structures were impaired due to acidic fluid. Exploration was done and a metallic foreign body (needle) with the invasion of the inferior wall was observed. The needle was carefully removed (Figure 3). After then, the general surgeon started the esophageal exploration. While the exploration active bleeding, which appeared to originate from the fragile inferior vena cava, occurred. The repair was started, but the patient had a cardiac arrest simultaneously, and open CPR was started again. ECMO was applied, and multiple bleeding foci on cardiac structures are seen. Foci did not allow repair because the tissues were fragile due to acidic contact. Hemofiltration was started due to the lack of urine output and the increase in potassium levels. However, all resuscitative attempts failed and the patient died due to the fatal bleeding that developed during the operation.

Figure 3. View of the needle that was extracted from the patient's right ventricle.

Discussion

We present a patient with a self-ingested needle that migrated across the esophagus into the right ventricular wall. The patient required emergent intervention after arriving at the ED caused of the needle's place in the myocardium. Apart from symptomatology, early surgical removal was also indicated given the potential direct inoculation of the gastroesophageal flora into the myocardium. Unfortunately, in our case needle ingestion occurred five days ago, due to the presence of a foreign body in the gastrointestinal tract for a long time, when the operation started, we faced fragile structures with fatal hemorrhages. The CT imaging interrogated the needle's location throughout the management. In our case, prompt removal via upper endoscopy was not considered due to intracardiac migration of the needle.

Intra-cardiac foreign bodies are rare; however, when they do occur, they are often the result of trauma, IV drug use, or iatrogenic issues (1). The foreign bodies can directly pass through the myocardium or embolize through the venous system. When the literature was examined, we found that the foreign bodies in the heart should be managed on an individual basis, including a conservative or surgical approach depending on the clinical case (2,3). In the acute phase, intracardiac migration of foreign bodies should be anticipated due to the forces of respiratory and cardiac movements. Foreign bodies of the heart can be diagnosed immediately after an injury, or later post-complication if a patient becomes symptomatic, or even incidentally during evaluation for another condition. Late complications include pericarditis, cardiac tamponade, and endocarditis (4). In our case, patient had pericardial effusion and also perimyocarditis due to acidic fluid.

Conclusions

Regarding the former statements, our presented case needs attention. Although the patient didn't provide any information about swallowing a needle, physicians should suspect via complaints of discomfort and pains in the digestive tract. Foreign body ingestion should not be considered as basic, it can lead to fatal situations.

References

1. Actis Dato, G. M., Arslanian, A., Di Marzio, P., Filosso, P. L., & Ruffini, E. (2003). Posttraumatic and iatrogenic foreign bodies in the heart: report of fourteen cases and review of the literature. The Journal of thoracic and cardiovascular surgery, 126(2), 408–414. https://doi.org/10.1016/s0022-5223(03)00399-4

2. Perrotta, S., Perrotta, A., & Lentini, S. (2010). In patients with cardiac injuries caused by sewing needles is the surgical approach the recommended treatment?. Interactive cardiovascular and thoracic surgery, 10(5), 783–792. https://doi.org/10.1510/icvts.2009.226167

3. Vesna, D., Tatjana, A., Slobodan, S., & Slobodan, N. (2004). Cardiac tamponade caused by migration of a swallowed sewing needle. Forensic science international, 139(2-3), 237–239. https://doi.org/10.1016/j.forsci-int.2003.10.013

4. Woodworth, C. F., Fagan, S. M., Harris, S. R., & Adams, C. (2020). Clinical Pulp Fiction: First Multimodality Imaging of Needle Migration from Distal Esophagus into Ventricular Septum. JACC. Case reports, 2(4), 653–657. https://doi.org/10.1016/j.jaccas.2020.01.013

TWO FATAL DIAGNOSIS IN A PATIENT AT THE FERTILE AGE WHO PRESENTED WITH ABDOMINAL PAIN: DIABETIC KETOACIDOSIS+ ECTOPIC PREGNANCY RUPTURE

Ahmed Edizer MD[1], Yağmur Gökhan Semerci MD[2], Melih Uçan[3], Dr. Serkan Doğan[4], **Dr. Ayşe Nur Demirel[5]**, Dr. Arife Aydan Ensari[6]

Sağlık Bilimleri Üniversitesi İstanbul Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi Acil Tıp Kliniği, İstanbul, Türkiye

Introduction and purpose: Abdominal pain constitutes 40% of emergency department admissions. These pains; It can be in a wide spectrum from non-specific abdominal pain of no importance to other mortal causes. In this case, we see two causes of mortality at the same time.

Case: A 22-year-old female patient had a suboptimal anamnesis due to language problems. The patient states that she is 1 month pregnant. Beta-Hcg value 1 week ago: 13,000 mIU/ml. She never been to the hospital for pregnancy. She states that she does not have any other chronic disease. The patient's pain has been increasing progressively for 3 days. There is widespread pain in the abdomen. There is no vomiting, diarrhea, constipation, dysuria. Physical examination was done. The general condition is bad. In pale view. In vitals, arterial blood pressure is 84/52 mmHg, pulse: 130 per/minute, respiratory rate: 30 per/minute, fever: 36.6 centigrade degrees, capillary blood glucose: 484. Neither motor deficit nor sensory deficit was detected in her neurological examination. There was no sign of meningeal irritation. No pathological breath sounds were heard in both lungs by oscultation. On abdominal examination, there is widespread defense and rebound in 4 quadrants. ECG: Compatible with sinus tachycardia. The RUSH protocol was applied to the unstable patient. There was no finding in favor of massive pulmonary embolism or acute coronary syndrome. Diffuse fluid was seen in Morrison's pouch and splenorenal area. Gestational sac could not be visualized in the pelvic region. Arterial blood gas analysis concluded quickly. pH:7.0 Co2:9 mmHg HCO3:5 mmol/L BE: -27mmol/L, Lac:20 mm/L Na:134 mmol/LK:3.87 mmol/L . Ketone +3 was seen in fully automatic urinalysis. Central venous catheterization was applied to the patient. Stage-4 shock and diabetic ketoacidosis were considered. 2 units of O Rh(-) ES were replaced. Bolus isotonic fluid therapy was started. The Department of Obstetrics and Gynecology was consulted. The patient was taken to the operating room with the preliminary diagnosis of ectopic pregnancy rupture by the relevant branch. 7.0 Co2:9 mmHg HCO3:5 mmol/L BE:-27mmol/L, Lac:20 mm/L Na:134 mmol/LK:3.87 mmol/L . Ketone +3 was seen in fully automatic urinalysis. Central venous catheterization was applied to the patient. Stage-4 shock and diabetic ketoacidosis were considered. 2 units of O Rh(-) ES were replaced. Bolus SF therapy was started. The Department of Obstetrics and Gynecology was consulted. The patient was taken to the operating room with the preliminary diagnosis of ectopic pregnancy rupture by the relevant branch. 7.0 Co2:9 mmHg HCO3:5 mmol/L BE:-27mmol/L, Lac:20 mm/L Na:134 mmol/LK:3.87 mmol/L . Ketone +3 was seen in fully automatic urinalysis. Central venous catheterization was applied to the patient. Stage-4 shock and diabetic ketoacidosis were considered. 2 units of O Rh(-) ES were replaced. Bolus SF therapy was started. The Department of Obstetrics and Gynecology was consulted. The patient was taken to the operating room with the preliminary diagnosis of ectopic pregnancy rupture by the relevant branch.

Conclusion: There may be more than one mortal cause of abdominal pain, especially in women of childbearing age. It is absolutely beneficial not to focus on a single diagnosis and to review the differential diagnoses over and over again.

MAD HONEY POİSONİNG

Hazel Deniz Erdoğan, Avni Uygar Seyhan, Erdal Yılmaz, Rohat Ak, Sarper Yılmaz, Rumeysa İnci

Kartal Dr. Lütfi Kırdar Şehir Hastanesi, Acil Tıp Anabilim Dalı, İstanbul

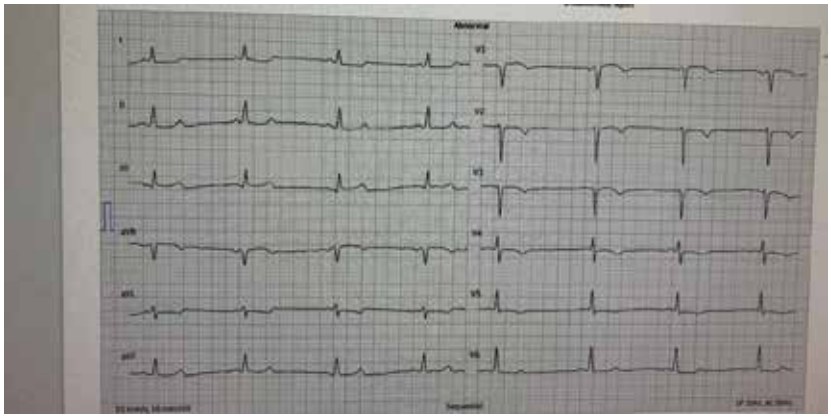
İntroduction: Mad honey is made from the nectar of various species of the rhododendron plant, most commonly Rhododendron ponticum and Rhododendron luteum, which is mainly found in the eastern Black Sea area and has long been used for its supposed therapeutic properties in gastroduodenal disease, diabetes, hypertension and sexual dysfunction (1). Rhododendron plant is found mainly in the Black Sea region of Turkey, Nepal and the North and West regions of the Americas. (5). Its main symptoms are nausea, vomiting, somnolence and syncope, the latter as a result of bradycardia and hypotension (2). Sinus bradycardia, nodal rhythms, and varying degrees of atrioventricular block are the most common cardiac rhythm disorders reported in mad honey intoxication/ poisoning (3,4). In this case, we aimed to present the development of bradycardia after a history of eating honey in the anamnesis of the patient who applied with the complaints of vomiting, dizziness, visual and speech disorders.

Case Presentation: A 70-year-old male patient applied to the emergency department with vomiting, dizziness, visual and speech impairment. He has a known history of hypertension, diabetes mellitus, coronary artery disease. Vital signs on admission and bedside glucose results were as follows: blood pressure: 80/50 mmHg, pulse rate: 35 bpm, respiratory rate: 15 bpm, temperature: 37.5 C, GCS: 15 mg/Dl. No pathology was detected in the physical examination. No pathology was detected in blood tests and imaging. When the patient's anamnesis was deepened, it was learned that his complaints started after a history of eating honey of unknown origin from Erzincan in Turkey. Electrocardiography was found to be compatible with sinus bradycardia (Figure 1). Adenosine 0,5 mg was administered intravenously. Control arterial blood pressure was measured as 120/60 mmHg and heart rate as 70 bpm. The patient, whose symptoms regressed after 6 hours of close follow-up, was discharged verbally.

Conclusion: The most effective diagnostic method in mad honey poisoning is anamnesis. It is especially important to know the origin of the honey consumed. In cases where no pathology is found to explain symptoms such as vomiting, syncope, and bradycardia in patients admitted to the emergency department, the history of eating honey should be questioned in the anamnesis. Patients evaluated as mad honey poisoning usually benefit from appropriate fluid hydration and atropine.

Keywords; Mad honey poisoning, bradycardia, vomiting, dizziness

Figüre 1.



ECG: *Sinus bradycardia before treatment.*

References

1) Jansen SA, Kleerekooper I, Hofman ZL, Kappen IF, Stary-Weinzinger A, van der Heyden MA. Grayanotoxin poisoning: 'mad honey disease' and beyond. Cardiovasc Toxicol. 2012;12(3):208-215. doi:10.1007/s12012-012-9162-2.

2) Choo YK, Kang HY, Lim SH. Cardiac problems in mad-honey intoxication. Circ J. 2008;72(7):1210-1211. doi:10.1253/circj.72.1210

3) Bostan M, Bostan H, Kaya AO, et al. Clinical events in mad honey poisoning: a single centre experience. Bull Environ Contam Toxicol. 2010;84(1):19-22. doi:10.1007/s00128-009-9906-2

4) O. Sogut , M. B. Sayhan , C. Mordeniz , M. T. Gokdemir and B. Al , Mad honey poisoning: a case report and review of the literature, *Anatolian Journal of Clinical Investigation*, 2009, **3** , 100 —102

5) Gunduz A, Bostan H, Turedi S, Nuhoğlu I, Patan T. Wild flowers and mad honey. Wilderness Environ Med. 2007;18(1):69-71. doi:10.1580/06-weme-le-042r.1

Spigelian Hernia : Patient Presenting with Abscess on the Anterior Abdominal Wall

Bilge Kağan Sektioğlu

Background and aim: Spigelhernia is an extremely rare abdominal wall defect. Due to its anatomical structure, it is difficult to diagnose with physical examination.

Case: A 41-year-old female patient applied to the emergency service due to increased pain in the left lower quadrant for the last 2-3 days, swelling and redness of the skin.

Pulse on physical examination of the patient; 96/min, Blood Pressure; 110/70 mm Hg, Fever; It was 38.2 C.

Abdominal pain was present for 15 days.

The patient, who had complaints of nausea, vomiting, fever and weakness, had the last gas and stool output the day before.

He had a history of panic attack disease. He had no other internal disease or history of surgery.

In the abdominal examination, reddened swelling with a diameter of about 10 cm in the pelvic region in the left lower quadrant of the abdomen, abscess located under the skin? There were signs of tenderness, defense, and rebound in both lower quadrants.

BK in the patient's blood values; 13,400, Hb; 8.5, CRP; 21.64 (0-0.5), blood electrolytes, liver enzymes and kidney function tests were found to be in the normal range.

In the abdominal computed tomography performed on the patient, an appearance consistent with an abscess with a diameter of 11 cm was detected in the region extending from the pelvis to the umbilicus in the left lower quadrant.

The patient was given metronidazole, gentamicin and clindamycin treatment before surgery.

The patient underwent surgery with these findings.

In the laparoscopic exploration performed under the umbilicus with a camera, it was found that there was pus in the pelvis between the intestinal loops, and an incarcerated Spigelian hernia with the omentum in the left lower quadrant.

The patient was discharged without any problem, and no recurrence was detected in the hernia in the follow-up.

Conclusions: Although Spigelian hernias constitute only 0.12% - 2.4% of all abdominal hernias, they are very important because of the high risk of incarceration (17-24%) and strangulation.

Spigelhernia (lateralventral hernia) is an extremely rare abdominal wall defect. Medially, there is the Rectus Abdominis muscle, and laterally, the semilunar line. It develops in the weak area of the Spigelian fascia, at or below the arcuate line.

In this hernia, there is a defect in the internal oblique and transversus abdominis muscles, while the external oblique muscle remains intact, so it is classified as an interparietal hernia. Due to this anatomical structure, it becomes difficult to diagnose with physical examination.

Abdominal pain and abdominal wall swelling are most common in the symptomatic patient group. Patients are often diagnosed intraoperatively in a complicated condition.

Physical examination, ultrasonography and computed tomography are helpful in the diagnosis stage.

Our patient with panic attack disorder had pelvic inflammatory disease who admitted to the hospital too late. While taking anamnesis from the patient, the patient concealed the complaint of vaginal foul-smelling discharge. The pus accumulated in the abdomen herniated together with the nomentum in the anatomical weakness area in the left lower quadrant, and became Spigelhernia accompanied by abdominal wall abscess.

Complication of Spontaneous Intracranial Hypotension

Mehmet Demir[2], Bilal Yeniyurt[1], Melih Uçan[1], Necati Akyılmaz[1], Serkan Doğan[1], Arife Çimen Atalar[2]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic

[2]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Neurology Clinic, Istanbul, Turkey

OBJECTIVE: Spontaneous intracranial hypotension (SIH) is characterised by orthostatic headache, low cerebrospinal fluid pressure and diffuse pachymeningeal enhancement after intravenous gadolinium contrast administration. (SIH) is a rare syndrome due to cerebrospinal fluid (CSF) leakage mostly in the cervical or cervicothoracic region that accompanies decreased intracranial pressure and volume. The causal relationship is often unclear. This syndrome produces a range of symptoms. The common clinical presentation of SIH is a postural headache, but this feature often disappears with time. Magnetic resonance imaging (MRI) often plays a crucial role for correct diagnosis. Patients classically present with orthostatic headaches, but this symptom is not specific to SIH, and initial misdiagnosis is common. SIH can rarely lead to subdural hematoma (SDH) with neurological deficits. Therefore, prompt diagnosis and appropriate treatment of SIH is essential. Initial treatment includes conservative treatments, but epidural blood patch (EBP) is the mainstay of treatment in patients who fail conservative treatment. In patients with SIH, any change in headache pattern was defined as red flag signs of SDH development. However, its management is debatable. We report a patient who had clinical and neuroimaging features that were characteristic of SIH, and later developed bilateral subdural haemorrhage.

CASE: A 45-year-old male presented to Emergency Department after awakening from sleep with an acute posterior bilateral headache. The headaches were aggravated when he assumed an upright posture (sitting or standing) and alleviated when lying down. It was associated with nausea, vomiting, and bilateral tinnitus and worsened with exertion. The patient denied any recent history of falls or head trauma. Physical examination revealed no sensory or motor deficits. Cranial nerves were intact. Over-the-counter analgesics were ineffective. Brain MRI revealed diffuse pachymeningeal enhancement. These MRI findings and history were consistent with spontaneous intracranial hypotension headache (fulfilled International Classification of Headache Disorders-3). We described a case of SIH, whose clinical and imaging features are typical for this pathology. At MRI brain scan, the patient showed diffuse and intense pachymeningeal enhancement. He was treated conservatively with strict bed rest, adequate hydration and analgesia. Absolute bed rest for 2 weeks was recommended to the patient. Headache worsened due to patient's non-compliance with the warnings and treatment methods. Two weeks later, he returned with recurrence of his headache. The pattern of headache changed, persisted despite lying position and he complained of severe headache, neck pain. He presented with drowsiness, difficulty speaking, and mild weakness in the arms and legs. On physical examination, the general condition was moderate, and consciousness was confused. Orientation and cooperation were limited. He opened his eyes with verbal and tactile stimuli and had bilateral +4/5 muscle strength in his extremities. A brain CT scan and MRI were obtained and showed the development of bilateral subdural hematomas (SDHs). The patient was transferred to the outer center intensive care unit for follow-up and treatment. It was learned that due to clinical deterioration, the hematoma was evacuated by surgery. He was continued on intravenous hydration, tablet caffeine and strict bed rest. Clinically, it was stated that the headaches decreased and the weakness in the extremities improved. In control neuroimaging, it was observed that the subdural hematoma decreased and partially resorbed. It was learned that planning was made for clinical follow-up and control examinations after discharge.

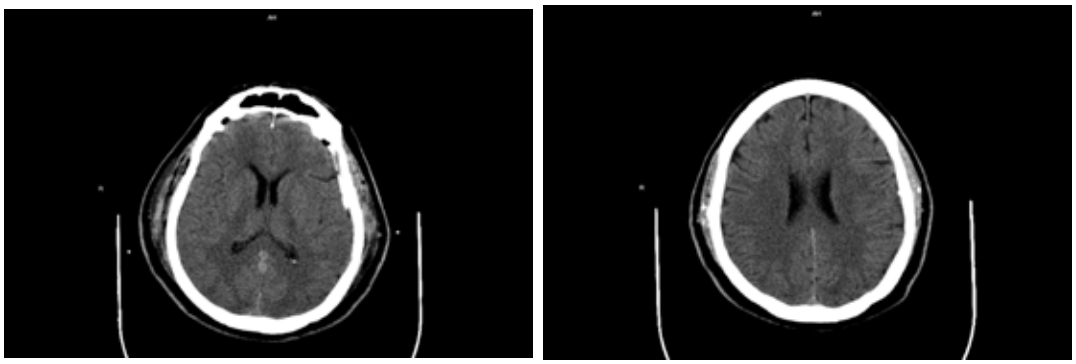


image -1 & 2 Postoperative 1. day

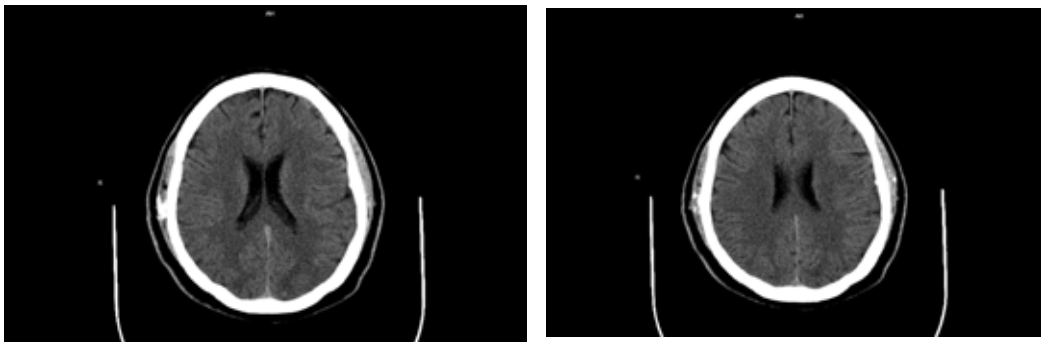


image - 3 & 4 Postoperative 30. day

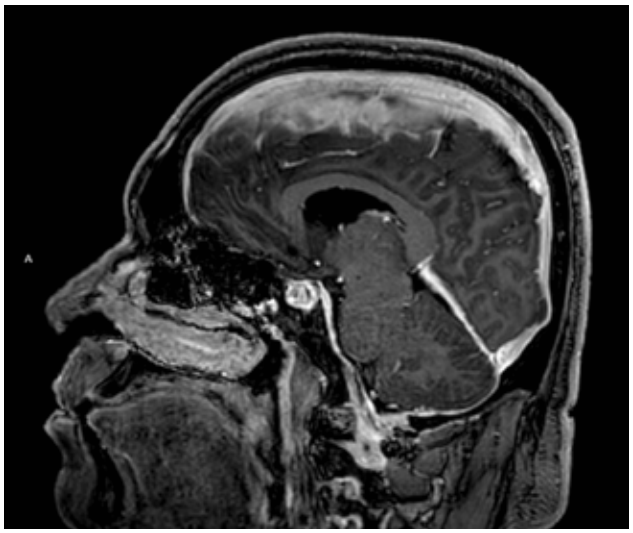


image -5 Spontaneous Intracranial Hypotension with MRI

RESULT: Orthostatic nature of headache is the most indicative clinical element to suggest the hypothesis of SIH; contrast-enhanced MRI provides qualitative and quantitative findings, leading the radiologist and the clinician to the final correct diagnosis. This case of spontaneous low CSF pressure headache is a relatively rare cause of headache and highlights the diagnostic and physical toll on a patient for a potentially curable cause of debilitating headache. The diagnosis, treatment, and management of the patient are dependent on excellent teamwork and coordination between an interprofessional team that includes internists, neurologists, radiologists, and neurosurgeons. The management of SDH in SIH remains controversial. Conservative therapies, including bed rest and hydration, may be the effective first-line treatment in patients with SIH complicated by SDH. Evacuation of SDH in

SIH may be another life-saving option in case of clinical deterioration. In general, SDH has high mortality (around 55%) and functional recovery after surgical drainage has been reported to be around 33%. SIH complicated by SDH is commonly treated with Epidural Blood Patch EBP; however, there are case reports which have described the successful burr hole drainage of hematomas.

Keywords: *low cerebrospinal fluid pressure headache, postural headache, spontaneous intracranial hypotension*

A Rare Complication After Intragastric Botulinum Toxin-A Injection for the Treatment of Obesity: Hematoma

Muhammed Fatih CIRIL[1]

[1]University of Health Sciences, Sancaktepe Sehit Profesor Ilhan Varank Training and Research Hospital

Background and aim: Obesity is an increasingly common health problem with many comorbidities. Surgical treatments have become widespread due to the failure of pharmacological treatments. Due to the high side effects of surgical treatments, intramural injection of Botulinum toxin-A (BTX-A), which is thought to delay gastric emptying by strongly and long inhibiting smooth and striated muscles, is applied for therapeutic purposes. In our case, the diagnosis process of a very rare intramural hematoma complication that occurs after the injection of botulinum toxin into the stomach wall with endoscopic intervention is discussed.

Case: 42-year-old female patient; she applied to our emergency department with complaints of nausea and abdominal pain last 4 days and constipation last 2 days. Endoscopy and gastric botox application for obesity was performed 13 days ago in an external center. There was no history of additional disease. Vitals are stable at the time of application.On physical examination, there was diffuse tenderness in the upper quadrants of the abdomen and epigastric defense, and there was no rebound. WBC: 13.220 103/µL, neutrophil: 10.400 103/µL, hemoglobin:12.7 g/dl in blood count. No abnormality was detected in other laboratory parameters. Intravenous contrast enhanced abdominal tomography was performed because the patient's complaints did not regress after 40 mg of pantoprazole was administered intravenously. Diffuse thickening of the stomach wall and a hypodense area suggesting a 42 x 36 mm hematoma in the antipyloric region adjacent to the major curvature were detected (Figure 1). The patient was consulted to general surgery. He was hospitalized by general surgery for follow-up and treatment. Invasive intervention was not considered for the patient who did not have a decrease in hemoglobin and did not have active bleeding. After a one-day follow-up, the patient's complaints regressed and she was discharged.

Conclusions: In our country, intramural gastric BTX-A injection is frequently applied for the treatment of obesity. Patients who apply to the emergency department with such complaints after BTX-A application should be followed carefully by emergency physicians in terms of complications.

Keywords : botulinuim , gastric injection , hematoma

An Interesting Case of Blunt Abdominal Trauma

Enad Kenan, Melih Yüksel, Mehmet Oğuzhan Ay, Halil Kaya, Umut Ocak

University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim

It is difficult to diagnose in patients with blunt abdominal trauma. Despite clinical, laboratory and radiological evaluation in observation, it may take time for clinical signs of intra-abdominal damage to appear. One of the most frequently injured organs in blunt abdominal trauma is the stomach. However, isolated gastric perforation is rare and difficult to diagnose since injuries occur with the direct effect of trauma or the effect resulting from movement, compression, stretching or tearing. Bleeding in solid organs, perforation in hollow organs, bleeding and peritoneal contamination may develop. Retroperitoneal injuries are usually initially asymptomatic. Nowadays, the most common cause of blunt abdominal trauma is motor vehicle accidents. Due to the lack of clear clinical findings in the early period and the lack of specific diagnostic tools, the diagnosis is delayed and causes an increase in mortality and morbidity.(1-4)

Case

A 23 year old male patient. 112 was called because he was hit by a machine reversing while at work. The patient, who had no known chronic disease, suffered from pain and tenderness in the epigastric area in physical examination. Vitals were as follows: heart rate 100/min, blood pressure 127/78 mm/Hg, FAST USG negative. Lung X-ray and standing direct abdominal X-ray were taken. No subdiaphragmatic free air was observed(**Figure A)**. Whole abdominal tomography was taken, no feature was found.The initial laboratory tests of blood, such as blood routine test, liver function test, and international normalized ratio, were within normal limits. The patient was followed up in the emergency room. The patient's epigastric pain did not decrease despite analgesic treatment. General surgery was consulted, the patient was admitted to the general surgery service for follow-up, and the patient continued to have abdominal tenderness at Hour 23 of follow-up. Control standing direct abdominal X-ray and abdomen CT was taken to the patient (**Figure B)**. His CT showed free air and fluid in the abdomen; as such, the operating room was prepared for the emergency operation.

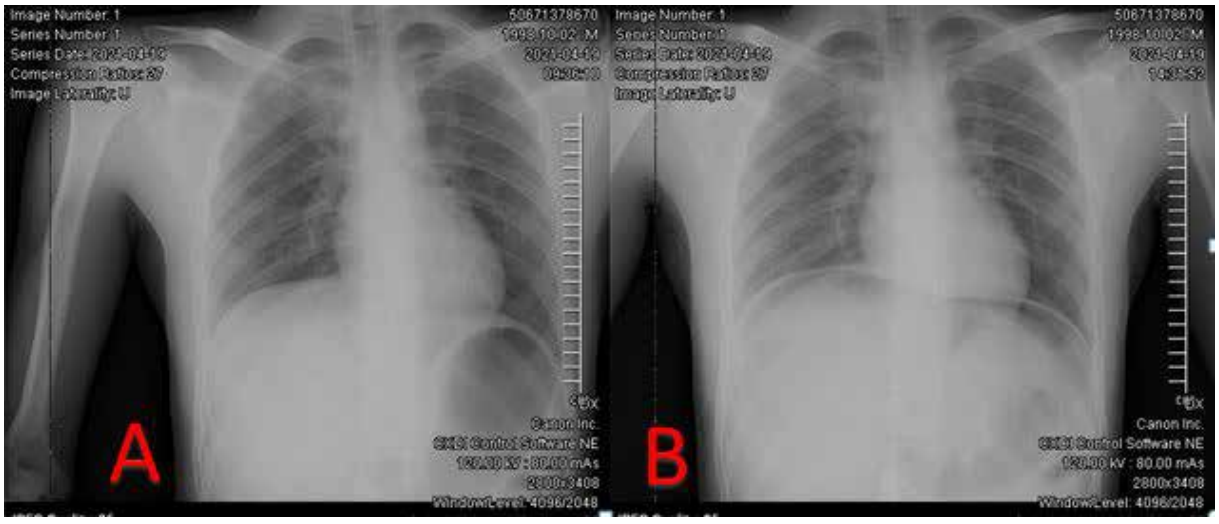


Figure A: standing direct abdominal X-ray 0.hours

Figure B: standing direct abdominal X-ray 23.hours

Conclusion

Differential diagnosis of blunt abdominal trauma is difficult to diagnose and clinical symptoms may take time to show. In cases with suspected gastric perforation, early laboratory tests, direct abdominal X-ray and even computed tomography may not always help in the diagnosis. Patients should not be sent home directly after the first evaluation. In this process, repetitive control physical examination, laboratory and control ultrasound are important. We recommend that every patient with suspicious clinical signs be observed for at least 24 hours. We should not avoid regular examination of the patient.

References

1.Garside G, Khan O, Mukhtar Z, Sinha C. Paediatric duodenal injury complicated by common bile duct rupture due to blunt trauma: a multispecialist approach. BMJ Case Rep. 2018 Aug 29;2018 [PMC free article] [PubMed]

2.Zhou H, Ma X, Sheng M, Lai C, Fu J. Evolution of intramural duodenal hematomas on magnetic resonance imaging. Pediatr Radiol. 2018 Oct;48(11):1593-1599. [PubMed]

3.Molinelli V, Iosca S, Duka E, De Marchi G, Lucchina N, Bracchi E, Carcano G, Novario R, Fugazzola C. Ability of specific and nonspecific signs of multidetector computed tomography (MDCT) in the diagnosis of blunt surgically important bowel and mesenteric injuries. Radiol Med. 2018 Dec;123(12):891-903. [PubMed]

4.Taghavi S, Askari R. StatPearls [Internet]. StatPearls Publishing; Treasure Island (FL): Jul 19, 2022. Liver Trauma. [PubMed]

Prepontine System Bleeding

Arife Aydan Ensari[1], Vildan Avcu[1], Talha Özsu[1], İsmail Enver Obuz[1], Utku Murat Kalafat[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Subarachnoid hemorrhage is a pathological condition in which blood diffuses into the subarachnoid space. Traumatic subarachnoid hemorrhage is a post-traumatic rupture of the intracranial arteries and bridging veins or in which blood is diffused into the subarachnoid space by diffusion from cortical contusions. The most important factor in etiology is traffic accidents, and it is more common in men in their forties. In our case, the patient was brought by 112 after falling off the scooter.

Case: A 30-year-old male patient was brought to us by 112 after falling off a scooter. He was unconscious when he arrived. He was disorientated and had limited cooperation, and GCS was evaluated as 11. Vital signs were stable. In his neurological examination, there was no motor sensory deficit, bilateral light reflexes exist, and the pupils were bilaterally isochoric. In his physical examination, other system examinations were normal except for ecchymosis in the right periorbital area and abrasions on the face and arms. In our patient's brain CT, hemorrhage was observed in the parenchyma between the lateral ventricles . In our patient who was consulted with neurosurgery, emergency operation was not considered and intensive care follow-up was recommended. Our patient was admitted to the intensive care unit, as no additional pathology was detected in the emergency service follow-up and examinations.

image-1

Conclusions: In acute cases, early diagnosis and treatment method reduces the rate of death or permanent neurological deficit. 69 million people have traumatic brain injury each year, and traumatic brain injury is the cause of subarachnoid hemorrhage. Traumatic sah has been identified as an adverse prognostic factor leading to progressive neurological deterioration and increased morbidity and mortality. Like aneurysmal subarachnoid hemorrhages, traumatic subarachnoid hemorrhages are evaluated according to the amount and distribution of blood on CT.Its treatment is mainly directed towards the complications of bleeding. In patients with traumatic subarachnoid hemorrhage, it is thought that the patient's age, low entry GCS, localization in the fissures or excessive clot thickness, co-lesion such as acute subdural hematoma or intracerebral hematoma affect the prognosis negatively. Although traumas with high energy cause this clinic, we may encounter such lethal clinics in traumas with low energy as in our case. Every trauma case should be handled and evaluated with the worst case scenario.

Anahtar Kelimeler : intracerebral hematoma , intracranial pressure , subarachnoid hemorrhage , trauma

The value of SII index in predicting mortality in elderly ER critical care unit patients

Sultan OZSELCUK[1], Ramazan GUVEN[1], Gülsüm CALISKAN GUNAY[2]

Basaksehır Cam and Sakura City Hospital,İstanbul, TURKEY

Antalya Atatürk Devlet Hastanesi, Antalya, TURKEY

Background: The aim of our study is to show whether the SII index is useful in predicting mortality in geriatric patients with a high qSOFA score in the ER critical care unit.

Method: Written informed consent was obtained from geriatric critical care patients with a qSOFA score of 2 and above. The outcomes of these patients in the emergency department were evaluated. Patients divided into 2 groups as mortal and non-mortal patients. Statistical analysis was performed between groups.

Results: This study included 200 geriatric patients who admitted ER critical care area with qsofa higher than 1. The mean age was 76,8±7,0. Diagnostic test performances of SII Index scoring, which was evaluated with the mortality variable in the study.It was determined that the SII Index score was above 648, the sensitivity of the SII index was 100% and the specificity was 31.9%. The frequency of being male was higher in patients with high Si index value (p=0.047; p<0.05). Presence of mortality was higher in patients with high SII index (p=0.010; p<0.05). A weak positive correlation was found between the patients' SII index score and ALT, BUN, and creatinine values (r=0.164; r=0.182; r=0.152), respectively. A weak negative correlation was found between the Na value and the Si index score (r=-0.213).

Conclusion: The SII index can be used as a useful predictor of mortality in geriatric patients with a high qSOFA score admitted to the emergency department. In male patients, the SII index may be a more useful predictor of mortality compared to female patients. There may be a relationship between the ALT, BUN and creatinine value changes of the patients and the SII index. There is a needed further study on this subject.

INTRODUCTION

Scoring in the guideline has a very important place in choosing which patients who admitted to the emergency department will be mortal and which will go home or be hospitalized. Scorings guide the emergency physician in terms of both examination and treatment. Predicting the mortality of the patients and early intervention accordingly are very important in saving the lives of the patients.

Early diagnosis becomes more important especially for special groups that we refer to as the red flag patient group and where we have difficulties in diagnosis and treatment in the emergency room. One of these groups is the elderly patient group. It is necessary to move away from the classical patient approach, which complicates our work both at the point of diagnosis and at the point of treatment, and a more personalized method should be followed, especially for patients aged 65 and over. Their response to sepsis may be suppressed by the drugs they use. Or, the sepsis status of the patient may be noticed late due to the effects of drugs. There is a need for practical tools that will not delay the diagnosis of elderly patients and guide the diagnosis in intensively working emergency services.

Sepsis is a state of organ dysfunction caused by dysregulated host response to infection. It is a critical condition leading to a high rate of mortality and is considered a significant health problem worldwide. The incidence of sepsis increases with age, especially in very elderly patients (age ≥80 years), and mortality is also significantly higher in this population.[1] This high incidence and mortality could be explained by various reasons, such as multiple

pre-existing comorbidities, reduced functional reserve, and abnormal immune system.[2] Diagnosing sepsis is also more difficult, given elderly patients' vague symptoms and atypical clinical presentations. This poses an extreme challenge for emergency physicians to recognize such patients early, especially those at greater risk of adverse outcomes. Although the mortality rate from sepsis is exceptionally high in geriatric patients, little is known about the predictive factors of this adverse outcome, there need to use new predictors.

We use systemic immun-inflamation İndex (SII index) to predict mortality in elderly and very elderly patients who admitted Emergency Room (ER) with sepsis in this study. The systemic immune-inflammation index (SII), a novel inflammatory marker, is associated with the clinicopathological features and prognosis of several cancers, such as colorectal cancer, breast cancer, hepatocellular carcinoma and PC.[3] The SII is calculated using the following formula: SII = platelet count × neutrophil count/lymphocyte count. The index is used different groups like in COVID-19[4], coronary artery desease[5], acute pancreatitis[6], aneurysmal subarachnoid hemorrhage[7], recent studies.

METHODS

We studied with septic elderly and very elderly patients who admitted to ER department of Basaksehir Cam and Sakura City Hospital in 1 May 2021- 1 May 2022. We used qSOFA score to choose septic patients. Patients with a qsofa score of 2 and above were included in the study. Patients aged 65 and over were named as elderly, and patients aged 85 and over were named as very old.

Statistical Evalution

SPSS (Statistical Package for the Social Sciences) 25.0 package program was used for statistical analysis of the data. Categorical measurements were summarized as numbers and percentages, and continuous measurements as mean and standard deviation (median and minimum-maximum where appropriate). Chi-square and Fisher's exact tests were used in the comparison of categorical expressions. Shapiro-Wilk test was used to determine whether the parameters in the study showed normal distribution. Mann Whitney U test was used for the parameters that did not show normal distribution. The sensitivity (sensitivity) and specificity (specificity) values of the Si Index score were calculated based on the mortality variable of the patients included in the study, and the cut-off value was determined by examining the area under the ROC curve. Statistical significance level was taken as 0.05 in all tests.

consent was obtained from all patients included in the study.

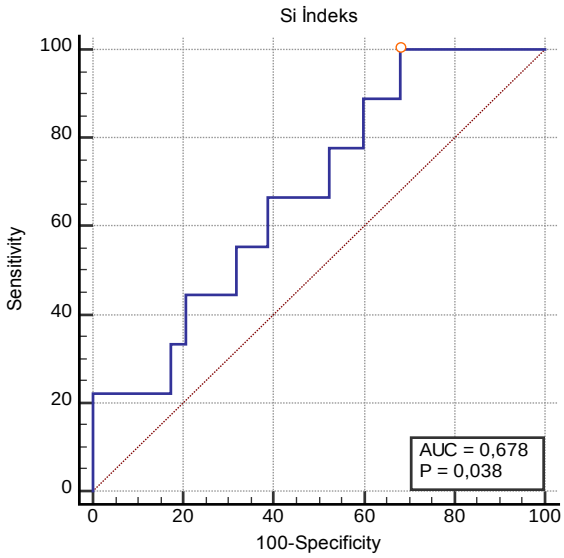
RESULTS

Table 1. Demographical and clinical futures of patients

	Frequency(n)	**Percent(%)**
Gender		
Male	114	57,0
Female	86	43,0
	Ort±ss	**Med (Min-Maks)**
Age	76,8±7,0	76,5 (65-95)
Body temperature	36,5±0,7	36 (34-39)
pulse	85,6±23,4	85 (13-171)
Sistolic tension	124,5±30,9	125,5 (68-227)
Diastolic tension	71,2±18,6	70 (40-184)
SPO_2	93,6±6,3	95 (60-100)
qSOFA	2,1±0,3	2 (2-3)

Table 2. Biochemical parameters in blood sample

	Ort±ss	Med (Min-Maks)
pH	7,35±0,1	7,36 (6,8-7,57)
PCO_2	47,4±44,1	43 (24-650)
HCO_3	24,1±6,3	25 (7,2-43)
Lactate	2,01±1,8	1,5 (0,5-13)
Glucose	165,5±95,4	129 (31-587)
AST	41,7±65,7	23 (7-582)
ALT	34,5±57,8	19 (2-572)
BUN	69,3±52,5	53 (14-379)
Creatinin	1,52±2,3	1,1 (0,3-31)
Na	136,4±11,2	137 (13-173)
Neutrophil	9,02±10,2	7,12 (0,28-83)
Lymphocyte	1,95±1,2	1,2 (0,12-7,0)
Platelet	243,9±115,8	226,5 (20-962)



Figüre 1. Examination of mortality variable and Sİİ index score with Roc curve

Table 3. SII index Diagnostic Test Performance

	SII index
AUC 95%-CI (%)	0,678 (0,602-0,748)
Cut-off	>648
Sensitive (%)95%-CI (%)	100 (66,4-100)
Spesitive 95%-CI (%)	31,9 (24,7-39,7)
PPV 95%-CI (%)	7,6 (6,9-8,4)
NPV 95%-CI (%)	100 (100-100)
p	**0,038***

** p<0,05, **p<0,001, Roc curve test*

Diagnostic test performance of SII index scoring which was evaluated with the mortality variable in the study are shown in Table 3. Accordingly, it was determinated that the SII index score was above 648, the spesivity of the SII index was 100%, and the specivity was 31.9%.(Table 3)

Table 4.Comparison with SII index and Demographical and clinical futures of patients

	Si İndeks		
	Düşük (n=82)	**Yüksek (n=118)**	**p[a]**
Gender			
female	53 (64,6)	61 (51,7)	**0,047***
male	29 (35,4)	57 (48,3)	
Mortality	-	9 (7,6)	**0,010***
Age			
<85	50 (61,0)	75 (63,6)	0,710
≥85	32 (39,0)	43 (36,4)	
	Ort±ss	**Ort±ss**	**p[b]**
Age	77,0±7,6	76,6±6,6	0,828
Body temperature	36,5±0,6	36,5±0,7	0,896
pulse	87,8±19,5	84,0±25,7	0,231
Systolic tension	123,8±27,2	124,9±33,4	0,595
Diastolic tension	72,8±15,0	70,0±20,7	0,137
SPO2	94,3±4,7	93,1±7,2	0,560
qSOFA	2,09±0,3	2,10±0,3	0,699

** p<0,05, a: Ki-kare ve fisher exact test, b: Mann whitney u test*

The frequency of being female was higher in patients with high SII index value (p=0.047; p<0.005). Presence of mortality was higher in patients with high SII ndex (p=0.010; p<0.05).(Table 4)

Table 5. Comparison with SII index and blood test sample results

	SII index	
	r	**p**
pH	0,106	0,172
PCO2	-0,108	0,161
HCO3	-0,008	0,914
Laktat	0,106	0,169
Glukoz	0,114	0,141
AST	0,033	0,667
ALT	0,164*	**0,033**
BUN	0,182*	**0,018**
Kreatinin	0,152*	**0,049**
Na	-0,213**	**0,005**

** p<0,05, **p<0,001, Spearman corellation test*

A weak positive correlation was found between the patients' SII index score and ALT, BUN and creatinine values (r=0,164; r=0,182; r=0,152). A weak negative correlation was found between the Na value and the SII index score (r=-0.213).(table 5)

DISCUSSION

Recognizing sepsis and predicting mortality in elderly patients, who are among the red flag groups, is very important for both diagnosis and early initiation of treatment. The data we obtained from these studies we have done show us that the SII index score can predict mortality in elderly patients with 31.9% specificity and 100% sensitivity.

In other studies conducted in the literature, different cut-off values related to mortality such as ≥2207.53, ≥960, ≥2519.89± 2188.53, 694.3 were obtained4-8. In our elderly patients, a SII index value of 648 and above was found to be closely associated with mortality (p=0.038).

The SII index was more successful in predicting the mortality of female patients. No data on this has been found in the literature.

The SII index score was higher in cases with mortality (p=0.010). This data can be used as a predictor of the SII index in the estimation of mortality in patients aged 65 years and older with sepsis who applied to the emergency department. At the literature, there are many studies that have obtained similar results, although the cut-off values vary in studies conducted in different fields.

Considering the blood test results, no correlation was found between SII index and lactate. There is a need for further studies on this subject in order to investigate whether the lactate levels of the patients do not increase despite their sepsis, or the lactate response develops slowly in the elderly patients, or the SII index is more sensitive to predict mortality.

According to the results, the increase in ALT, blood urea and creatinine levels in elderly patients with sepsis may mean that the SII index score will also be higher and the course of the patient will be more mortal, opposite is also true. Additional studies are needed in this regard.

In the light of the data, the low blood Na value of the elderly patient who admitted to the emergency department with sepsis, means that the SII index will be higher and may be more mortal. The low SII index value of the patient means that the Na value will be higher. Additional work on this subject is needed.

REFERENCES

1. 9. Haas LE, van Dillen LS, de Lange DW, et al. Outcome of very old patients admitted to the ICU for sepsis: a systematic review. Eur Geriatr Med. 2017;8(5):446–53.

2. Nasa P, Juneja D, Singh O. Severe sepsis and septic shock in the elderly: an overview. World J Crit Care Med. 2012;1(1):23–30.

3. Xing Li, Lijiang Gu, Yuhang Chen, at al. Systemic immune-inflammation index is a promising non-invasive biomarker for predicting the survival of urinary system cancers: a systematic review and meta-analysis. Ann Med. 2021; 53(1): 1827–1838.

4. Müge bilge, Isıl Kibar Akıllı, Ekrem Bilal Karaayvaz et al. Comparison of systemic immune-inflammation index (SII), early warning score (ANDC) and prognostic nutritional index (PNI) in hospitalized patients with malignancy, and their influence on mortality from COVID-19. Infect Agent Cancer. 2021; 16: 60.

5. Xingming Liu, Guoxin Guan, Xinye Cui et al. Systemic Immune-Inflammation Index (SII) Can Be an Early Indicator for Predicting the Severity of Acute Pancreatitis: A Retrospective Study. Int J Gen Med. 2021; 14: 9483–9489.

6. Mustafa Candemir, Emrullah Kiziltunc, Serdar Nurkoc et al. Relationship Between Systemic Immune-Inflammation Index (SII) and the Severity of Stable Coronary Artery Disease. Angiology. 2021 Jul;72(6):575-581.

7. Seonyong Yun, Ho Jun Yi, Dong Hoon Lee, at al. Systemic Inflammation Response Index and Systemic Immune-inflammation Index for Predicting the Prognosis of Patients with Aneurysmal Subarachnoid Hemorrhage. J Stroke Cerebrovasc. 2021 Aug;30(8):105861.

8. Ya-ling Yang, Cheng-Hsueh Wu, Pai-Feng Hsu, et al. Systemic Immune-inflammation Index(SII index) predict clinical outcome in patients with corornary artery desease. Eur J Clin İnvest. 2020 May;50(5):e13230

AIRWAY MANAGEMENT OF A FACIAL INJURY WITH NASOTRACHEAL INTUBATION

Julide Sayın Kart[1] , **Nihat Müjdat Hökenek**[2]

[1]Department of Anesthesiology and Reanimation, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey
[2]Department of Emergency Medicine, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey

Background and aim: Traumatic lesions to the skin are a major problem faced by emergency services. Dogs are responsible for %60-80 of this kind of cases (1). Facial dog bite injuries continue to be a significant public health concern with the potential to create significant long-term morbidity, disfigurement, and even death (2).

Case: 58 years old woman patient with dog bite administired to emergency service. She reported multipl bites caused by her neighbors' dog (regularly vaccinated) one hour before. She has hypertension and heart failure in history. After monitorizing; arterial pressure was: 150/110 mmHg, fewer: 36.2°C, spO2: %98 were found. On physical examination, open wounds due to dog bite were detected on the face and all four extremities of the patient. The patient was consulted to plastic and reconstructive surgery, orthopedics, infectious diseases and then all wounds were clogged with soapy water and antibiotics were started. Plastic and reconstructive surgery decided to operate the patient under emergency conditions. In operation room , she was agitated and hemodynamically stable with Glasgow coma scale of 15. After standard monitorization and anesthesia induction, she was difficult intubation patient because of open wounds on her cheeks, and so nasotracheal intubated with number six spiral intubation tube. During the operation, which lasted for three hours, the patient was hemodynamically stable and no bleeding was observed.

Conclusions: Animal bite injuries carries infection potential and esthetic consequences; debridement might reduce insidence of these consequences. Facial region is richly vascularized so proper wound management and pimer closure is possible. On the other hand facial injuries are challenging and difficult in terms of airway management. As in this case, the operation can be successfully completed by making rapid, serial and preoperative preparations and taking them into the operation.

Key words: airway management , anesthesiology , facial injury

References

1.Simao NR, Borba AM, da Silva ALF, Vieira EMM, Carvalhosa AA, Bandeca MC, Borges AH. Animal bite injuries to the face: A Case Report. J Int Oral Health 2013; 5(4): 68-72.

2.Essig GF, Sheehan CC, Niermeyer WL, Lopez JJ, Elmaraghy CA. Treatment of Facial Dog Bite Injuries in the Emergency Department Compared to the Operating Room. OTO Open. 2019;3(3). doi:10.1177/2473974X19858328.

Investigation of Tuberculosis Infection-Associated Spontaneous Pneumothorax; Case Series

Ertuğrul ALTUĞ[1]

[1] Basaksehir Cam and Sakura City Hospital, Emergency Department

Abstract

Introduction: The causative agent of tuberculosis, which is the leading cause of death due to respiratory tract infection in the world, is Mycobacterium Tuberculosis Bacillus. In 2003, it was reported that there were approximately 9 million new tuberculosis cases worldwide and it caused 1.7 million deaths. Generally, it is common in African countries. One of the complications of tuberculosis is pneumothorax.

Cases

Case-1: A 21-year-old male patient applied to our clinic with complaints of fever, chills and shortness of breath. He came to our country from abroad about 2 months ago. 4-drug therapy was started for tuberculosis. The patient was discharged from the hospital in a healthy condition after approximately 2.5 months.

Case-2: An 18-year-old male patient was brought to our clinic by ambulance with complaints of fever and dyspnea from the airport. The patient was traveling from Afghanistan. The patient's ARB test was positive. The patient was started on tuberculosis 4-drug therapy. The patient was discharged from the hospital approximately 1.5 months later.

Case-3: A 24-year-old male patient was admitted to our outpatient emergency department with fever and dyspnea. It was learned that the patient had a history of returning from abroad (Africa) about 10 days ago. 4-drug therapy was started for tuberculosis. Hatsa was discharged in approximately 55 days.

Conclusion: The travel history of patients who applied to the emergency department and were diagnosed with pneumothorax with the complaint of fever should be questioned and tuberculosis should not be forgotten in the differential diagnosis of fever. It should be kept in mind that the treatment of pneumothorax may take longer than normal.

Keywords: Tuberculosis, Pneumothorax, Treatment

Introduction: The presence of air in the pleural space is called pneumothorax. It is divided into two as traumatic or spontaneous. (1) Traumatic pneumothorax is pneumothorax that occurs as a result of blunt, penetrating or barotrauma, while spontaneous pneumothorax is pneumothorax that occurs without any external factor. (2) Spontaneous pneumothorax is classified as primary spontaneous pneumothorax (PSP) and secondary spontaneous pneumothorax (SSP). While PSP develops without any underlying cause, SSP has an underlying lung disease.

SSP usually occurs against the background of underlying lung disease. If there is a loss of pulmonary function in these patients, there are negative responses to interventions. (3)

The causative agent of tuberculosis, which is the leading cause of death due to respiratory tract infection in the world, is Mycobacterium Tuberculosis Bacillus. In 2003, it was reported that there were approximately 9 million new tuberculosis cases worldwide and it caused 1.7 million deaths. Generally, it is common in African countries. (4) The diagnosis of tuberculosis is based on the history of contact, clinical findings, sputum culture, examination, and chest X-ray findings. The definitive diagnosis is bacteriological. One of the complications of tuberculosis is pneumothorax. Patients with tuberculous pneumothorax usually need long-term drainage. (5,6)

Cases

Case-1: A 21-year-old male patient applied to our clinic with complaints of fever, chills and shortness of breath. The patient had no known history of comorbid disease and drug use. He came to our country from abroad about 2 months ago. The patient was hospitalized by a pulmonologist because of bilateral pneumothorax and pneumonia in the chest computed tomography of the chest. The ARB test sent from the patient was positive. The patient was started on bilateral thoracic tube and 4-drug therapy (Isoniazid + Rifampicin + Pyrazinamide + Ethambutol) for tuberculosis. The patient was discharged from the hospital in a healthy condition after approximately 2.5 months.

Case-2: An 18-year-old male patient was brought to our clinic by ambulance with complaints of fever and dyspnea from the airport. The patient had no history of comorbid disease and active drug use. The patient was traveling from Afghanistan. Vital signs of the patient; fever: 38.2, blood pressure: 110/60, heart rate: 110 and SpO2: 81. The patient was admitted to the intensive care unit because of the pneumothorax in the left hemithorax and the ground-glass appearance in the right hemithorax. The patient's PCR test was negative. Left thorax tube was applied to the patient. The patient's ARB test was positive. The patient was started on tuberculosis 4-drug therapy. The patient was discharged from the hospital approximately 1.5 months later.

Case-3: A 24-year-old male patient was admitted to our outpatient emergency department with fever and dyspnea. It was learned that the patient had a history of returning from abroad (Africa) about 10 days ago. At the patient's admission, his fever was 38.6, blood pressure: 110/62, heart rate: 98, SpO2: 92. There was a right pneumothorax appearance in the chest X-ray. Upon the patient's fever, the ARB test was sent and it was found to be positive. Thoracic tube was applied to the patient. 4-drug therapy was started for tuberculosis. Hatsa was discharged in approximately 55 days.

Discussion and Conclusion: Although tuberculosis is one of the most important respiratory tract infectious diseases in our country, the struggle began with the establishment of the Tuberculosis Fighting Association, which was first established in 1918. BCG vaccination campaigns in the 1950s reduced the prevalence of the infection. Thanks to the National Tuberculosis Control Program, which is successfully carried out in our country, a decrease in the number of patients is observed every year. The number of tuberculosis patients, which was 20,535 in 2005, decreased to 11,401 in 2019, 8,925 in 2020, and the incidence rate, which was 29.4 per 100,000 in 2005, decreased to 10.6 in 2020. Compared to 2005, there was a 56.5% decrease in the total case rate in 2020. (7) Lung involvement occurs in 65.7% of tuberculosis cases. One of the common complications of patients with lung involvement is pneumothorax. While PSP is most common between the ages of 15-34, SSP is higher in patients older than 55 years. (8) The ages of our cases were in their 20s, different from the literature.

Spontaneous pneumothorax in the tuberculosis patient occurs due to direct invasion into the pleural space and rupture of the lung parenchyma as a result of necrosis. (9) In a study involving 872 patients according to spontaneous pneumothorax treatment, the etiology was found to be tuberculosis in 5.4% of the patients. (10) It has been determined that 0.6-1.4% of patients with pulmonary tuberculosis will develop SSP during their treatment. (11,12) This rate is higher in regions where tuberculosis is endemic. All 3 of our cases have recent endemic travel histories.

The primary step of tuberculosis treatment is preventive measures. For this reason, there is a BCG vaccine in the childhood vaccination calendar. (4,13) In the first 2 months, when the bactericidal efficacy is the highest and the drug resistance is the least, 4 drugs are used as the initial treatment. These drugs are Isoniazid + Rifampicin + Pyrazinamide + Ethambutol. In the maintenance period treatment, sterilization takes place. This period usually lasts 4 months. (4,13) In our 3 cases, 4 drug combination treatments were applied.

Drainage takes a long time in the treatment of patients who develop pneumothorax as a result of tuberculosis. (5,6) In our 3 cases, the pneumothorax expansion period took a long time.

As a result, the travel history of the patients who applied to the emergency department and were diagnosed with

pneumothorax with the complaint of fever should be questioned and tuberculosis should not be forgotten in the differential diagnosis of fever. It should be kept in mind that the treatment of pneumothorax may take longer than normal.

References

1. Primrose WR. Spontaneous pneumothorax: A retrospective review of aetiology, pathogenesis and management. Scott Med J 1984;29:1520.

2. Schramel FM, Postmus PE, Vanderschueren RG. Current aspects of spontaneous pneumothorax. Eur Respir J 1997;10:13729.

3. Bintcliffe O, Maskell N. Spontaneous pneumothorax. Br Med J 2014;348.

4. Rakel, Robert E. & Rakel, David P. (2019). Aile Hekimliği. (Esra Saatçı, Çev. Ed.). Ankara: Güneş Tıp Kitebevi

5. Ben SS, Melki B, El Gharbi LD, Soraya F, Chaouch N, Aouina H, *et al*. [Tuberculous pneumothorax: Diagnosis and treatment]. Rev Pneumol Clin 2018;74:818.

6. Singh SK, Tiwari KK. Analysis of clinical and radiological features of tuberculosis associated pneumothorax. Indian J Tuberc 2019;66:348.

7. T.C. Sağlık Bakanlığı, Halk Sağlığı Genel Müdürlüğü, Tüberküloz Daire Başkanlığı. Türkiye'de Verem Savaşı 2020 raporu. (2020). https://hsgm.saglik.gov.tr/tr/tuberkuloz-anasayfa.html.

8. Gupta D, Hansell A, Nichols T, et al. Epidemiology of pneumothorax in England. Thorax 2000;55(8):666–71.

9. Light RW, Lee YCG. Pneumothorax in adults: epidemiology and etiology. In: UpToDate (proceedings), Light RW (Ed), UpToDate, Waltham, MA. 2020.

10. Freixinet JL, Caminero JA, Marchena J, et al. Spontaneous pneumothorax and tuberculosis: long-term follow-up. Eur Respir J 2011;38(1):126–31.

11. Ihm HJ, Hankins JR, Miller JE, et al. Pneumothorax associated with pulmonary tuberculosis. J Thorac Cardiovasc Surg 1972;64(2):211–9.

12. Blanco-Perez J, Bordo´n J, Pi L, et al. Pneumothorax in active pulmonary tuberculosis: resurgence of an old complication? Respir Med 1998;92(11):1269–73.

13. Kara F. (2019). Tüberküloz tanı ve tedavi rehberi (2). Ankara: T.C. Sağlık Bakanlığı.

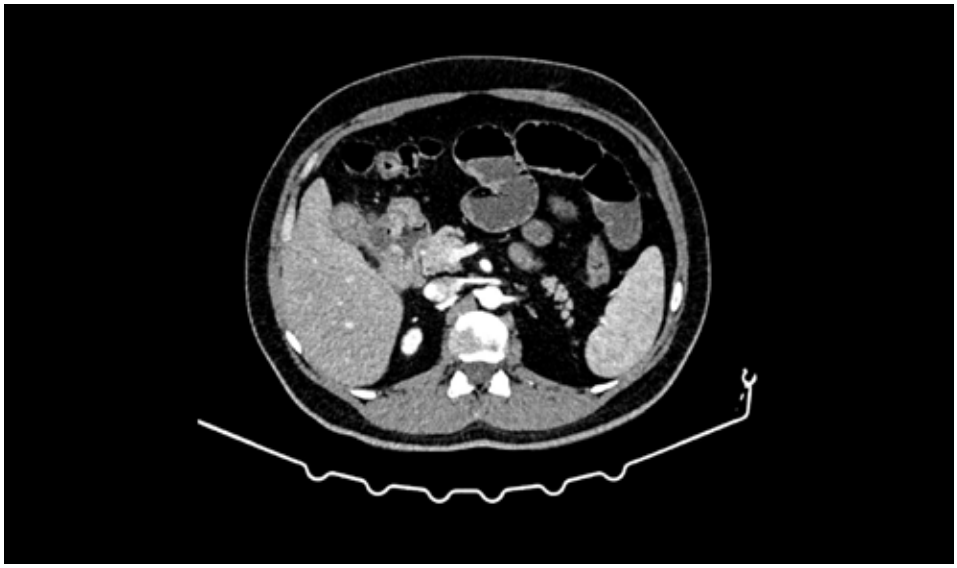
A Rare Cause Of Ileus : Gallstones

Sevilay Biyikli[1] , Murside Yayli[1] , Gulizar Kacar[1] , Nedim Uzun[1] , Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background and aim: Gallstone ileus is when one or more gallstones are impacted in thegastrointestinal tract between the stomach and rectum and cause obstruction.It usually passes through a bilioenteric fistula that develops as a result of recurrent cholecystitis.Fistula localizations are listed as cholecystoduodenal (76%), cholecystocolic (11%), cholecystogastric (6%),choledochoduodenal (4%), cholecystocholedochal (3%) according to the frequency of occurrence.Gallstone ileus is seen in 0.3-0.5% of all cholelithiasis cases.Intestinal obstruction is usually seen when the stone is over 2.5 cm.It is mortal with a rate of approximately 15% due to advanced age, co-morbidities and delay in diagnosis.

Case: A 42-year-old male patient applied to our emergency department with complaints of nausea,bilious vomiting, and abdominal pain.The patient without chronic disease had cholelithiasis for 4 years, but was not followed up.Examination revealed diffuse abdominal tenderness, defense and rebound.Vital values were normal.There was spontaneous gas-stool discharge.Upon detection of CRP: 86 mg/L and WBC with neutrophil dominance: 17,680 mcL in laboratory examinations, iv contrast-enhanced abdominal CT was requested.The report of the CT ; Calculus was observed in the lumen of the gallbladder, and the wall of the bladder was diffusely thickened (stony cholecystitis).No cleavage was observed between the gallbladder and duodenum, and a fistula tract was observed between the gallbladder and duodenum.At the jejunum - ileum junction, an appearance of gallstonesis observed in the intestinal lumen, and an appearance compatible with gallstone ileus is present at the proximal part of this level.Oral intake of the patient was stopped, intravenous hydration was started.The patient was admitted to the general surgery service with the diagnosis of ileus due to gallstones.Enterotomy and gallstone extraction were performed after hospitalization in the general surgery service.



Conclusions: Although gallstone ileus is a rare cause of small bowel obstruction, it constitutes 1-4%of all mechanical obstructions.Gallbladder pathologies should definitely be questioned in the anamnesis of ileus patients. Diagnostic imaging plays an important role in the management of patients with suspected gallstone ileus, as early diagnosis can reduce mortality.Abdominal Computed Tomography is the preferred method because it provides rapid diagnosis.Surgery remains the goldstandard treatment.

References:

https://dergipark.org.tr/tr/download/article-file/265222

https://pubmed.ncbi.nlm.nih.gov/28433486/#affiliation-3

https://www.eajm.org/content/files/sayilar/142/buyuk/pdf_EAJM_79.pdf

https://www.turkcerrahi.com/makaleler/safra-kesesi-ve-safra-yollari/safra-tasi-ileusu/

IS PEDIATRIC HEAD TRAUMA CAUSE OR EFFECT?: A CASE REPORT

Ahmet Akif Durak[1], Oğuzhan Oğuz[1], Hakan Oğuztürk[1], Özgür Hakan Büyükpoyraz[1], Gülseven Yıldırım[1]

[1]Emergency Medicine Department, Ankara Şehir Hastanesi, Ankara, Turkey

Abstract: We usually evaluate mechanical traumas in head traumas in our daily practice. Head trauma secondary to cardiological, neurological and metabolic causes is less common. Our case is a one year old male patient applied to emergency service after falling from the chair the day before. After the examination, a preliminary diagnosis of ischemic stroke was made and he was hospitalized in the pediatric service for further examination and treatment.

Inroduction: Pediatric head trauma is the most common cause of morbidity and mortality in this age group. The most common causes are falls, child maltreatment and motor vehicle accidents. While cardiac, neurological and metabolic causes are investigated in elderly patients who present to the emergency department for head trauma, they are ignored in pediatric patients.

Case Report: A one year old male patient applied to the emergency service after falling from a height of 50 cm on his left side the previous day. On physical examination, hemiparesis in the left upper and lower extremities and effacement of the left nasolabial sulcus are present. He seems unable to maintain his balance while standing unassisted. Vital signs are in the age appropriate range. Brain tomography, cervical and extremity two sided radiographs are taken. No acute pathology is detected. Neurosurgery and pediatrics consultation is requested. Since no acute surgical pathology was detected by neurosurgery, outpatient control is recommended for cervical MRI planning. He was hospitalized in the pediatric service for further examination. Diffusion MRI taken in the service: "An area of 17x15 mm diffusion restriction (infarct?) in the periventricular area on the right, in the body part of the caudate nucleus, extending to the levels of the internal capsule and globus pallidus inferiorly." Pediatric neurology, cardiology and hematology consultations are made for etiology research. The patient was discharged after 14 days of hospitalization and investigations for the etiology of ischemic stroke continue.

Discussion: Although traumatic pathology was detected in our sample case, when secondary causes were investigated with discordant physical examination findings, it was determined that he had a head trauma due to ischemic stroke. In the literature, we see that the diagnosis of ischemic stroke in pediatric patients is rare. In the Swedish National Registry study conducted by Sundelin et al., 1220 pediatric patients diagnosed with ischemic stroke between 1969 and 2016 were identified. In the study conducted by Uzunhan et al. among 53 pediatric patients who were admitted to the Istanbul University Pediatric Neurology study between 2007 and 2013, 33 ischemic stroke, 12 hemorrhagic stroke, and 8 sinus vein thrombosis were diagnosed. Of the patients diagnosed with ischemic stroke, 15 were diagnosed with prothrombotic risk factors, 1 was cardiomyopathy, and 1 was vasculitis.

In terms of emergency medicine, it should not be overlooked that there may be secondary reasons in pediatric patients in cases of trauma. Department consultation should be made regarding possible preliminary diagnoses and if necessary hospitalization or referral to advanced centers should be provided for further examination.

Keywords: Pediatric trauma, Stroke, Hemiparesis

References:

1. Sundelin HEK, Tomson T, Zelano J, Söderling J, Bang P, Ludvigsson JF. Pediatric Ischemic Stroke and Epilepsy:

A Nationwide Cohort Study. Stroke. 2021 Nov;52(11):3532-3540. doi: 10.1161/STROKEAHA.121.034796. Epub 2021 Sep 2. PMID: 34470493.

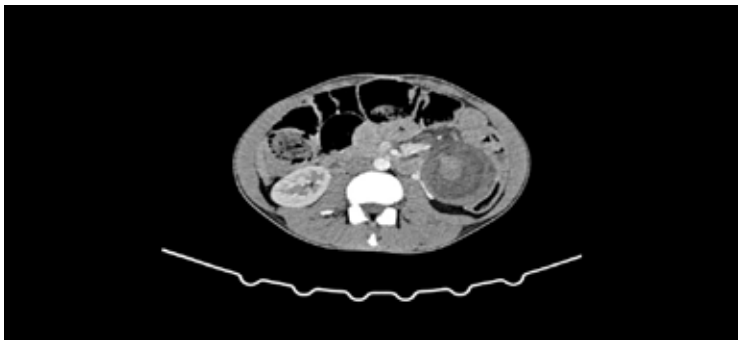
2. Uzunhan TA, Aydinli N, Çalişkan M, Tatli B, Özmen M. Short-term neurological outcomes in ischemic and hemorrhagic pediatric stroke. Pediatr Int. 2019 Feb;61(2):166-174. doi: 10.1111/ped.13737. PMID: 30449056.

A RARE CASE IN ADULTS: INTUSSESCEPTION

Sevilay Biyikli[1] , Gokhan Cabar[1] , Murside Yayli[1] , Ozge Kocak[1] , Mustafa Calik[1]
[1]Gazıosmanpasa Traınıng And Research Hospıtal

Background and aim: Intussusception is a clinical condition characterized by the penetration of the proximal bowel segment into the distal segment.They can occur subacute or chronically in adults.The most common admission to the emergency department is abdominal pain, nausea, vomiting and inability to pass gas and stool, are also common.

Case: A 21-year-old male patient was admitted to our emergency clinic with the complaint of abdominal pain that had been going on for a week.It was learned that the patient who had nausea and vomiting did not have gas-fecal discharge for three days.He has no known chronic disease. He had an operation 10 years ago, the details of which are unknown.(caused by gastric polyps?) It was learned that her father and older sister had Peutz Jeghers Syndrome.The patient's vital signs were normal.There was widespread distension and tenderness in the abdominal examination and there was no defense or rebound.In laboratory tests, neutrophil-dominated leukocytosis and hypochromic anemia were present.On the rectal examination, the ampulla was empty In patient's abdominal CT, nested bowel loops were observed along a 5.5 cm segment in the distal jejunal loops.(İntussusception?) A nasogastrictube was inserted, oral intake was stopped, intravenous hydration was started.The patient wasadmitted to the general surgery service with the diagnosis of intussusception. In the secondabdominal CT, there were multiple polyps in the jejunum and duodenum, some of which were gigantic.There was intussusception in a total of three regions.Segmentary jejunum resection was performed.Multiple polyps were seen in the entire stomach on endoscopy.Pathology tests revealed one hamartomatous,two infarcted and transmural polyps in the small intestine.Considering the family history, clinical evaluation for Peutz Jeghers Syndrome was recommended.Genetic tests were planned.



Conclusions: Intestinal intussusception is rare in adults,and 70-90% of them develop secondary to an underlying pathological anomaly.Hereditary intestinal polyposis and PJS should also be considered. Intussusception is a serious complication, and delay in diagnosis and treatment can cause perforation that threatens the patient's life.Intussusception should be considered in patients presenting to the emergency department with abdominal pain of unknown etiology.It should be noted that CT will provide high accuracy in diagnosis.

References

https://dergipark.org.tr/tr/download/article-file/38746
https://jag.journalagent.com/vtd/pdfs/VTD_22_1_14_18.pdf
https://pubmed.ncbi.nlm.nih.gov/21110166/
https://pubmed.ncbi.nlm.nih.gov/25192846/

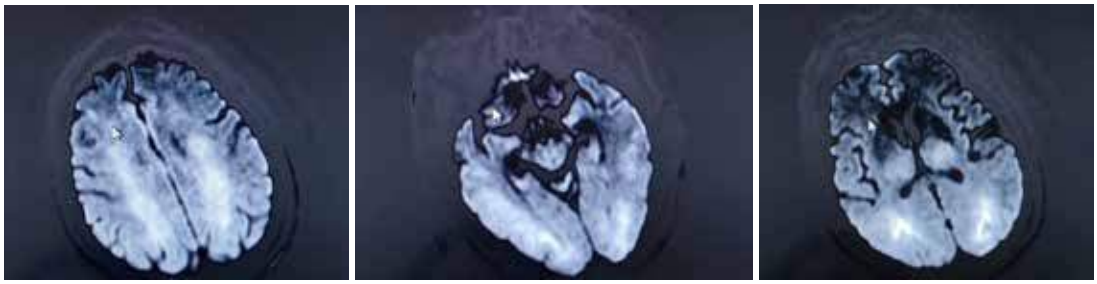
POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME (PRES)

Enad Kenan

Giriş

Posterior reversible encephalopathy syndrome (PRES) is an clinical radiological situation characterized by headache, altered mental status, seizures, visual disturbances, and focal neurological signs. The most common etiologies of PRES are hypertension and renal failure, and the most frequent pathophysiology is hyperperfusion. PRES is generally symmetrical, often in the occipital and parietal lobes, and is typically characterized by vasogenic edema in the subcortical white matter (1). In this report, a case with PRES is reported.

Case



A 73-year-old male patient was brought to the emergency department by his relatives with the complaints of blurred consciousness and tremor in the right arm. He had known lung cancer, hypertension and chronic renal failure diseases. The patient had a Glasgow Coma Scale of 13 and had a focal seizure in the right arm. His blood pressure was 220/120 mmHg, SPO2: 95%, pulse: 77/minute, blood glucose 162 mg/dl, fever: 36 degrees Celsius. The patient's focal seizure stopped after intravenous administration of 5 mg of diazepam. Antihypertensive treatment was started and central imaging was performed for differential diagnosis. There was no pathological image in the patient's brain computed tomography. There were bilateral hyperintense areas in the parietooccipital areas on diffusion-weighted magnetic resonance imaging. ADC sections did not have hypointense counterparts. The patient was found to have posterior reversible encephalopathy syndrome and was admitted to the Neurology service.

Discussion

Early recognition of PRES is important for timely institution of therapy, which typically consists of gradual blood pressure control and withdrawal of potentially offending agents. Although reversible by definition, secondary complications, such as status epilepticus (SE), intracranial hemorrhage, and massive ischemic infarction, can cause substantial morbidity and mortality (2). With this case report, it is aimed to keep in mind that patients who come to the emergency department with confusion and seizures may be a rare PRES.

References

1. Yigit M, Yigit E, Turkdogan KA. Posterior Reversible Encephalopathy Syndrome in the Emergency Service. Niger J Clin Pract 2018;21:248-50.

2. Fugate JE, Claassen DO, Cloft HJ, Kallmes DF, Kozak OS, Rabinstein AA, et al. Posterior reversible encephalopathy syndrome: Associated clinical and radiologic findings. Mayo Clin Proc 2010;85:427-32.

IN SUBBACUTE ISCHEMIC CEREBROVASCULAR DISEASE

PSEUDO ECG FINDING

Hüseyin Gürbüz

Introduction: Cerebrovascular diseases (CVD) are defined as neurological deficits due to ischemic or hemorrhagic causes, and it is a highly heterogeneous disease in terms of causes and results. Approximately 85% of it is ischemic and 15% is due to hemorrhagic causes (1).

Case: A 71-year-old male patient applied to us with the complaints of dizziness and nausea for about 10 hours. He has a history of diabetes and a previous history of hemorrhagic LVH. T.A was measured as 150/80 mm/Hg, Pulse: 75/min, Spo2: 97%, Fever: 36.8 C. His general condition was good, he was conscious, oriented and cooperative. Physical examination revealed a strength of 4/5 in the right extremities and tremor in the right arm (ex-LVH sequela). No pathology was detected in other system examinations. Torsades de pointes/ ventricular fibrillation/ atrial flutter were detected on ECG. (Figure 1) No acute pathology was detected in the brain computed tomography imaging. The patient, who had diffusion restriction in the left posterior parietal region on cranial diffusion MRI, was admitted to the neurology clinic with the diagnosis of subacute ischemic LVH.

Discussion: About 16 million people in the world have a stroke every year. Stroke is the second leading cause of death in the population over 60 years of age. In our country, deaths due to stroke take the second place after cardiovascular diseases (2). While the non-modifiable risk factors of stroke include age, gender, race, and genetic factors, many modifiable risk factors include hyperlipidemia, hypertension, diabetes, atrial arrhythmias, and smoking (3). In our case, advanced age, male gender, and pseudo ECG rhythms secondary to rhythmic tremor were risk factors. Clinic in stroke patients; It may occur prominently such as weakness in the extremities, facial paralysis, speech disorder, or it may progress with very subtle symptoms such as weakness and dizziness (4). In our case, the clinic did not occur clearly.

Conclusion: In conclusion, pseudo ECG rhythms may be among the LVH findings in elderly patients. In order to avoid unnecessary treatment and intervention, care should be taken in ECG evaluation in patients with tremor.

References

1) Writing Group M, Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, et al. Heart Disease and Stroke Statistics-2016 Update: A Report From the American Heart Association. Circulation 2016; 133: e38-60

2) Şahin, A. D., Yusuf, Ü. S. T. Ü., & Derya, I. Ş. I. K. (2015). Serebrovasküler hastalıklarda önlenebilen risk faktörlerinin yönetimi. Ankara medical journal, 15(2).

3) Boehme, A. K., Esenwa, C., & Elkind, M. S. (2017). Stroke risk factors, genetics, and prevention. Circulation research, 120(3), 472-495.

4) Go S, (2020) Stroke Syndromes. Judith E. Tintinalli (Ed.) Tintinalli's Emergency Medicine A Comprehensive Study Guide (9th ed., pp, 1119-1136). New York: Mcgraw-Hill Education.

ERİŞKİN ACİL SERVİSTE ÇALIŞAN SAĞLIK ÇALIŞANLARININ İŞE BAĞLI STRES DÜZEYLERİNİN SİGARA BIRAKMA DAVRANIŞI ÜZERİNE ETKİSİ

Nursena ALAGÖZ*, İnan Can GÜNDÜZ*, Demet DUMAN*, Veysel SILTAĞ*

*Başakşehir Çam ve Sakura Şehir Hastanesi, İstanbul

*Marmaraereğlisi İlçe Devlet Hastanesi, Tekirdağ

*Başakşehir Çam ve Sakura Şehir Hastanesi, İstanbul

*Başakşehir Çam ve Sakura Şehir Hastanesi, İstanbul

Giriş-Amaç: Tüm dünyada önlenebilir mortalite ve morbiditenin ilk sebeplerinden birisi olan sigara kullanımı, yaşamın tüm evrelerinde birçok sağlık problemine sebep olan ciddi bir halk sağlığı sorunudur. Stres de sigara içmeyle sebep olan bir psikolojik etmendir. Kişiler stres durumunu azaltarak çevreye uyumlu hale gelebilmek, sakinlemek için sigaraya başvurmaktadır. Bu çalışmada erişkin acil servis de çalışan sağlık çalışanlarının sigara bırakma davranışları ile iş stresi arasındaki ilişkinin incelenmesi amaçlanmıştır.

Gereç- Yöntem: Tanımlayıcı –kesitsel olarak planlanan çalışma bir şehir hastanesini erişkin acil servisinde Haziran 2022 – Ağustos 2022 tarihleri aralığında online anket yöntemi ile sigara içen 135 sağlık personelinden toplanmıştır. Verilerin toplanmasında araştırmacılar tarafından Google Forms aracılığı ile hazırlanan 15 maddelik Tanıtıcı Bilgi Formu, Sigara Bırakma Davranışı Sağlık İnanç Modeli Ölçeği (SBD-SİM ölçeği) ve A İş Stresi Ölçeği-20 kullanılmıştır. Verilerin analizi SPSS 22.0 istatistik programı aracılığıyla değerlendirilmiştir. Araştırmaya katılan çalışanların tanımlayıcı özelliklerinin belirlenmesinde frekans ve yüzde analizlerinden, ölçeğin incelenmesinde ortalama ve standart sapma istatistiklerinden faydalanılmıştır. Araştırma değişkenlerinin normal dağılım gösterip göstermediğini belirlemek üzere Kurtosis (Basıklık) ve Skewness (Çarpıklık) değerleri incelenmiştir. Çalışanların ölçek düzeylerini belirleyen boyutlar arasındaki ilişkiler pearson korelasyon ve lineer regresyon analizleri aracılığıyla incelenmiştir.

Bulgular: Araştırmaya katılan sağlık çalışanları yaşa göre 67'si (%49,6) 25-30, 75'i (%55,6) kadın, 94'ü (%69,6) bekar, 63'ü (%46,7) gelir gidere eşit, klinikte isteyerek çalışma durumuna göre 89'u (%65,9) evet, günlük içilen sigara adedine göre 56'sı (%41,5) 20 adet ve üzeri, mesleği stresli bulma durumuna göre 108'i (%80,0) evet, sigara içme nedenine göre 70'i (%51,9) sıkıntılarımı hafifletmek için olduğunu belirtmiştir. İş stresi ile yarar algısı arasındaki neden sonuç ilişkisini belirlemek üzere yapılan regresyon analizi anlamlı bulunmuştur ($F=9,622$; $p=0,002<0.05$). Yarar algısı düzeyindeki toplam değişim %6 oranında iş stresi tarafından açıklanmaktadır ($R^2=0,060$). İş stresi yarar algısı düzeyini arttırmaktadır ($ß=0,095$). Çalışanların iş stresi puanları gelir durumuna göre anlamlı farklılık göstermektedir ($F=4,401$; $p=0.014<0.05$; $\eta^2=0,063$). Çalışanların engel algısı puanları sigara içmeye başlama nedenine göre anlamlı farklılık göstermektedir ($F=9,307$; $p=0<0.05$; $\eta^2=0,176$).

Sonuç: Sağlık çalışanları ile yapılan bu çalışmada, kadın sağlık çalışanlarının erkek sağlık çalışanlarına göre sigara kullanımının daha yüksek oranda olduğu saptanmıştır. Sigara bırakma davranışı ile iş stresi arasında anlamlı bir ilişki bulunamamıştır. Araştırma kapsamında incelenen değişkenlerin, elde edilen sonuçların sigara bağımlılığı çalışmalarına ciddi bir katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Sigara, Stres, Sağlık Personeli,

AN ACUTE PANCREATITIS CASE

Doç. Dr. Avni Uygar SEYHAN, Doç. Dr. Rohat AK, Doç. Dr. Nihat Mujdat HOKENEK, Dr. Öğr. Uyesi Erdal YILMAZ, Ass. Dr. Asya Yagmur KARAKUCUK.

INTRODUCTION: Acute pancreatitis is one of the most common gastrointestinal causes of hospitalization. Although there are many medical advances about the treatment and management, the mortality and morbidity of pancreatitis cases are preserved to be substantial. Gallstones and alcohol consumption are two of the common causes. Hyperlipidemia, hypercalcemia, hyperparathyroidism, structural abnormalities, abdominal trauma, some of the drugs and infections, iatrogenic events can be added as well. Despite the multiple scoring systems, diagnosis of acute pancreatitis can be established with any two of the three following criteria; 1. Abdominal pain which is generally described as belt-like, epigastric pain, 2. Serum amylase and/or lipase increase greater than three times the upper limit of normal level. 3. Radiologic findings referring to AP.

The management of patients with highly- suspicious AP include agressive intravenous hydration and appropiate pain management. ERCP, endoscopic retrograde cholangiopancreatography, and surgery have crucial part in the management of acute gallstone pancreatitis. The aim of this case report is to present an AP patient with her clinic features and management.

CASE: A 49 year old female patient was admitted to our emercency department with abdominal pain. In her medical history, the pain started that day after having lunch and nausea was the concomitant symptom. There is no known disease or routine drug usage or any complain that can lead to an infection. Her vital signs on admission were written in the following paraphragh.

SBP: 138 and DBP 79 mmHg, Pulse: 70, Body Temperature: 36.5 C Oxygen Saturation: 98 %. Her ECG was in normal sinus rhythm. In her physical examination, there was an epigastric defence tenderness without rebounding. Other system examinations were quite normal. Laboratuary findings illustrated that there was an three to four times increase in liver enzymes; AST:143 and ALT 113 U/L , slightly – rised direct bilirubin level: 0.35 mg/dl without an increase in total bilirubin. Amylase level was measured as 2220 U/L which is a significant rise. There was no leukocytosis, acute phase reactant positivity or electrolyte imbalance. For radiological proof, patient was referred to ultrasound firstly. Some milimetrical gallstones and sludge were reported with a 2 cm measured cyst in liver parenchyme with anechoic features. Pancreas was not evaluated due to gase artefact. After the normal renal function tests were seen, computerized tomography with contrast was ordered. CT revealed tha the patient was clearly an acute pancreatitis case with the view of a messy area especially around the tail of pancreas and retroperitoneal free fluid accumilation.

Due to the first examination and the ultrasound report, intravenous hydration and pain management were already started and the patient was informed to stop her oral intake. 1700 cc isotonic solution was given in the first 1.5 hour from the admission. After the lab results were checked, patient was consultated to general surgery department for further treatment options.

Figure 1: messy peripancreatic area, CT view

The Perforated Duodenal Diverticulum; A case report

Yavuz Yılmaz, Banu Arslan

Çam and Sakura city hospital Emergency Medicine Istanbul

Objective; Duodenal diverticulum is a relatively common gastrointestinal (GI) tract pathology, however perforation of the diverticulum is rare and can lead to severe complications such as intra-abdominal abscess, sepsis, and septic shock, as well as death if left untreated.

Case presentation

The patient was a 30-year-old male with increasing abdominal pain that had been going on for ten days. Throughout the 10-day period, he visited three different emergency departments with no relief. Since the pain had been gradually increasing, he was admitted to our emergency department. The patient also reported nausea, vomiting, trouble with passing gas and stool, and a high fever.

The vital signs were blood pressure of 103/75 mmHg, heart rate of 89 beats/min, body temperature; of 37.8° C, and respiratory rate of 18 beats/min.

Blood test results revealed that WBC 12.01 $10^3/\mu L$, CRP 5 mg/l. procalcitonin (PCT) level 0.5 ng/mL.

Blood test 1

WBC	Onaylandı	12.01		10^9/L	3.91	10.9
RBC	Onaylandı	5.06		10^12/L	4.44	5.61
HGB	Onaylandı	14.9		g/dL	11.9	15.4
HCT	Onaylandı	41.2		%	40	49.4
MCV	Onaylandı	81.4		fL	80	93.6
MCHC	Onaylandı	36.2		g/dL	31.9	34.8
PLT	Onaylandı	437		10^9/L	150	450
MPV	Onaylandı	10		fL	9.3	12.1
PCT	Onaylandı	0.43		%	0.17	0.32
PDW	Onaylandı	10.8		fL	9.3	14.3
NEU#	Onaylandı	9.23		10^9/L	1.8	6.98
LYM#	Onaylandı	1.73		10^9/L	1.26	3.35
MON#	Onaylandı	0.98		10^9/L	0.29	0.95
EOS#	Onaylandı	0.04		10^9/L	0.03	0.59
BAS#	Onaylandı	0.03		10^9/L	0.01	0.07
NEU%	Onaylandı	76.9		%	41	70.7
LYM%	Onaylandı	14.4		%	19.1	47.9
MON%	Onaylandı	8.2		%	5.2	15.2
EOS%	Onaylandı	0.3		%	0.6	7.9
BAS%	Onaylandı	0.2		%	0.1	1.2
RDW-CV	Onaylandı	11.7		%	12.4	15.1
RDW-SD	Onaylandı	33.8		fL	37.8	46.1
MCH	Onaylandı	29.4		pg	26.5	31.4
P-LCR	Onaylandı	24.2			17.9	43.7
MACRO#	Onaylandı	4.5		%	4	10
MICRO#	Onaylandı	2.6		%	0.2	1.9
IG#	Onaylandı	0.05		10^9/L	0.01	0.03
IG%	Onaylandı	0.4		%		

Blood test 2

CRP,türbidimetrik	Onaylandı	5	✓	mg/L	0	5
Glukoz	Onaylandı	127	✓	mg/dL	74	106
Üre	Onaylandı	37.1	✓	mg/dL	13	43
Kreatinin	Onaylandı	0,82	✓	mg/dL	0,7	1,2
e-GFR	Onaylandı	119	✓			
Ürik asit	Onaylandı	4.1	✓	mg/dL	3.4	7
Sodyum (Na)	Onaylandı	137	✓	mEq/L	136	146
Potasyum (K)	Onaylandı	3.23	✓	mEq/L	3.5	5.1
Klor (Cl)	Onaylandı	98	✓	mEq/L	98	106
Kalsiyum (Ca)	Onaylandı	9.05	✓	mg/dL	8.6	10
Total Protein	Onaylandı	80	✓	g/L	64	83
Albumin	Onaylandı	49	✓	g/L	35	52
Globulin	Onaylandı	31	✓	g/L	26	46
Total Bilirubin	Onaylandı	0,65	✓	mg/dL	0	1,2
Direkt Bilirubin	Onaylandı	0,24	✓	mg/dL	0	0,3
İndirekt Bilirubin	Onaylandı	0,41	✓	mg/dL		
ALT	Onaylandı	15	✓	U/L	0	50
AST	Onaylandı	21	✓	U/L	10	50
ALP	Onaylandı	98	✓	U/L	40	129
GGT	Onaylandı	20	✓	U/L	8	61
LDH	Onaylandı	300	✓	U/L	0	250
CK	Onaylandı	100	✓	U/L	0	190
Amilaz	Onaylandı	53	✓	U/L	28	100
Lipaz	Onaylandı	14	✓	U/L	13	60

3-ecg

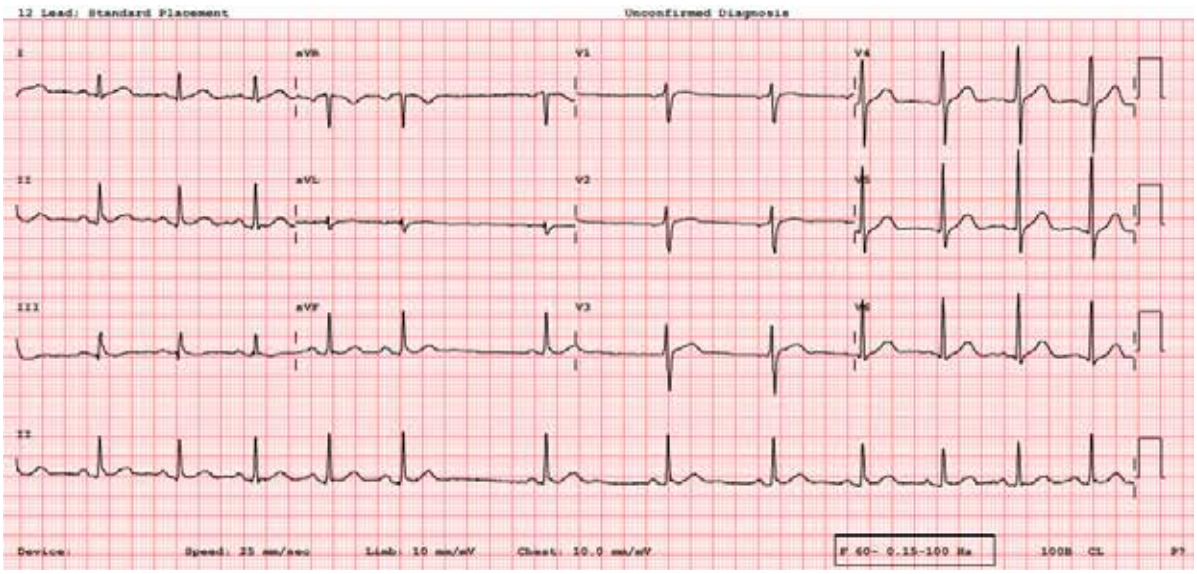
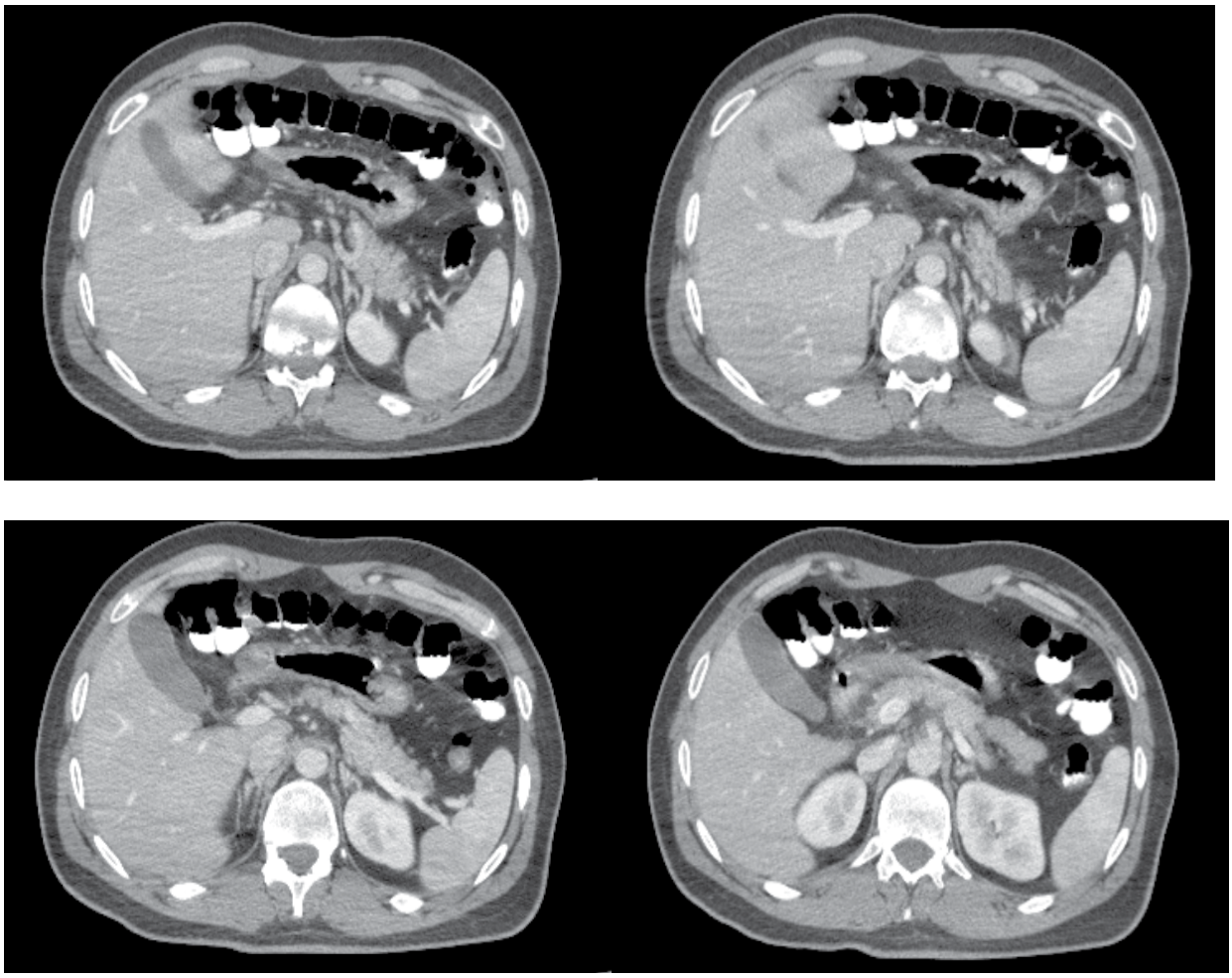


Figure 1; The CT scan of the abdomen showed increased wall thickness in the proximal gastric antrum-duodenum and heterogeneity in surrounding fatty tissues. Diverticulitis with air density within the duodenal diverticulum. The perforation of the duodenal ulcer.

Figure1



Conclusion; In the U.S., around 200,000 patients are hospitalized for diverticulitis every year, however the majority are uncomplicated or self-limiting. Approximately 5-10% of patients with diverticulitis present with bleeding, perforation, and abscess. Delay in treatment can be the primary cause of morbidity and mortality.

In case of perforation, surgical or conservative treatment can be performed. For our patient, conservative treatment was selected. The patient was discharged after a 7-days of hospitalization with no complications during the hospital stay.

Timely diagnosis and the most appropriate treatment are vital to prevent sepsis, septic shock, and death.

Keywords; duedenal diverticulitis, diverticulitis perforation, diverticulitis abcess

References

1. Bharucha AE, Parthasarathy G, Ditah I, et al. Temporal trends in diverticulitis incidence and natural history: a population-based study. I am J Gastroenterol. 2015;110(11):1589-1596. doi: 10.1038/ajg.2015.302 PubMedGoogle Scholarcross-reference

2. Peery AF, Dellon ES, Lund J, et al. Gastrointestinal disease burden in the United States: 2012 update. Gastroenterology. 2012;143(5):1179-1187. doi:10.1053/j.gastro.2012.08.002 PubMedGoogle Scholarcross-reference

3. Humes DJ, Solaymani-Dodaran M, Fleming KM, Simpson J, Spiller RC, West J. A population-based study on the incidence of perforated diverticular disease and associated mortality. Gastroenterology. 2009;136(4):1198-1205. doi:10.1053/j.gastro.2008.12.054 PubMedGoogle Scholarcross-reference

4. Klarenbeek BR, Samuels M, van der Wal MA, van der Peet DL, Meijerink WJ, Cuesta MA. Indications for elective sigmoid resection in diverticular disease. Ann Surg . 2010;251(4)

COCAINE USE WITH UNSTABLE ANGINA

Halil İbrahim Atalay[1], Mustafa Çetin[2]

[1]Kirsehir Training and Research Hospital, Department of Emergency Medicine

[2]Hitit University Erol Olçok Training and Research Hospital, Department of Internal Medicine

Introduction: Cocaine is extracted from coca plant leaves, known as strong sympathomimetic and commonly used drug abuse. Cocaine stimulates central nerveous and cardiovascular system, could cause a number of complaints(1). In this case report we want to present unstable angina after cocaine use.

Case Report: 33 years old male patient admitted to emergency department with chest pain, dyspnea and ajitation. The patient has no prior illnesses including coronary artery disease and had confessed to use of cocain. Vital signs were; pulse 107 beats/per minute, respiration rate 25/per minute, blood pressure and oxygen saturation were normal. Patient was diaphoretic and anxietic. Pyhsical examination were normal. Electrocardiogram(ECG) findings showed tachicardia, infero-lateral st segment depression, anterior hyperacute t wave findings. Patient's blood samples were obtained for complete blood count, liver and renal functions, electrolites and troponin level. Diazepam 5 mg administered from intravenous access. 30 seconds after diazepam; sweating, ajijtation and tachicardia resolved. Control ECG was normal sinus rhythm and has no st segment changing. Patients first and second laboratory results icluding troponin levels were normal. Cardiology consultation was performed and coronary angiography was advised because of recurrent cocaine use. Patient was admitted to cardiology clinic for further evaluation of coronary artery angiography. Coronary arteries were found normal and it's thought that the ECG findings related to cocain use. Patient discharded from hospital with a healty condition two days after angiography.

Conclusion: Cocaine toxicity is member of stimulant toxicity family like phencyclidine and amphetamine. Cocaine inhibits reuptake of noradrenalin ve blocks sodium ion channels(2). It is known as a party drug, stimulates whole nervous system and could cause agitation, hypertension, tachycardia, hyperthermia, dysrhythmias, ischaemia, dyspnea due to pulmary infarction or pulmonary injury, seizures, dissections, intracerebral heamorrhage and cerebral oedema(1,3).

Apmhetamine abuse, phencyclidine abuse, hypoglycemia,hypoxia, alcohol withdrawal, serotonin syndrome, neuroleptic malign syndrome, heat stroke, thyroid storm, subarachnoid hemorrage, meningitis, encephalitis, seizures and several psychiatric diseases should be considered in the differental diagnosis.

The majority of these diagnoses are determined from the patient's medical history. A review of the patient's medications and a detailed history through family, friends, and first-responders, may provide valuable clues.

The primary treatment are benzodiazepins. Disrhythmias should be treated with sodium bicarbonate. If ventricular tachicardia is refractory lidocain should be given. Supraventricular tachicardia treatment should contain benzodiazepins, verapamil, adenosin and if patient is unstable: cardioversion. Beta blockers are contraindicated because of unmet alpha blockage(1,4).

Patients who present with psychomotor agitation, hyperthermia, or other neurological complications of cocaine toxicity may require admission for monitoring and management of sequelae. If after 6 to 8 hours of observation their symptoms are completely resolved, they are awake, alert and their reexamination reveals no concerning findings, they may discharged. Our patient had adminestered benzodiazepin and all the symptoms were revealed. But the history of repatead use of cocaine caused performing of coronary angiography. At the end of treatment patient has no cardiologic and neurologic affection and sequela.

Image 1 (ECG of the patient at the time of admission-extremity derivations)

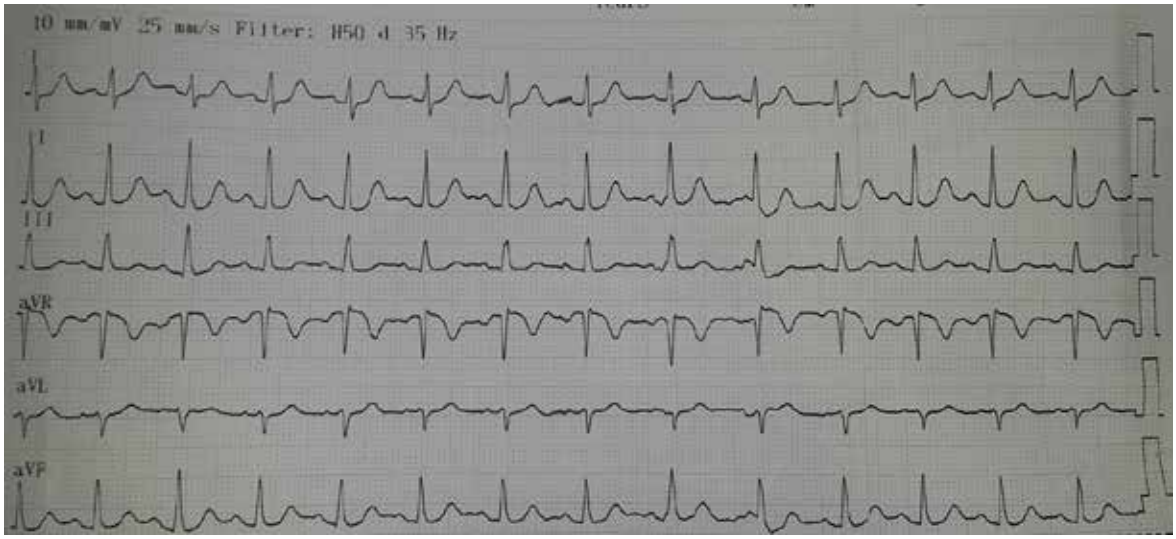


Image 2 (ECG of the patient at the time of admission-chest derivations)

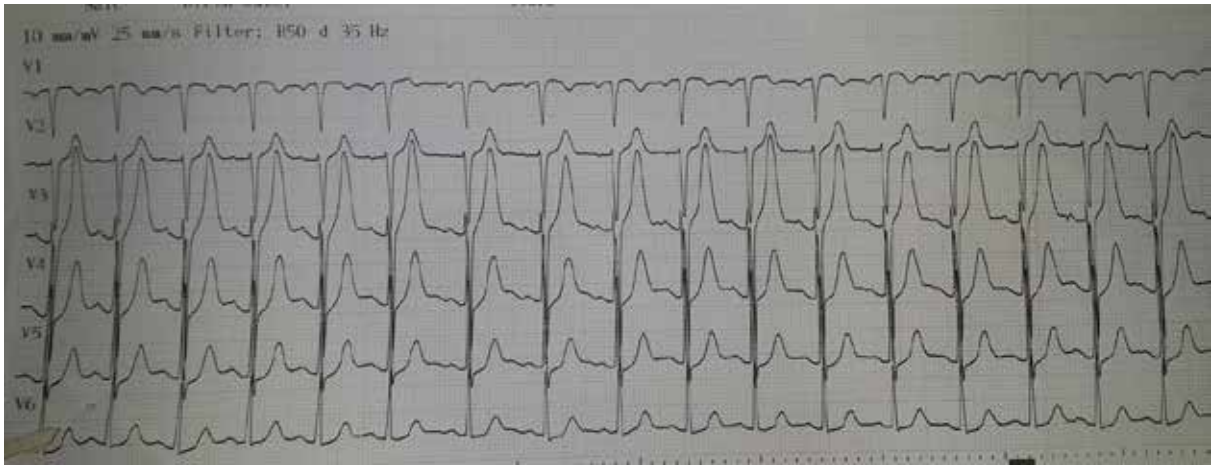


Image 3 (ECG of the patient after benzodiazepine administration-extremity derivations)

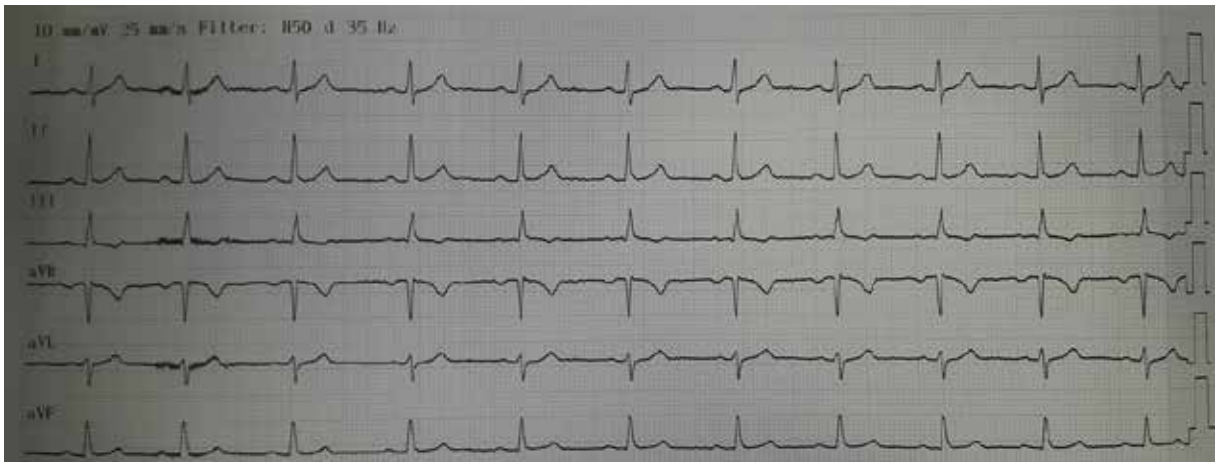
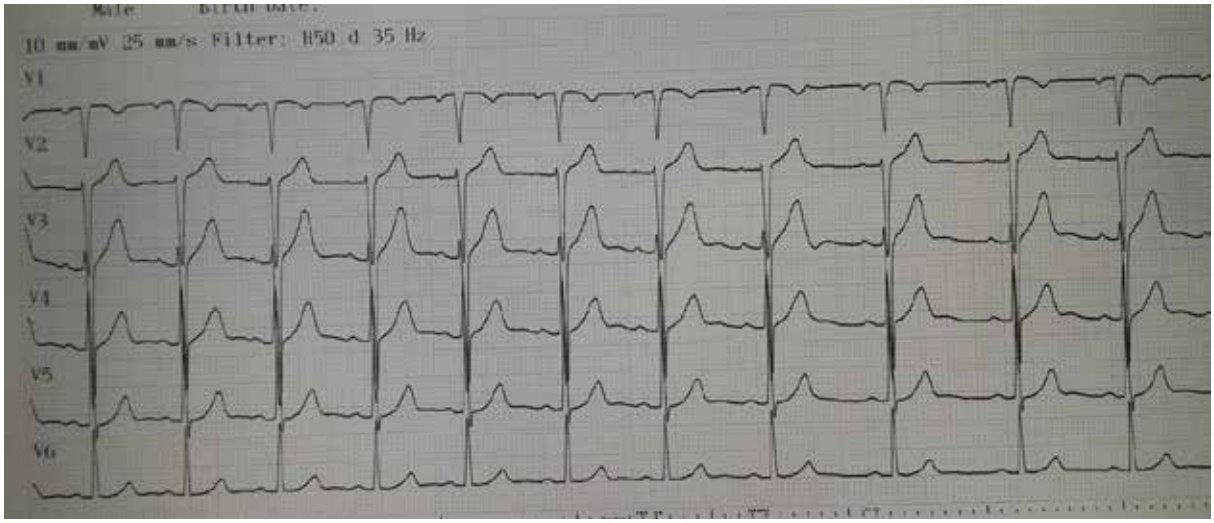


Image 4 (ECG of the patient after benzodiazepine administration-chest derivations)



References

1. Hollander JE, Hoffman RS, Gennis P, et al. Prospective multicenter evaluation of cocaine-associated chest pain. Cocaine Associated Chest Pain (COCHPA) Study Group. Acad Emerg Med 1994; 1:330.

2. Tella SR, Schindler CW, Goldberg SR. Cardiovascular effects of cocaine in conscious rats: relative significance of central sympathetic stimulation and peripheral neuronal monoamine uptake and release mechanisms. J Pharmacol Exp Ther 1992; 262:602.

3. Marzuk PM, Tardiff K, Leon AC, et al. Ambient temperature and mortality from unintentional cocaine overdose. JAMA 1998; 279:1795.

4. Richards JR, Garber D, Laurin EG, et al. Treatment of cocaine cardiovascular toxicity: a systematic review. Clin Toxicol (Phila) 2016; 54:345.

A CASE OF SPLENIC AND RENAL INFARCTION PRESENTING ABDOMINAL PAIN

Tarık Akdemir[1], Şeyma Nur Mülayim[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Introduction

Splenic infarct and renal infarct refers to parenchymal ischemia and tissue necrosis following vascular occlusion or tissue perfusion disturbance.[1-2]

They consist of abdominal or flank pain, left upper quadrant tenderness and fever that may be interpreted as an abdominal emergency. Laboratory abnormalities that support splenic infarction include leukocytosis, thrombocytosis, elevated levels of lactate dehydrogenase (LDH), and increased inflammatory markers.[3-4]

There are many factors responsible for the etiology of splenic and renal infarction. These include thromboembolic events causing obstruction in the splenic circulation (38%), infiltrative hematologic diseases (29%), splenic vascular diseases (6%), anatomical disorders (5%) and collagen tissue diseases.[4]

In hereditary thrombophilia, the risk of thrombosis increases in the presence of acquired risk factors and predisposing factors.[5]

This disease may affect patients of all ages. Patient 40 years of age and younger are more likely to have underlying hematologic illness while patients 40 years of age and older are more likely to suffer splenic infarct due to thromboembolic diseases.[6]

Treatment of splenic and renal infarct is based primarily on the underlying causative disease state.

Herein, is reported a case of the patient who presented with abdominal pain, and was found to have splenic and renal infarction.

Case

A 32-year-old man presented to the emergency department with complaints of left-upper quadrant abdominal pain, nausea and vomiting. There was no feature in his medical-background. He has no history of smoking and alcohol use. His vital signs are as follows: BP:115/80 mm Hg, HR:86 beats/min, respiratory rate of 18 breaths/min, and pulse oximetry of 98% on room air. The ECG was in sinus rhythm. On examination, there was left-upper quadrant and epigastric tenderness. There was no defense and no rebounds. Laboratory results are: AST 24 U/L, ALT 39 U/L, creatinine 1,02 mg/dl, WBC 19,12 10*3/πl, Neutrophil 16,17 10*3/πl, LDH 224 U/L, HGB 15,9 g/ dl, platelet 220000. No pathology was detected in the x-rays. A chest and abdominal CT was performed, peripheral hypodense splenic and renal lesions, highly suggestive of splenic and renal infarcts.

The patient was consulted with the Department of internal medicine and was hospitalized for follow-up.

Doppler usg showed normal renal artery and portal vein flow. Transesophageal echocardiography showed no thrombus or vegetation. No findings suggestive of infective endocarditis were found.

The presence of uveitis, oral aphthae and genital ulcers were investigated with a prediagnosis of behcet's disease, but no findings suggestive of vasculitis were found.

AT3, Protein C and protein S activity were normal. Direct-indirect coombs test and protein electrophoresis revealed no abnormality. ANA, ANCA, ENA profile, antiphospholipid antibody were normal. The thrombophilia panel of the patient revealed that he was heterozygous for factor 5 leiden. Since this condition predisposes to thrombophilia, the patient was discharged with anticoagulant therapy.

Conclusion

The association of renal and splenic infarction is a rare cause of abdominal pain. Physical examination and clinical suspicion are the physician's most powerful weapons to avoid missing rare diagnoses.

Keywords: splenic infarct, renal infarct, abdominal pain

References

1] Chapman J, Helm TA, Kahwaji CI. Dalak Enfarktüsü. [Güncelleme 2022 Temmuz 18].

2] Said, Kevser. "Böbrek enfarktüsü." Uluslararası nefroloji ve renovasküler hastalık dergisi cilt. 5 (2012): 119-23.

3] Nores M , Phillips EH , Morgenstern L , Hiatt JR . Dalak enfarktüsünün klinik spektrumu . Ben cerrahım. 1998 ;64: 182 – 188 .

4] Antopolsky M, Hiller N, Salameh S,Goldshtein B, Stalnikowicz R. Splenic infarction: 10 years of experience. Am J Emerg Med 2009; 27: 262-5.

5]Taşçı, R. (2020). Herediter trombofili hastalarında tromboz ataklarının retrospektif değerlendirilmesi. Yayınlanmamış tıpta uzmanlık tezi. Bursa Uludağ Üniversitesi Tıp Fakültesi.

6] Smalls N, Obirieze A, Ehanire I. The impact of coagulopathy on traumatic splenic injuries. Am J Surg. 2015 Oct;210(4):724-9.

Predictive Value of Base Excess for Mortality in Methanol Intoxication

Melih Uçan

Background: Methanol intoxications are among the reasons for collective admission to emergency services, apart from suicidal attempts. In this study, we wanted to investigate the use of Base excess (BE) by determining its predictive value for methanol-induced mortality.

Method: In an 8-year retrospective study; All cases with a definite diagnosis of methanol intoxication were included in the study. Cases with in-hospital mortality were included in the mortality group. Blood gas and biochemistry parameters of the patients were recorded. ROC and regression analysis were performed for the variables with significant differences between the groups.

Results: In the mortality group, pH, HCO3 and BE were statistically significantly lower, while lactate value was found to be significantly higher. We determined the AUC values as 0.852, 0.855, 0.900 and 0.708, respectively, according to the cut off values of the pH, HCO3 and BE and lactate . We found that <-23.65 of BE had the highest sensitivity, specificity and OR value (sen:86.4%, spe:89.47%, OR:0.780 [95%CI;0.656-0.929]).

Conclusion: We think that the BE value may be useful for clinicians in assigning priority to patients in collective emergency department admissions due to methanol intoxication.

Keywords: base excess, intoxication, methanol, predictive

Introduction

Methanol, also known as wood alcohol, is a substance that has been shown to be deadly even in small amounts, found in various substances (such as cleaning agents, windscreen washer fluids, antifreeze, aviation fuels, solid fuels, copier fluids and perfume) often used in household or industrial sectors. It is an alcohol derivative. Methyl alcohol intoxication is often oral and accidental. However, it has been reported that consumption of fake drinks, suicide, inhalation or skin contact also cause toxication (1-5). Alcohol and aldehyde dehydrogenase enzymes are responsible for the metabolism of methanol and other alcohols (1,6).

In our country, methanol poisoning mostly leads to mass applications due to fake alcohol consumption (19). Although their timing and clinics are different, the cases often cause congestion in the emergency departments. With the introduction of the Covid-19 pandemic into our lives, an increase was observed in the number of methanol intoxication cases in neighboring countries in the early periods. (13) According to a synthesis study conducted by 12 major clinical toxicology centers in Iran, the number of applicants with methanol poisoning in February and May 2020 is five times greater than the mass methanol poisonings seen in Libya in 2013. The reason for this has been shown to be the widespread use of alcoholic beverages recommended for disinfecting the mouth in social media and the large number of hand disinfectants that do not comply with the standards with high methanol content (13).

High anion gap metabolic acidosis is found in patients presenting with methyl alcohol poisoning. Low pH value and HCO3 value, as well as low base excess (BE), another parameter that can be easily measured in blood gas, has been shown to be associated with mortality (18). We think that the BE value may be useful for clinicians in assigning priority to patients in collective emergency department admissions such as methanol intoxication.

Materials and Methods

This study was carried out retrospectively on patients who applied to the Emergency Department of Kanuni Sul-

tan Süleyman Training and Research Hospital due to methanol intoxication. Local ethics committee approval was obtained for the study and the Helsinki statement was strictly adhered to throughout the study.

Patient records were accessed from archive data and Data Processing Automation system. The study included 51 patients over the age of 18 who applied to the emergency department with the diagnosis of methanol intoxication between May 1, 2014 and May 1, 2022. Ethanol intoxication was detected in the triggers of the patients and in 4 of them, and after 6 of them left the hospital by signing a treatment rejection form, 41 of the patients were included in the study. Age, gender, clinical follow-up and in-hospital mortality of the patients were recorded.

From the blood gas analysis of the patients at the time of admission to the emergency service; pH, HCO3, pO2, pCO2, lactate and BE values and biochemistry parameters; glucose, urea, creatinine, sodium and potassium values were recorded in the study form. From the blood samples taken from the patients, the blood gas was studied in the ABL 800 device, and the biochemistry samples were studied in the COBAS 501 device.

Statistical Analysis

Categorical data are expressed as numbers and percentages. The Mann Whitney U test was used in the analysis of data that did not fit the normal distribution, and the data were shown as median (IQR). The cutt-off values were determined by performing ROC analysis of the variables that were found to be significant between the groups. Binary logistic regression analysis was performed to determine the effect of independent variables in the mortality group. P<0.05 and 95% CI were used for statistical significance.

Findings

A total of 41 patients, 4 female and 37 male, were included in the study. We did not find a statistically significant difference between the gender distribution and mean age of the groups with mortality (p=0.639, 0.053, respectively).

Table 1. Analysis of general data

Yok		Mortalite n (%)		p
		Var		
Cinsiyet	Kadın	2 (50)	2 (50)	0,639[a]
	Erkek	17 (45,9)	20 (54,1)	
Yaş, median (IQR)		38 (16)	43,5 (14,25)	0,053[b]

[a]; Fisher's Exact test, [b]; Mann Whitney U test, [c]; Pearson Chi Square test

When we group the patients according to the incidence of mortality; we found that pH, HCO3 and BE values were statistically significantly lower in the group resulting in mortality, while pO2, lactate, glucose and creatinine values were statistically significantly higher. Comparison of other data is shown in table 2.

Table 2. Comparison of values in groups with mortality

	Mortality		p
Parameters	Absent	Present	
pH	7,11 (0,22)	6,87 (0,39)	**<0.01**
pCO_2	33,10 (15)	35,25 (21,35)	0,695
pO_2	47,30 (12,50)	93,15 (121,93)	**<0.01**
Lactate	2,9 (3,40)	7,13 (5,61)	**0,023**
HCO_3	9,5 (10)	5,65 (2,98)	**<0.01**
BE	-18,60 (14,40)	-25,35 (4,13)	**<0.01**

Glucose	116 (41)	185 (166)	**0,011**
Urea	30 (24,90)	26 (22,68)	0,320
Creatinine	1,14 (0,50)	1,41 (0,66)	**0,023**
Sodium	135 (11)	136 (6,5)	0,885
Potasium	5,2 (1,2)	5,35 (1,30)	0,784

The ROC curves of the independent variables with statistically significant differences between the mortality groups are shown in figures 1 and 2. Statistical significance was determined in the ROC analyzes of pH, HCO3, BE and lactate values, and the AUC values for the determined cut-off values; we found them to be 0.852, 0.855, 0.900 and 0.708, respectively. We found that <-23.65 of BE had the highest sensitivity and specificity (86.4%, 89.47%). ROC analysis, sensitivity, specificity, NLR and PLR values of independent variables are shown in Table 3.

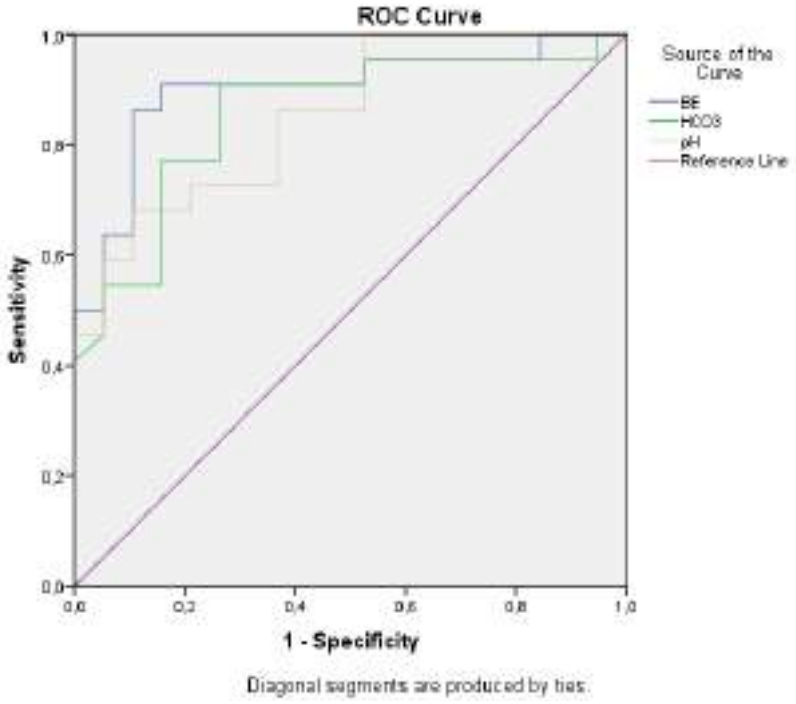


Figure 1. ROC curve of BE, HCO3, and pH values

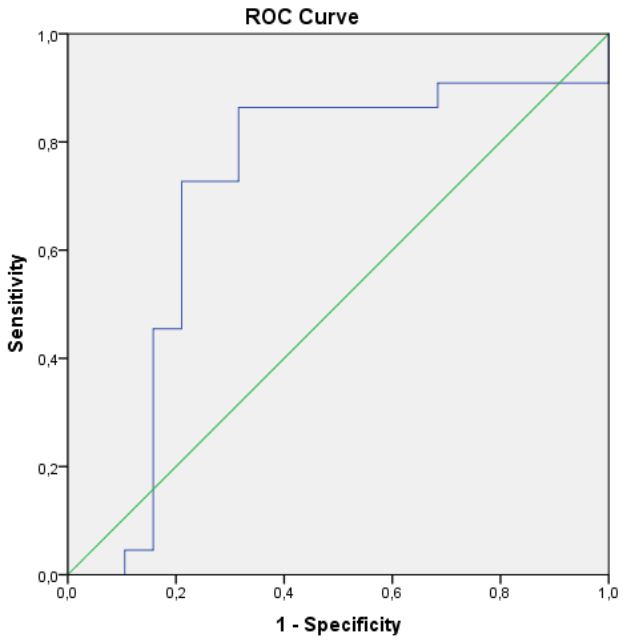


Figure 2. ROC curve of lactate value

Table 3. ROC analysis results of significant independent variables

Test Result Variables	Area	Sensitivity	Specifity	NLR	PLR	p	Asymptotic 95% CI	
							Lower	Upper
pH <6,99	0,852	68,2	80,95	0,39	3,58	**,000**	0,739	0,965
HCO_3 <7,15	0,855	77,3	84,21	0,27	4,89	**,000**	0,736	0,974
BE <-23,65	0,900	86,4	89,47	0,15	8,20	**,000**	0,799	1,000
Laktat > 4,25	0,708	86,4	68,42	0,20	2,73	**,023**	0,530	0,887

We found that BE had the highest OR value in the univariate logistic regression analysis performed to control the accuracy of the independent variables found statistically significant as a result of ROC analyzes and high AUC values in predicting the diagnosis of mortality (OR:0.780 [95%CI;0.656-0.929]) . (Table 4)

Table 4. Univariate Logistic Regression Results

	B	S.E.	Wald	df	p	OR	95% CI	
							Lower	Upper
pH	-8,808	2,800	9,895	1	**0,002**	,000	,000	0,036
HCO_3	-0,298	0,113	6,946	1	**0,008**	0,743	0,595	0,927
BE	-0,248	0,089	7,792	1	**0,005**	0,780	0,656	0,929
Laktat	0,098	0,070	1,948	1	0,163	1,103	0,951	1,266

Discussion

Methyl alcohol poisoning is an emergency cause that can cause serious sequelae and can be fatal. Substances

containing methanol can be used accidentally or for suicidal purposes (9). The classification of the severity of the patients is important in determining the priority. The basis of treatment in methyl alcohol intoxication is rapid diagnosis, initiation of resuscitation, cardiopulmonary support, prevention of conversion to toxic metabolites (alcohol dehydrogenase enzyme inhibition), correction of existing metabolic acidosis, and removal of toxic metabolites from the body (15,16).

In our study, we retrospectively analyzed 41 patients, 37 males and 4 females, who applied to the emergency department with a pre-diagnosis of methyl alcohol poisoning based on a history and clinical evaluation, since methyl alcohol levels were not studied in our center. We did not find a statistically significant difference between the gender distributions and the mean age of the mortality groups. We found that low pH, HCO3 and BE values were significant in groups with mortality. (Table-2)

In methanol intake, inhibition of the formation of toxic metabolites is achieved by competitive inhibition of the alcohol dehydrogenase enzyme by ethanol or fomepizole. Formic acid, which is the metabolite responsible for the toxicity and metabolic acidosis caused by methanol poisoning, can be converted to carbon dioxide and water with high-dose folate or folinic acid treatment (15). Hemodialysis (HD) is the best method to rapidly destroy both toxic acid metabolites and major alcohols and plays a fundamental role in the treatment of severely poisoned patients (17).

In patients with methanol intoxication, fatal complications such as gastrointestinal involvement, central nervous system involvement, acute renal failure, metabolic acidosis (with increased anion gap) may develop. Being unconscious or cloudy at the time of admission is one of the factors that compel the clinician to take anamnesis. Many people who fake alcohol consumption hide their story because of guilt and shame or because of legal problems that may arise. Such situations complicate the work of the clinician who evaluates the patient, and cause delay in diagnosis and treatment (1,7,8). Methyl alcohol sometimes causes mass poisonings and deaths in the form of epidemics (9). Morbidity and mortality in methanol poisoning remain high, mostly due to difficult and late diagnosis, despite improved treatments (10). In recent years, it has been observed that the number of methanol intoxication cases has increased in our country, especially with the introduction of the pandemic into our lives, and many patients in many countries, including our country, apply to the emergency service at the same time (11-14).

In this study, which we carried out in our third step center, we examined the mortality of the patients after the diagnosis and treatment process, and we found that base-minus, HCO3 and lactate values showed significant variability. The most significant of these parameters, which will help the clinician in predicting mortality, is the BE value. (Table-4). Especially in the mortality group; we found that low pH, HCO3 and BE values were statistically significant. As a matter of fact, in another retrospective study including 31 patients in the emergency department, it was determined that methyl alcohol intoxication was more common in men and those with a history of chronic alcohol intake, and it could be mortal in patients with low pH, HCO3 and GCS values, and high sodium and BE values (18).

The limitations of our study are that it is retrospective, the methyl alcohol level was not studied, and the number of cases was low.

Results

It was determined that patients with low pH, HCO3 and BE values presenting with methyl alcohol poisoning could be mortal. We believe that larger studies will yield more effective results.

Ethics Committee Approval: Kanuni Sultan Süleyman Training and Research Hospital Ethics Committee approval was obtained.

Conflict of Interest: There is no conflict of interest among the authors participating in the study.

Financial Disclosure: No financial support was received for the study.

Informed Consent: Since it is a retrospective study, patient consent was not obtained.

References

1. Satar S, Güneysel Ö, Türedi S, Yürümez Y, Akıcı A. Klinik Toksikoloji Tanı ve Tedavi. Alkoller ve Glikoller. Antalya. Çukurova Nobel Tıp Kitabevi, 2020.

2. Ashurst JV, Nappe TM. Methanol Toxicity. [Internet]. Treasure Island (FL). StatPearls Publishing, 2021.

3.Vural S. Transdermal methanol ıntoxication via folk medicine. J Emerg Med Case Rep. 2019;10(2):50-2.

4. Holt NR, Nickson CP. Severe methanol poisoning with neurological sequelae: implications for diagnosis and management. Intern Med J. 2018;48(3):335-9.

5. Beauchamp GA, Valento M, Kim J. Toxic alcohol ingestion: prompt recognition and management in the emergency department [digest]. Emerg Med Pract. 2016;18(9):S1-S2.

6. Roberts DM, Yates C, Megarbane B, Winchester JF, Maclaren R, Gosselin S et al. Recommendations for the role of extracorporeal treatments in the management of acute methanol poisoning: A systematic review and consensus statement. Crit Care Med. 2015;43(2):461-72.

7. Gulen M, Satar S, Avci A, Acehan S, Orhan U, Nazik H. Methanol poisoning in Turkey: Two outbreaks, a single center experience. Alcohol. 2020;88:83-90.

8. Hassanian-Moghaddam H, Nikfarjam A, Mirafzal A, Saberinia A, Nasehi AA, Masoumi Asl H et al. Methanol mass poisoning in Iran: Role of case finding in outbreak management. J Public Heal (U. Kingdom). 2015;37(2):354-9.

9. Yaycı N, İnanıcı MA. Metil alkol (metanol) zehirlenmesi. Turkiye Klinikleri J Foren Med 2005;2:101-8

10. Hovda KE, Hunderi OH, Tafjord AB, et al. Methanol outbreak in Norway 2002-2004: epidemiology, clinical features and prognostic signs. J Intern Med. 2005;258(2):181-90.[CrossRef]

11.Sözcü Gazetesi. Erişim tarihi: 20 Nisan 2021: https://www.sozcu.com.tr/2020/gundem/son-dakika-kirikkale-de-sahte-ickiden-7-kisi-hayatini-kaybetti-6073679/

12.EvrenselHaber.Erişim tarihi: 20 Nisan 2021: https://www.evrensel.net/haber/416305/metil-alkol-zehirlenmesi-suphesiyle-15-gunde-73-kisi-yasamini-yitirdi

13. Mahdavi SA, Kolahi AA, Akhgari M, Gheshlaghi F, Gholami N, Moshiri M, Mohtasham N, Ebrahimi S, Ziaeefar P, McDonald R, Tas B, Kazemifar AM, Amirabadizadeh A, Ghadirzadeh M, Jamshidi F, Dadpour B, Mirtorabi SD, Farnaghi F, Zamani N, Hassanian-Moghaddam H. COVID-19 pandemic and methanol poisoning outbreak in Iranian children and adolescents: A data linkage study. Alcohol Clin Exp Res. 2021 Sep;45(9):1853-1863. doi: 10.1111/acer.14680. Epub 2021 Sep 6. PMID: 34487368; PMCID: PMC8653331.

14. Welle L, Medoro A, Warrick B. Tainted Hand Sanitizer Leads to Outbreak of Methanol Toxicity During SARS-CoV-2 Pandemic. Ann Emerg Med. 2021 Jan;77(1):131-132. doi: 10.1016/j.annemergmed.2020.07.011. Epub 2020 Jul 8. PMID: 33349368; PMCID: PMC7345407.

15. Akyol SAJ. Alkoller. In:, Çete Y, Denizbaşı A, Çevik AA, Oktay C, Atilla R edt. Tintinalli Acil Tıp Kapsamlı Bir Çalışma Klavuzu. 7. Baskı. İstanbul: Nobel Matbaacılık, 2013:1222-30.

16. Sivilotti MLA. Methanol and ethylene glycol poisoning. Erişim adresi www.uptodate.com erişim tarihi 04.07.2018.

17. Kute VB, Godara SM, Shah PR, et al. Hemodialysis for methyl alcohol poisoning: a single-center experience.

Saudi J KidneDis Transpl. 2012;23(1):37-43.

18. Seyran Bozkurt Babuş , Gülten İraöz , Ataman Köse , Gülhan Orekici Temel , Rukiye Nalan Tiftik , İbrahim Toker Retrospective Analysis of Methyl Alcohol Intoxications in Emergency Department) Tepecik Eğit. ve Araşt. Hast. Dergisi 2019;29(3):235-240 doi:10.5222/terh.2019.85698

19. Mutlu, Emre, Yasemin Balcı, and Çetin Seçkin. "Muğla'da Metanol Zehirlenmesine Bağlı Ölümler: Olgu Serisi." (2022).

PURPLE URINARY BAG SYNDROME

Mazlum Kılıç

Purple Urinary Bag Syndrome (PUBS) is a rare syndrome which is the purple staining of the urine collection bag after urinary tract catheterization of patients with constipation and urinary tract infection.

An 82-year-old male patient was presented with complaints of deterioration in general condition, fatigue and fever for 10 days and constipation for 2 days. He had been followed up for prostate cancer for 10 years and had not been operated. He had a urinary catheter inserted. There were previous hospital admissions with urinary tract complaints. Hypertension and diabetes mellitus were other comorbidities.

His vital signs were body temperature: 37.2°C, BP: 142/83mmHg, HR: 82/min, and spO2: 93%, RR: 10/min. The prostate was palpable on rectal examination. Other system findings were normal.

Blood tests were WBC: 11,700/mm3, Hgb: 10.9g/dl, CRP: 1.489mg/L, Creatinine: 0.8mg/dl, BUN: 30mg/dl . Other parameters were within normal limits.

The urine coming from the bladder catheter had dyed the patient's urine collection bag purple. Urinalysis revealed: 33 erythrocytes and 207 leukocytes in urine. Urine culture and antibiogram were taken from the patient. 2 grams of ceftriaxone was administered intravenously.

His abdominal imaging: "Cortical cysts were observed in the kidney. Prostate size has increased". No other features were found. He was transferred to infectious diseases department.

PUBS is a disease of people with chronic catheterized urinary tract infections, often in the elderly with constipation. During constipation, the tryptophan taken from the bacteria colonizing the intestine is converted to indole. Indole is sulfated in the liver and excreted in the urine as indoxysulphate. Bacteria in the bladder convert this indole sulfate to indoxy. The oxidation of indoxylin results in blue(indigo) and red(indirubin) colors. The purple color is formed from the chemical reaction between indigo and indirubin and the synthetic components of the urinary catheter bag containing polyvinyl chloride.

For the development of PUBS; female gender, alkaline urine, constipation, being hospitalized, use of plastic (PVC) urinary catheters and some bacteria (Providencia spp., Escherichia coli, Proteus mirabilis and Klebsiella pneumoniae) are blamed.

Recognizing PUBS is an important indicator for a quick and accurate diagnosis which emergency physicians should be aware of.

Abdominal twitches due to ICD lead dislodgement; A case report

Yusuf Oktay

Introduction: Implantable cardiac electronic device lead dislodgement carries significant comorbidities such as malfunctions of implantable cardiac devices and may result in inappropriate therapy such as the paucity of shock delivery in ventricular tachycardia or lack of pace in severe bradycardia. The incidence of implantable cardioverter-defibrillator(ICD) lead dislodgement was found 1.8% in the 1st year of their implantation.[1] In this paper, we present a case with abdominal complaints due to ICD lead dislodgement.

Case: A 63-year-old patient was admitted to our emergency department with new-onset abdominal pain and sensation of twitching on his abdominal wall. At his past medical history, the patient had coronary artery bypass grafting operation, ischemic stroke and congestive heart failure. The patient's ejection fraction was 30%, and therefore, an ICD was implanted to prevent malignant ventricular arrhythmias 1 month ago. He was on his own medications regularly. He denied any recent trauma to his abdomen or thorax. His vital findings were in normal limits and his physical examination was unremarkable except observable twitching movements on his abdominal wall. An electrocardiogram (ECG) was obtained from the patient that showed sinus rhythm, right bundle branch block (RBBB) with left posterior fascicular block (LPFB), and pace spikes unrelated with QRS complexes [Figure 1].

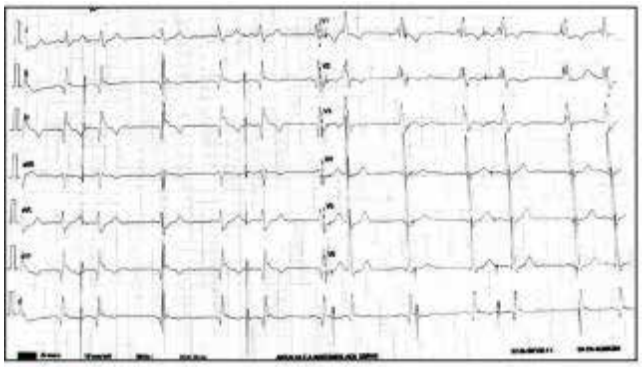


Figure 1: Patients' electrocardiogram on admission shows sinus rhythm, right bundle branch block, left posterior fascicular block, and regular pace spikes unrelated with QRS complexes. Note that hidden pace spikes in the third and eleventh QRS complexes

The patient was monitored and observed that the pace spikes occur simultaneously with abdominal pulsations. The patient was admitted and another operation was performed for the repositioning of the lead. A fluoroscopic imagining was obtained before the procedure that showed the dislodgement of the ICD lead [Figure 2].

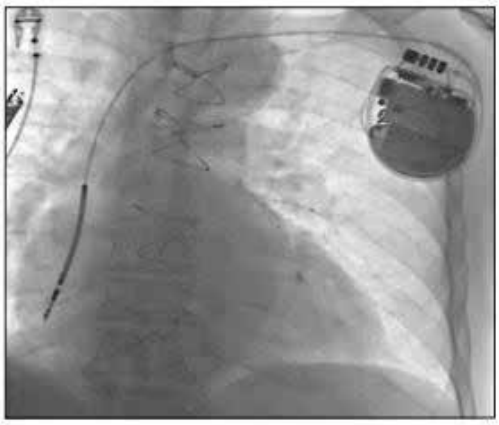


Figure 2: Patient's fluoroscopic imagining demonstrating dislodged lead

During the procedure, coiling of the lead around the generator was observed and the lead of the ICD was uncoiled and repositioned under fluoroscopy. The patient's complaint had resolved after operation, an ECG was obtained that showed sinus rhythm with RBBB and LPFB without any pace spikes and chest X-ray that confirmed normal placement of the lead [Figure 3] and the hospital course was uneventful, and the patient was discharged the day after the procedure.

Figure 3: Patient's chest X-ray after repositioning the lead

In this paper, we present a case who had an inserted ICD and abdominal twitches simultaneously with pace activity. As the ICDs have pacemaker (PM) properties and generate pulses below the set limits of heart rate or in case of asystole, in our case, the device did not sense the ventricular systole because of the dislodgement of the lead from the right ventricle and generated paces that innervate nervous phrenicus, the reason of the abdominal twitching.

BOTULISM AFTER BOTULINUM TOXIN INJECTION OF THE LOWER ESOPHAGEAL SPHINCTER

Sakine Neval akar

Introduction

Botulinum neurotoxin (BoTx) can target multiple tissues including motor and sensory neurons, inhibiting of the release of acetylcholine from nerve endings to block the cholinergic neuromuscular innervation of striated and smooth muscles, also the cholinergic innervation of the tear, sweat, and salivary glands (1). The therapeutic use of botulinum toxin was introduced about two centuries ago, when Justinus Andreas Christian Kerner recognized the effect of botulinum toxin on skeletal muscles and the parasympathetic function. Nowadays, the indications of botulinum toxin are constantly expanding. As a viable treatment for achalasia botulinum toxin injection (BTI) was first introduced in 1995 by Pasricha et al (2). BTI is generally considered safe, but its widespread use and the constantly expanded indications raise safety issues. In this case, we aimed to present the patient who admitted our emergency service with botulism symptoms after BTI of the lower esophageal sphincter.

Case Report

A 49-year-old female patient applied to the emergency room (ER) with worsening complaints of dizziness, diplopia, dysphagia, general weakness and dyspne for a week. There was no infective symptoms such as cough, sputum, sore throat, diarrhea; no consumption of expired foods in her story. In her history, there was no-known chronic pulmonary diseases or other medical conditions. After questioning further story, the patient told, she had an BTI of the esophageal sphincter a week ago. Glasgow coma score (GCS): 15, general condition was good, conscious, cooperative, oriented at her arrival to ER. In her vitals, the patient had arterial blood pressure: 118/60 mm/Hg, pulse: 88/minute, fever: 36.2 C°, oxygen saturation 98% at room air, respiratory rate (RR): 12/dk. Electrocardiography (ECG) was sinus rythm, no-ischemic signs. In neurological examination; pupils are isocoric with normal direct and indirect pupillary light reflex, bilateral gaze evoked nystagmus, dropped left-nasolabial fold were occured. Bilateral biceps, forearm flexor muscles and bilateral lower extremities muscles strengths were 4/5 and sensorial functions of all these extremities were normal, deep tendon reflexes of all four-extremities were normoactive. Other system examinations were found normal. There was no significant change in the blood tests of the patient. In brain computed tomography (B-CT) and diffusion-weighted cranial magnetic resonance imaging (MRI) were perfomed in the ER, there were cavernomas which presented in the patient's MRI a year before. The patient, was diagnosed botulism, was transferred to Neurology service for treatment and follow-up. In electromyography, motor end-plate dysfuntion was reported.

Pyridostigmine bromide 60 mg/three-times of day and budesonid 1mg/ three-times of day therapies was given. Because not being in the acute phase of botulism, antitoxin was not given. After the patient's symptoms were resolved, patient discharged with additional medical advice and policlinical control appointment.

Discussion

Botulism is a potentially lethal paralytic disease caused by toxins. Their mechanism of action of toxin is associated with inhibition of acetylcholine release at the neuromuscular junction of striated muscles, thus resulting in muscle paralysis and chemical denervation. Inspite of indications of BoTx are constantly expanding, knowledge of the serious adverse events and long-term safety of botulinum toxin is necessary. Although randomized controlled trials could contribute data on the safety of BoTx, they actually do not report serious or long-term adverse events of botulinum toxin (3). The effects of generalized diffusion are not well studied. The mechanism responsible for the generalized diffusion of botulinum toxin is not known. After therapeutic use of BoTx, adverse effects and events are seen more commonly, but also can be noticed with its cosmetic use (4).

Result

Physicians and patients must be aware of the hazards associated with use of unlicensed and licensed botulinum toxin products. Early recognition of botulism, treatment in an intensive care setting, provision of mechanical ventilation when indicated, and rapid administration of antitoxin (optimally within 12 hours of presentation) have been associated with improved clinical outcome (5).

1. Kumar R, Dhaliwal HP, Kukreja RV, Singh BR. The Botulinum Toxin as a Therapeutic Agent: Molecular Structure and Mechanism of Action in Motor and Sensory Systems. Semin Neurol. 2016;36(1):10.

2. P.J. Pasricha, W.J. Ravich, T.R. Hendrix, S. Sostre, B. Jones, A.N. Kalloo.**Intrasphincteric botulinum toxin for the treatment of achalasia.** N Engl J Med, 332 (1995), pp. 774-778

3. Yeh, Y.-T., Peng, J.-H., & Peng, H.-L. P. Literature review of the adverse events associated with botulinum toxin injection for the masseter muscle hypertrophy. Journal of Cosmetic Dermatology. 2018 Oct;17(5):675-687. doi: 10.1111/jocd.12721.

4. Serious and long-term adverse events associated with the therapeutic and cosmetic use of botulinum toxin. Pharmacology. 2015;95(1-2):65-9. doi: 10.1159/000370245.

5. Sandrock CE, Murin S. Clinical predictors of respiratory failure and long-term outcome in black tar heroin-associated wound botulism. *Chest*. 2001;120:562-56611502659

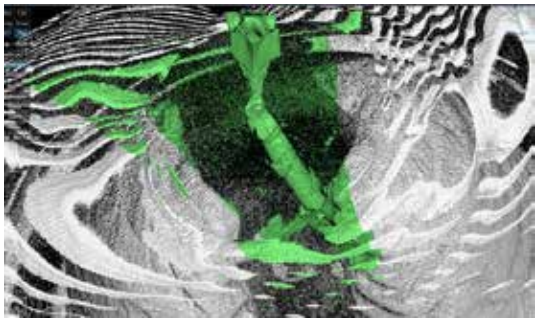
Evaluation of tracheal stenosis with 3D imaging computer tomography in Emergency Department: A case report

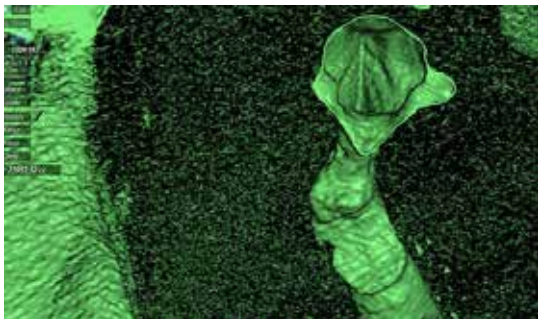
Gürkan Akman

Introduction: Evaluating a patient with tracheal stenosis is challenging. There are many treatment options but there is no objective criteria for patients to have which one. Usullay physician's clinical experiment tells the last word. Three dimensional technology can be an objective toll to manage these patients in emergency departments.

Case Report: A forty year old patient has brought to emergency department with stridor by emergency medical service. On the arrival patients blood pressure was 150/90 mmHg, pulse was 115 per minute, oxygen saturation was 85 per cent. Also patient was breathing 35 times per minute. On physical examination on the upper airways there was stridor. Breath sounds were bilaterally equal. There was no more pathological findings. In the patient's past medical history patient had tracheal stenosis and 3 times surgery for that. The last operation was done one year ago as a tracheal dilatation. In laboratory findings, white blood cell: 15.270**µL**, c-reactive protein : 110, creatinine : 0.56mg/dl , urea: 46 mg/dl , ph: 7.36 hco3: 20.9mmol/L. pCO2: 50 mmHg. A narrowed trachea was seen on the patient's computed tomography. The severity of this stenosis was objectively revealed by three-dimensional tomography. The patient was then consulted with thoracic surgery. Urgent tracheal operation was decided. The patient was discharged after staying in intensive care for 3 days.

Discussion: Tracheal dilatation patients are challenging. Air hunger and high carbon dioxide levels can cause irreversible results. Today day by day tomography technology improves. However, with the use of three-dimensional tomography in emergency services, it becomes easier for patients to reach absolute treatment. In this case, three-dimensional tomography was used and the tracheal diameter of the patient was measured and the severity of the stenosis was noticed. Ultimately, clinical conditions such as tracheal stenosis are like being on the edge of a cliff. Clinicans must use all objective tools to predict when the patient may fall and to prevent mortality. Three-dimensional tomography is a technology that should be used in critically ill patients in emergency departments.





Myoma of the uterus = LUNG EDEMA ?

İbrahim Saraç[1], SidarŞiyar Aydın[1], Halil İbrahim Doru[2], Nurda Öztürk[2], Orhan Delice[2], Onur Zengin[2]

[1]Ministry of Health University, Erzurum City Hospital, Department of Cardiology Erzurum

[2]Ministry of Health University, Erzurum City Hospital, Department of Emergency Medicine Erzurum

Introduction: Mitral stenosis (MD), often rheumatic It is seen due to fever and continues to be an important health problem especially in non-industrialized societies. While patients with MD may remain asymptomatic for years , they gradually become symptomatic with the increase in the degree of stenosis . In addition, an acute serious infection that may occur in these patients, uncontrolled hypertension, fever, increased or decreased cardiac output, cardiac and non cardiac pathologies that may cause tachycardia may cause exacerbation of symptoms or decompensation of patients . In our case, we will talk about our patient with MD who applied to the emergency department with menometrorrhagia and accompanying crescendo dyspnea and tachycardia for about 1 week .

Case: Diagnosed with rheumatic valve disease in childhood and had a history of birth 20 years ago, and regular cardiological follow-up was not performed. His occasional menometrorrhagia bleeding has been intensified for about 1 week, and crescendo-style dyspnea and palpitations have been added to the complaints. In the evaluation of the patient who applied to the emergency department; laboratory tests hb : 7.8 htc:23.8 and other tests were within the normal range, TA: 90/65 mmHg , pulse 123 / min , ECG : sinus tachycardia (Figure-1). Respiratory rate: 18, breath sounds are crepitant in lung basals ral is present, pretibial edema : 1/1, presystolic aggravation, mitral opening sound, diastolic bearing were detected in cardiac auscultation examination . The patient, who was orthopneic and was diagnosed with giant uterine myoma, was consulted to the cardiology clinic in line with the PE findings. In the evaluation and imaging, the patient was diagnosed with advanced md (Figure-2).

After gynecological surgery, md balloon valvuloplasty was performed and the patient was discharged with full recovery.

Discussion: Two-thirds of MD patients are women. In the valve that initially develops fibrosis , fusion occurs over time, resulting in narrowing of the mitral valve. As a result of the progressive stenosis, an increase in pressure will be observed in the structures and vessels behind the stenosis. Pulmonary congestion develops secondary to the increase in venous pressure , and over time, increased pressure in the right ventricle working against the increasing pulmonary artery pressure , pulmonary HT and as a result systemic congestion develops. It was observed that valve narrowing developed faster than expected with recurrent rheumatic fever. As the severity of the stenosis increases, cardiac output decreases. The pressure difference between the left atrium and the left ventricle is affected by factors such as heart rate, cardiac output, valve area, and mitral regurgitation. The patients show symptoms related to the progression in the level of stenosis of the valve, enlargement and pressure in the heart chambers, developing new arrhythmias-af, increased transvalvular pressure, accompanying additional valve pathology . In addition to these, advanced MD In asymptomatic patients, excessive exercise, emotional stress, pregnancy, amnesia with rapid ventricular response, and other conditions that cause tachycardia may become symptomatic or decompensation may develop. The valve area of our patient in our case was measured as 0.99 cm2, and we observed that the symptoms developed within the last week due to low blood flow, secondary tachycardia and increased valve gradient . As a matter of fact, close cardiological follow-up in patients with rheumatic MD and informing physicians and patients about the risk factors that will cause clinical decompensation in patients with advanced valve area are very important.

Conclusion: Detailed systemic examination is of vital importance in all patients admitted to the emergency department. As a matter of fact, physical examination and anamnesis are still the gold standard for the diagnosis

and differential diagnosis of many diseases. Combining the symptoms of the patients with the findings of the physicians is indispensable for diagnosis. Acute hematocrit drop and pain as seen in this patient Clarifying clinical findings that cannot be seen simultaneously, such as congestion , is possible only with a detailed anamnesis and physical examination, and is of vital importance.

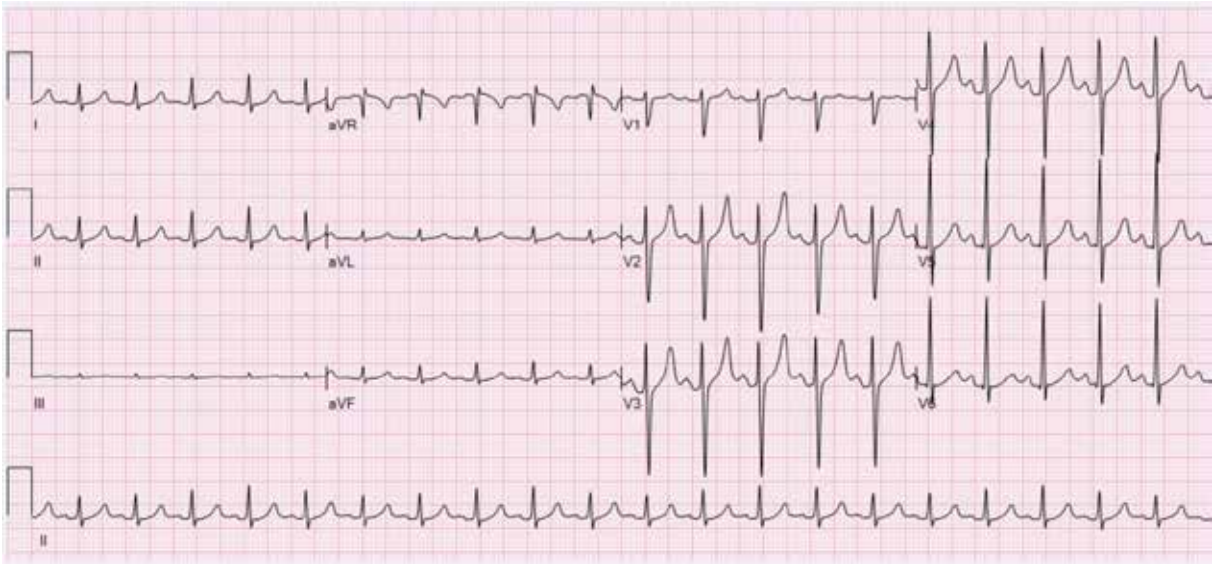


Figure - 1 : Sinus of the patient tachycardia ekg

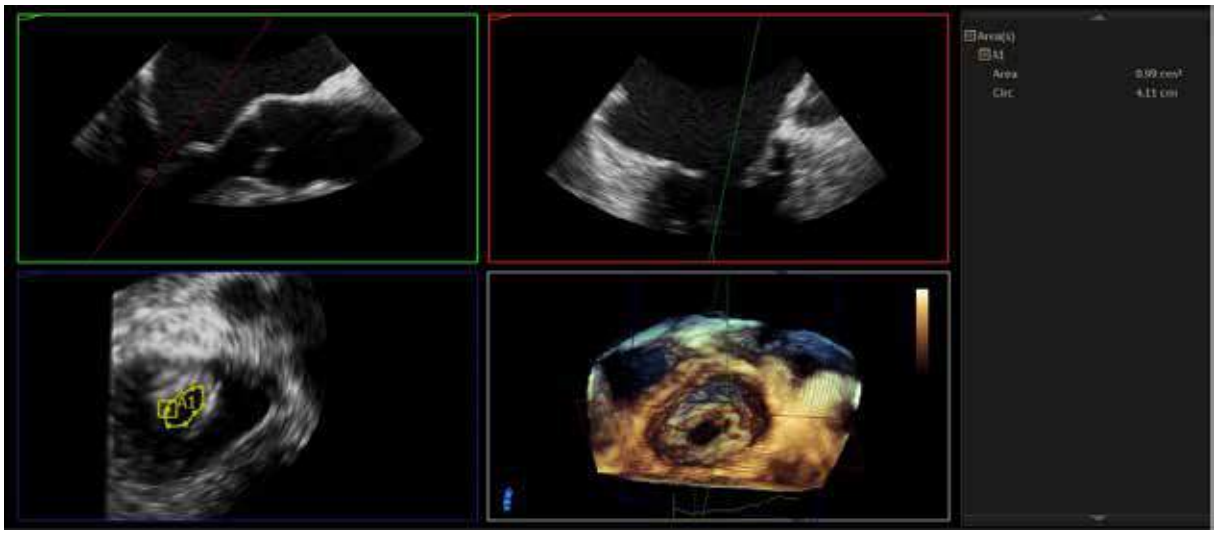


Figure - 2 . Multipanar 3D transesophageal echocardiography performed on the patient Mitral valve area measurement by reformation method.

TUMOR LYSIS SYNDROME in an UNFOLLOWED PATIENT with CHRONIC MYELOCYTIC LEUKEMIA (CML): A CASE REPORT

Hasip Kızılay[A], Anıl Burak Tülü[A], Selahattin Gürü[A], Nilüfer Aydın[A], Hakan Oğuztürk[A]

[A]Ankara City Hospital, Emergency Medicine Department

Tumor lysis syndrome (TLS) is an oncological emergency that causes massive cell destruction and consequent release of high levels of potassium phosphate and nucleic acid into the systemic circulation. Uric acid is formed as a result of nucleic acid metabolism, and hyperuricemia and hyperphosphatemia cause acute kidney injury. Laboratory parameters compatible with TLS were defined as uric acid >8mg/dl, potassium >6meq/l, phosphorus>6.5mg/dl, calcium<7mg/dl. Meeting 2 or more criteria within three days before or 7 days after cytotoxic therapy promotes tumor lysis. TLS is more common in Burkitt's Lymphoma and Acute Lymphoblastic Leukemia (ALL). The most common causes of death in TLS are cardiac arrhythmias and acute renal failure.[2]

Chronic myeloproliferative leukemia (CML) is a myeloproliferative neoplasm characterized by uncontrolled proliferation, irregular production and poor differentiation of granulocytes. Most patients are asymptomatic and diagnosed at routine follow-up. The main symptoms in symptomatic patients are weakness, fatigue, weight loss, excessive sweating, abdominal fullness and recurrent bleeding.[1] Tumor Lysis Syndrome is an oncological emergency that can be seen at Chronic Myelocytic Leukemia and requires rapid diagnosis and treatment.[2]

A 28-year-old male patient, who was diagnosed with CML 8 years ago, presented to the emergency service with complaints of shortness of breath, cough, sputum for 15 days, hematuria for 4 days, and deterioration in general condition. The patient, who was under treatment with imatinib 400 mg and folic acid and whose follow-up was delayed for a long time, stopped using the drug. General condition is moderate, conscious, oriented, cooperative, bilateral rales heard on lung auscultation, no defensive or rebound tenderness in abdominal examination. Vital findings were blood pressure (BP): 114/54 mmHg, pulse: 94/min, body temperature: 36°C, S2: 90% (under room air). In the laboratory parameters of the patient, urea:169 mg/dl, creatinine: 9.61 mg/dl, uric acid:>20 (3.7-9.2) mg/dl, potassium: 3.4 meq/L, calcium: 6.6 (8.7 -10.4) mg/dl, phosphorus: 9.9(2.4-5.1)mg/dl pct:12.77 (<0.16) mcg/L, crp:99(0-5) g/L, wbc: 316.7*10^9/L , neu: 261.5*10^9/L, hg: 5.9g/dl, plt: 26*10^9/L, ph:7.06, pco2: 39 mmhg, po2:20.9mmhg, hco3:11 mmol/L BE: It was found to be -17.4. In the patient's imaging, brain computed tomography (CT) was performed which has reported by the radiology clinic as: A slightly hyperdense parenchymal hematoma of approximately 70*52 mm in size in the right frontal lobe accompanied by peripheral vasogenic edema was observed. Right lateral ventricle is narrowed asymmetrically secondary to compression. It was reported as a 9 mm shift to the left in the midline.

The patient was started to be treated in the intensive care unit in the emergency room, he was followed up with a monitor, and after receiving the opinions of the relevant branch, the patient was transferred to the general intensive care unit for further examination and treatment.

Tumor Lysis Syndrome is a common oncological emergency that can be life-threatening in all malignancies. Emergency room physicians should be alert for TLS when evaluating patients with malignancy, and the tests to support the diagnosis of TLS should be completed quickly and treatment should begin in the emergency room.

[1] Van Etten R, Larson R, Rosmarin A. Clinical manifestations and Diagnosis of Chronik myeloid leukemia- official reprint from UpToDate-jul.2020.

[2] Larson R, Pui C, et al. Tumor Lysis Syndrome: Prevention and Treatment-official reprint from UpToDate-apr,2022.

Hydatid cyst rupture

İsmail Enver Obuz[1], Melih Uçan[1], Salih Fettahoğlu[1], Süreyya Tuba Fettahoğlu[1], İsmail Yeşiltaş[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Hydatid cyst disease is a parasitic infection caused by Echinococcus granulosus. It is most common in the liver and lungs. Most of the cysts are asymptomatic and may regress spontaneously. The clinical picture may vary depending on the organ affected by the parasitic infection, the size of the cyst and the interaction of the cyst with the neighboring organs;however, rarely, severe anaphylactic shock may occur when the ruptured cyst spreads into the peritoneal cavity.

Case: A 22-year-old female patient was admitted to the emergency room green area withabdominal pain, diffuse redness in the body, urticarial lesions. The patient who did not get relief despite symptomatic treatment in the green area was taken to the red area. On physical examination performed in the red area, there was widespread tenderness in the abdomen.Bedside abdominal ultrasound was performed in the patient whose vitals were normal and fluid was observed in the hepatorenal area. Contrast-enhanced abdominal tomography was requested from the patient whose routine examinations revealed Hgb 14.5 WBC 19.37neutrophils 17.6 pH 7.33 lac 3.4 INR 5.6. Contrast-enhanced abdominal CT: The liver is in normal position and size. A hypodense cystic mass lesion containing separated germinative membranes, approximately 10x8.5 cm in size, is observed in the right lobe of the liver.The patient was consulted to the general surgery. He was admitted to the general surgery service.

Conclusions: Hydatid cysts can be seen most frequently in the liver and secondly in the lung. Most of the cysts are asymptomatic and often regress spontaneously. The clinical picture may vary depending on the organ affected by the parasitic infection, the size of the cyst and the interaction of the cyst with the neighboring organs. Our patient presented to the emergency department with the first complaint of abdominal pain and urticarial lesions. Early and timely detection of the progression to common symptoms during follow-up, even in patients presenting in the emergency department with the rarest symptoms of the disease, provides significant reductions in morbidity and mortality.

Anahtar Kelimeler : anaphylaxis , emergency department , hydatid cyst rupture

DO NOT SAY THAT THE YOUNG PATIENT DOES NOT HAVE PULMONARY EMBOLIA!!!

Ali Kablan

LOGIN: Pulmonary embolism (PE) is one of the main diseases that cause death in hospitalized patients even today [1]. Unspecified PE can result in death. In the past, it was mentioned that the mortality rate of missed PE cases was 5-30%. Non-specific signs and symptoms of PE make it difficult to diagnose in the emergency department [2]. Computed tomography pulmonary angiography (CTPA) is the reference method in the diagnosis of PE in the emergency department. It is the most sensitive diagnostic method, especially in high-probability cases [3]. Little is known in younger patient groups where the diagnosis of PE is not expected. Therefore, the value of CTPA in diagnosis comes to the fore.

CASE: A 25-year-old male patient who applied to our emergency department with the complaint of chest pain stated that his complaints had been for two days. Chest pain was stinging and pleuritic in nature. Chest pain was not accompanied by shortness of breath, cough, sputum and hemoptysis. The patient without comorbidity stated that he sat for a long time and played board games (okey etc.). There was no history of previous surgery and no long-term travel history. His vitals were stable, his saturation was 99% and his pulse was 100/min. In blood tests, CRP:61g/L(0-0.005), WBC:10x10^9/L(3.9-10.2), HGB:14.9g/dL (13.5-17.2), troponin:23ng /L(< 45), D-dimer (quantitative): 1.28mg/L(< 0.55). In CTPA taken to the patient; Filling defects consistent with PE were observed in the right lung middle lobe pulmonary artery, lateral and medial segmental branches, and basal segmental pulmonary arteries of the right lower lobe. In the right lung lower lobe posterior segment, a consolidation area with foamy ground glass areas is observed at the base of the pleura in the basal section, and the appearance is consistent with pulmonary infarction.

CONCLUSION: Although PE is rare, especially in patients under the age of 40, the most common risk factors in all age groups are immobility and recent surgery. In a study, previous history of venous thromboembolism was found at a higher rate in young patients, and the incidence of chest pain and hemoptysis was found more frequently in younger patients [4]. Even in young patients admitted to the emergency department, in the presence of chest pain and hemoptysis, CTPA should be performed without loss of time, as it is one of the first diagnoses to be considered in the differential diagnosis.

RESOURCES:

1. Carvalho Bricola, S.A.P., et al., Fatal pulmonary embolism in hospitalized patients: a large autopsy-based matched case-control study. Clinics, 2013. 68: p. 679-685.

2. Calder, K.K., M. Herbert, and S.O. Henderson, The mortality of untreated pulmonary embolism in emergency department patients. Annals of emergency medicine, 2005. 45(3): p. 302-310.

3. Hendriksen, J.M., et al., Diagnostic prediction models for suspected pulmonary embolism: systematic review and independent external validation in primary care. Bmj, 2015. 351.

4. Şen, N., et al., Pulmonary embolism in young and elderly patients: Clinical

5. characteristics, laboratory and instrumental findings and differences between age groups. 2010.

Miscarriage in the Emergency Department of a Refugee Woman with Vaginal Bleeding: A Case Report

Emre KUDU[1], Sinan KARACABEY[1]

[1]Marmara University Pendik Training and Research Hospital, Department of Emergency Medicine

Background: After the crisis in Syria in 2011 and the civil war that followed, many refugees have migrated. Many people live in poor conditions and do not receive good health care. Here, we will present a refugee who presented to the emergency department with vaginal bleeding, did not know that she was pregnant, and had a miscarriage in the emergency department.

Case Report: A 33-year-old female patient was admitted to the emergency department with the complaint of vaginal bleeding. She described that her bleeding started on the morning of admission and was in the form of leakage. The patient had immigrated to Turkey 2 years ago from Syria and described that she had not applied to the hospital for any reason for a long time. Her history is unremarkable for any internal disease. The patient could not remember the date of the last menstrual period, but said that she did not notice any delay. In the physical examination of the patient, the abdomen was soft, and no defense or rebound was detected. In her external examination, bleeding in the form of leakage from the vagina was observed, and there was no sign of trauma. The patient was consulted to the obstetrics and gynecology department. Meanwhile, the patient said that she had abdominal pain and miscarried in the emergency room with spontaneous bleeding (Figure 1). The patient was evaluated by obstetrics and gynecology, and was hospitalized for curettage.

Discussion: With the crisis in Syria in 2011, life in Syria has become difficult in many respects. One of the leading ones is access to health services and health education. A study conducted in northwest Syria in 2017 found that the number of obstetricians and gynecologists is very low (0.02 per 1000 people) and the public's knowledge about antenatal and prenatal care is very low. With the worsening of the conditions, refugees started to immigrate. Approximately 8 million Syrians continue their lives as refugees in other countries, especially in Turkey, Lebanon and Jordan.[1] Even after migrating, these people are socially disadvantaged as refugees, have higher substance and cigarette consumption during pregnancy, and tend to care less about antenatal visits. As a result, more pregnancy complications are seen and maternal and fetal mortality is higher.

In a study evaluating maternal mortality in refugees from 10 different countries, it was seen that the number of antenatal visits was lower in cases resulting in maternal mortality. It was emphasized that a good antenatal care and reproductive health education should be given in order to reduce both maternal and infant mortality and pregnancy complications.[2]

In a study conducted in our country, 7950 Turkish women and 620 Syrian refugees who were pregnant were compared. According to the results of the study, complications such as adolescent birth and low birth weight were found to be higher in Syrian refugees. These stem from both living in poor conditions and limited access to health care.[3]

In our case, a refugee with limited access to healthcare is presented. This person did not receive antenatal care and did not receive any pregnancy or family planning training. Unfortunately, the patient's pregnancy resulted in a miscarriage in the emergency department. A good antenatal care training and reproductive health training are essential for better maternal and fetal outcomes, especially in displaced persons such as refugees.

Keywords: Refugee, Pregnancy, Abortion, Reproductive Health

REFERENCES:

1. How many refugees are there in which country?- International Refugee Rights Association Accessed From: https://umhd.org.tr/page/hangi-ulkede-ne-kadar-multeci-var/341#:~:text=T%C3%BCrkiye'de%203%20milyon%20400,m%C3%BClteciye%20ise%20Avrupa%20kap%C4%B1lar%C4%B1n%C4%B1%20a%C3%A7m%C4%B1%C5%9F. Accessed Time: 25.10.2022.

2. Hynes M, Sakani O, Spiegel P, Cornier N. A study of refugee maternal mortality in 10 countries, 2008—2010. *International perspectives on sexual and reproductive health*. 2012:205-213.

3. Turkay Ü, Aydın Ü, Salıcı M, et al. Comparison of pregnant Turkish women and Syrian refugees: Does living as a refugee have an unfavorable effect on pregnancy outcomes? *International Journal of Gynecology & Obstetrics*. 2020;149(2):160-165.

Figure 1: Abortion material

SERUM IRON PARAMETERS IN PATIENTS WITH IRON DEFICIENCY ANEMIA, ANEMIC RHEUMATOID ARTHRITIS AND ANEMIC LIVER CIRRHOSIS PATIENTS

Perihan Ozkan Gumuskaya[1], Teoman Soysal[2]

[1]Internal Medicine Clinic, T.C. Ministry of Health, Prof. Dr. Cemil Tascıoglu City Hospital,Istanbul,Turkiye.

[2] Department of Hematology. Istanbul University, Cerrahpasa Faculty of Medicine, Istanbul, Turkiye.

Background and Aim: Iron deficiency anemia is the most common form of anemia in the world. Another types of anemias are anemias with chronic diseases and liver cirrhosis. When combined anemias coexist, diagnosis becomes difficult and an additional parameter is required. This parameter is "Serum Soluble transferrin receptor (sTfR)". We aimed to show the relationship between sTfR level and other iron parameters in patients with iron deficiency anemia, anemic rheumatoid arthritis and anemic liver cirrhosis, and to evaluate it as an alternative method to gold standart invasive bone marrow iron staining.

Material and method: Our study was carried out on 4 groups consisting of 18 patients with iron deficiency, 18 patients with rheumatoid arthritis and anemia, 18 patients with liver cirrhosis and anemia, and 18 healthy individuals. Iron (Fe) parameters, vitamin B-12, folate, C-reactive protein (CRP), sedimentation, Thyroid stimulating hormone (TSH), urea, creatinine, alanine aminotransferase (ALT), albumin, hemogram, peripheral smear and sTfR levels were studied.

Results: In our evaluation, sTfR level was significantly higher in patients with iron deficiency anemia compared to other groups ($p<0.01$). No significant correlation was found between sTfR and other parameters in the anemic patient group with rheumatoid arthritis. Negative correlation of sTfR with platelet number, transferrin saturation (TS) and ferritin ($r=0.019$); and positive correlation of MCV with iron levels ($r=0.005$) have shown that MCV, TS, Fe and ferritin act together with sTfR in patients with liver cirrhosis to show signs of iron deficiency anemia.

Conclusion: In the diagnosis of iron deficiency accompanying chronic disease or liver cirrhosis, the evaluation of the usual iron parameters together with the sTfR level will be a more reliable and perhaps an alternative approach to the determination of bone marrow iron score.

Key words: iron deficiency, chronic disease, sTfR

INTRODUCTION

Anemia is defined as a decrease in the amount of hemoglobin in the peripheral blood below the normal values for the age and sex of the person. The World Health Organization (WHO) defined anemia as a hemoglobin concentration below 12 g/dl in women and 13 g/dl in men in adults (1). Iron deficiency anemia is the most common form of anemia in the world. It is estimated to affect 30% of the world's population. In a study made in 1994, It is said that approximately 500 million people had iron deficiency anemia (2). Common causes of iron deficiency in etiology include menometrorrhagia, gastrointestinal bleeding, inadequate dietary intake, pregnancy, gastric achlorhydria, gastrojejunostomy (3). In daily practice, findings such as low serum iron level, high serum iron binding capacity (SIBG), decrease in ferritin level (<15 ng/ml), decrease in transferrin saturation (<16%) in a patient with anemia are the most frequently used parameters in the diagnosis of iron deficiency anemia. Anemia of chronic disease is the most common cause of anemia after iron deficiency and the most common type of anemia in hospitalized patients. Hematocrite is usually found between 25-35%. Less frequently, it is below 20% in 5% of cases. The factors that play a role in its development are the deterioration of iron flow from macrophages to plasma, a slight decrease in erythrocyte lifespan, the inability of the bone marrow to compensate for this hemolysis, the relative

deficiency of erythropoietin, the inhibition of erythropoiesis due to cytokines. Diagnostic criteria for anemia of chronic disease are *low iron level, *low serum iron binding capacity, *normal or high ferritin value, *transferrin saturation=10%-20%. Another common type of anemia is anemia accompanying liver diseases and is seen in approximately 75% patients with liver diseases (4). The reason for this is the transformation of normocytic normochromic erythrocytes into macrocytes and acanthocytes, with progressive lipoprotein abnormality and consequent lipid deposition in the erythrocyte membrane, the shortening of the life span of the erythrocyte, which loses its flexibility and structure by the conversion of acanthocytes into spherocytes in the spleen. Iron deficiency anemia in chronic liver diseases is caused by varicose veins and/or bleeding due to defective synthesis of coagulation factors. In chronic diseases (like rheumatoid arthritis), combined iron deficiency anemia is common due to gastrointestinal bleeding because of the use of nonsteroidal anti-inflammatory drugs (NSAIDs); so combined iron deficiency anemia is seen frequently (3). It is possible to demonstrate anemia with simple laboratory tests; but in cases where combined anemia coexists, diagnosis becomes difficult and additional tests are required.

Low iron level is not diagnostic alone in determining iron deficiency anemia; also, MCV (mean corpuscular volume), transferrin saturation, iron binding capacity and ferritin levels should be determined. However, these parameters can be affected by infection, inflammation, malignancy and liver diseases and they can not help for diagnosis of accompanying iron deficiency anemia (3). For example, in damaged liver, ferritin storage may be depleted and serum ferritin level may increase (5,6-11). In rheumatoid arthritis, ferritin can be found to be high as an acute phase reactant, even in the presence of iron deficiency (5,12). 2/3 Of chronic disease anemia is normocytic, 1/3 is microcytic. Although iron is low, since MCV>100fL due to megaloblastic change in liver patients, this parameter cannot be used. Transferrin saturation can decrease to levels (<16%) seen in iron deficiency anemia in acute and chronic inflammation (4). Also in older patients ferritin levels are higher than younger patients. For all these reasons, since bone marrow iron staining, which is considered the gold standard in the definitive diagnosis of iron deficiency anemia accompanying cirrhosis or a chronic disease, is an invasive procedure, a more practical, noninvasive and reliable parameter was needed. (3). This parameter is the level of "Serum Soluble transferrin receptor (sTfR)". It has been shown in many studies that serum sTfR level is not affected by chronic diseases (5,13-18). However, there are very few studies showing that this parameter is not affected by cirrhosis (19). Serum sTrF level is a reliable data in iron deficiency anemia in adults (20,21). It is important in the evaluation of anemic patients with high ferritin levels as an acute phase response (22-26). This receptor is a transmembrane protein. Cellular iron uptake occurs by endocytosis mediated by sTfR. During this endocytic cycle, TfR is externalized and a form of TfR devoid of cytoplasmic and transmembrane domains is formed in the serum. The serum sTfR concentration reflects the total body transferrin receptor level (27-34). The first response of cells to a decrease in iron level is an increase in transferrin receptor synthesis. Transferrin receptors are probably found on all cells, but in varying amounts. They are abundant on immature erythroid cells, placental tissue, and rapidly dividing cells (27). Since serum sTfR level is not affected by chronic diseases and liver cirrhosis unlike ferritin, iron treatment should be started when high serum stfr level is detected in these patients (35). In a study by Nagral et al. sTfR sensitivity was 91.6% and specificity 84.6% in the diagnosis of iron deficiency in chronic liver disease (36). Serum sTfR is a useful parameter in the determination of the treatable cause of anemia in chronic liver disease and in the detection of iron deficiency anemia in patients with anemic RA (37-38). A very small amount of blood sample is sufficient for the test, and sTfR, ferritin and transferrin can be evaluated in the same apparatus within 15 minutes (39). The reference range does not differ with gender and age (39). Higher concentrations were found only in black people and those living above sea level. An increase in serum sTfR is the most sensitive indicator of depleted iron stores and can be easily measured by the ELISA method (39-40). In this thesis study, we aimed to show the relationship between sTfR level and other iron parameters in patients with iron deficiency anemia, anemic rheumatoid arthritis and anemic liver cirrhosis, and to evaluate it as an alternative method to gold standart invasive bone marrow iron staining.

MATERİAL AND METHOD

This study included 18 patients with a diagnosis of iron deficiency anemia who applied to the outpatient clinic of the Department of Internal Medicine, Department of Hematology, 18 patients with rheumatoid arthritis and anemia followed in the rheumatology department, 18 patients with anemia with liver cirrhosis followed in the hepatology department of Cerrahpaşa Medical Faculty between August 2000 and April 2001. It included 18 healthy individuals who are compatible with age and gender characteristics. As the control group, healthy faculty students and individuals who applied to the internal medicine outpatient clinic with nonspecific complaints and did not have any pathological findings. All groups were told that this was a thesis study and their consent was obtained. Patients with hemochromatosis or alcoholic liver cirrhosis (41-42), those who use methotrexate in the treatment of RA, those who have used iron preparations in the last 3 months, those with hypothyroidism, and those with signs of dehydration were not included in the study. 12 Of the patients in the study were male and 42 were female, and their ages ranged from 19 to 73 (mean: 40.5±13.6). The control group consisted of 6 men and 12 women, and their ages ranged from 19 to 65 (mean: 37.4±16.2). In the study the 1. Group was patients with iron deficiency anemia, the 2. Group was anemic patients with rheumatoid arthritis, the 3. Group was anemic patients with liver cirrhosis and the 4. Group was healthy control. Iron (Fe), iron binding capacity (FeBC), ferritin, vitamin B 12, folate, C-reactive protein (CRP), sedimentation, Thyroid stimulating hormone (TSH), urea, creatinine, alanine aminotransferase (ALT), albumin, hemogram, peripheral smear and sTfR levels were studied from each person. Urea, creatinine, alt, albumin and crp parameters were studied on Olympus Au 800 autoanalyzer and Diasis Diagnostic System (dds) kits were used in the tests. iron, iron binding capacity was studied in Hitachi-704 autoanalyzer and Biotrol Diagnostic kits were used in the tests, TSH value was studied in CIBA-CORNING (ACS-180) autoanalyzer and Bayer Vital GmbH kits were used. All these blood parameters were studied on the day the blood samples were taken from the patients, and the serums separated for the sTfR level were stored at -70 degrees until the date these parameters were studied. Immunoassay (ELISA) (R&D Quantikine IVD) kits were used in the determination of sTfR.

Statistical analysis:

In the statistical analysis of the data Kruskal-Wallis test was used to determine the age distribution of the patients, the Chi-Square test was used to determine the gender distribution, ANOVA was used for the comparisons between the groups, and the Spearmen correlation test was used for the evaluation of the groups within themselves. $p < 0.05$ was considered statistically significant.

Ethical approval:

All procedures performed in the study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

RESULTS:

In our evaluation, there was no significant difference between the groups in terms of hemoglobin, hematocrit levels and also age and sex. While MCV was significantly lower in iron deficiency than the other patient and control groups, it was found to be significantly higher in liver cirrhosis than rheumatoid arthritis and the control group ($p<0.05$). RDW was found to be significantly higher in the patient groups than the control group. There was no significant difference between the patient groups. Iron levels were found to be significantly lower in iron deficiency anemia than in liver cirrhosis cases and control group, whereas in RA cases, liver cirrhosis cases and control group; It was also found to be significantly lower in liver cirrhosis than the control group ($p<0.01$). In iron deficiency anemia, ferritin levels were found to be significantly lower than the other groups, while the differences between the other groups were not significant. SIBC was found to be higher in iron deficiency anemia cases than in all groups, and lower in RA and cirrhosis cases than controls. In the intergroup evaluation, transferrin

saturation was found to be significantly lower in iron deficiency anemia than RA ($p<0.05$), liver cirrhosis ($p<0.01$) and control groups ($p<0.01$). Transferrin saturations of RA patients were found to be lower than those of cirrhosis and healthy patients. sTfR level was 51.67+/-17.08nM/L in the control group. sTfR level was significantly higher in patients with iron deficiency anemia compared to other groups ($p<0.01$). No significant correlation was found between sTfR and other parameters in the anemic patient group with rheumatoid arthritis. Negative correlation of sTfR with platelet number, transferrin saturation (TS) and ferritin ($r=0.019$); and positive correlation of MCV with iron levels ($r=0.005$) have shown that MCV, TS, Fe and ferritin act together with sTfR in patients with liver cirrhosis to show signs of iron deficiency anemia.

DISCUSSION:

Anemia is frequently encountered in hospitalized or outpatient patients as a result of the high prevalence in the community and the routine usage of blood count in almost every health institution (4). Iron deficiency anemia is the most common anemia in the world. Anemia of chronic disease and the differential diagnosis of iron deficiency with inflammation are among the problems encountered. Almost all patients with RA develop anemia of chronic disease and iron deficiency is encountered in up to 75% of these patients (43-47). Iron deficiency anemia is frequently seen in patients with liver cirrhosis due to bleeding. On the other hand, the reliability of parameters such as MCV, RDW, serum iron and SIBC levels, and ferritin in the diagnosis of iron deficiency in chronic disease anemia and chronic liver diseases are controversial. MCV is one of the frequently used parameters in the diagnosis of anemia.

Although it differs with age and gender, values below 80 fL were evaluated as low in our study. MCV<80 was found in all cases in group 1, MCV<80 fL in six cases in group 2, MCV> 80 fL in 12 cases. 80fL, only two cases in group 3 had MCV<80fL. In the study of Punnonen et al., it was stated that MCV is a reliable parameter in demonstrating iron deficiency ($r=0.88$) (48). In the study of Celkan et al. in our country, a relationship was found between sTfR and MCV in patients with juvenile RA. It has been stated that MCV is a reliable parameter in the differentiation of iron deficiency anemia and anemia of chronic disease in RA. It has been stated that MCV value is low in anemia of chronic disease, but this value will decrease further if there is accompanying iron deficiency anemia (49). In our study, MCV was found to be 68.33 ± 68.33 fL in group 1, 80.49 ± 6.41fL in group 2, 91.32 ±8.9fL in group 3, and 84.69 ± 3.74 fL in group 4. Although sTfR and MCV showed a significant (-) correlation ($r=0.038$) in group 1, no such correlation was observed in group 2, but 6 cases with low MCV values in this group (case no: 2, 6, 10, 13, 16, 17) in 5 of them, the sTfR value was found to be above the mean sTfR value found in the controls (51.6 ±17). Ferritin value was not below normal limits in any of these cases. In our study, the fact that MCV did not show a significant correlation with sTfR, which is an important indicator of iron deficiency in this case group, may be related to the low number of cases. MCV value was found to be significantly higher in patients with anemic cirrhosis than in all groups ($p<0.05$). This finding is consistent with the general character of anemia in liver cirrhosis. However, when the relationships between the parameters belonging to the same patient group were examined, it can be thought that MCV value in this case group moved in the same direction as serum iron, in other words, towards defining iron deficiency. No similar information about MCV was found in the literature. RDW is one of the frequently used parameters in anemia. The RDW value was found to be 16.9 ± 2.22% in the 1. group, 16.44± 2.52 % in 2. Group, 16.4 ±2.68% in the 3rd group, 12.38 ± 0.64% in the 4. Group. In the control group it was found to be significantly lower than the other subjects ($p<0.05$), between the first, second and third groups. no significant difference was observed. Although it can be thought that RDW can be used to support iron deficiency anemia with these findings, it should be kept in mind that it produces similar changes in other disease groups, therefore it should be evaluated together with other diagnostic parameters. When serum iron is taken into account, there is no difference between the iron deficiency anemia group and the group with chronic disease and anemia, which is not different from the classical data. on the other hand, it is seen that SIBC differs significantly between these two groups, and when iron deficiency anemia, liver cirrhosis and controls are

compared, there are significant differences in terms of both serum iron and SIBC. In patients with RA and liver cirrhosis, serum iron and SIBC were also found to be significantly lower than controls. These findings are related to the general diagnostic features of the case groups.

SIBC was found to be significantly higher in group 1 than the other groups ($p<0.01$). this is an expected finding and is consistent with the literature (50). There was no significant difference between groups 2 and 3, but a significant decrease was observed in both groups compared to the control group ($p<0.01$). SIBC was not found to be associated with sTfR in group 2, and it is thought to be unreliable in the diagnosis of iron deficiency accompanying RA. On the other hand, in the 3rd group, it was observed that SIBC showed a (-) correlation with TS and ferritin. This finding suggests that SIBC may be suitable to define iron deficiency in patients with liver cirrhosis.

CONCLUSION:

In the diagnosis of iron deficiency accompanying chronic disease or liver cirrhosis, the evaluation of the usual iron parameters together with the sTfR level will be a more reliable and perhaps an alternative approach to the determination of bone marrow iron score. In order to reach more precise judgments on this issue, studies with larger case numbers are needed that will allow in-group comparisons.

Key words: iron deficiency anemia, chronic disease, liver cirrhosis, sTfR

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

1- D J Weatheral, AB Provan Haematology, Red cells I: Inherited anemias . The Lancet 2000; 355. 1169-1175.

2- D Provan, D Weatheral Haematology, red cells II: Acquired anemias and polycythemia. The Lancet 2000; 355. 1260-68.

3- JP Kushner, TE Andreoli, GL Mandell, JF Murray, DG Nathan et al. Normochromic Normocytic Anemias. Cecil of Textbook of medicine, 21 Th Ed Philadelphia, WB Saunders, 1992.

4- N Akman. Erişkinlerde anemilere genel yaklaşım; Öngören Ş. Kronik Hastalıklar Anemisi ve Diğer Sekonder Anemiler. T Soysal, LY Soycan, İÜ. CTF STE Dizisi,no 25.2001.

5- BJ Ferguson, BS Skikne, KM Simpson, RD Baynes, JD Cook.Soluble transferrin receptor distinguishes the anemia of chronic disease from iron deficiency anemia. J.Lab Clin Med. 1992; 119:385-90.

6- EM Walker, SM Walker. Effect of iron Overload on the immüne system. Ann ClinLab Sci 2000; 30: 354-65.

7- Z Cao, Y Bai, X Yang, J Liu, B Li et al. Study of iron metabolism abnormality in the hepatocyte damage of hepatitis B. 2001;9: 37-9.

8- EA Romanova, AA Levina, MM Tsibulskaia, LL Eremenko, IB Kaplanskaia et al. Indices of iron metabolism in liver homogenates and leukocytes. Clin Lab Diagnosis 2000; 4:24, 33-4.

9- AA Levina, LA Zheebtsov, MM Tsibulskaia,IV Korol, AP Andreeva et al. Study of iron metabolism in chronic diffuse disease of liver. Gematol Transfusiol, 1990; 35:20-2.

10- F Konikoff, Y Shongelfeld, DA Isenberg, F Theodur, C Moroz. Placental type isoferritins in chronic liver diseases. Hepatogastroenterology 1987; 34:65-7.

11- S Nakano, T Kumado, K Sugiyama, H Watahiki, I Takeda et al. Clinical significance of serum ferritin determination for hepatocellular cancer. Am J Gastroenterology 1984; 79:623-7.

12- GM Brittenham, R Hoffman, EJ Benz, SJ Shattil, B Furie et al.Disorders of iron metabolism:ıron deficiency and overload. Hematology Basic Principles and Practice. 1999; 83:765-73.

13- JD Cook. Defining optimal body iron, Proc Nutr Soc 1999; 58:489-95.

14- RA Feelders, EP Kuiper-Kramer, HG Van Eijk. Structure, function and clinical significance of transferrin receptors. Clin Chem lab med 1999; 37: 1-10.

15- M Vernet. The transferrin receptor:ıts role in iron metabolism and its diagnosis,utility. Ann Biol Clin 1999; 57:1, 9-18.

16- H Khumalo, IA Gomo, VM Moyo, VR Gordeuk, T Saungwene et al.Serum transferrin receptors are decreased in the presence of iron overload. Clin Chem 1998; 44: 40-1.

17- N Ahluvalia. Diagnostic utility of serum transferrin receptors,measurement in assessing iron status. Nutr. Rev 1998; 56:133-41.

18- G Weiss. Iron and anemia of chronic disease. Kıdney Int Suppl 1999; 69: 12-7.

19- A Nagral, AB Mehta, AT Gomes, G Ellis, BF Jackson et al. Serum soluble transferrin receptor in the diagnosis of the iron deficiency in chronic liver disease. Clin Lab haematol 1999; 21: 93-7.

20- CC Hou, S Wu, T Chen, WC Young, YY Ng. Is serum transferrin receptor a sensitive marker of iron depletion in patients with iron deficiency anemia and haemodialysis patients.1999; 62: 189-94.

21- V Revel, H Tamary, E Broide, M Zoldan, G Dinari et al. Soluble transferrin receptor in children and adolescent with inflamatory bowel disease. Eur J Pediatr 2000: 159: 585-9.

22- K Punnonen, A Rajamaki. Evaluation of iron status of Finnish Blood donors using serum transferrin receptor. Trans Med 1999;9: 2,131-4.

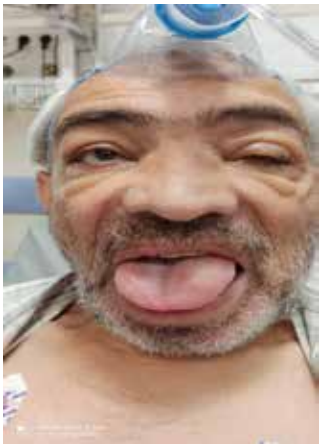
Diagnosis Of Hereditary Angioedema in Patients Applying with Angioedema

Sevilay Biyikli[1] , Murside Yayli[1] , Mustafa Yasin Okten[1] , Gulbahar Guler Orucoglu[1] , Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background and aim: Hereditary angioedema, involving the skin, intestinal submucosa and upper respiratory tract; it is an autosomal dominant disease with recurrent attacks of angioedema without pruritus and urticaria. It usually occurs due to C1 esterase inhibitor deficiency. In our case, we aimed to provide information about the diagnosis and management of this disease in the emergency department conditions.

Case: A 62-year-old male patient presented with a sudden onset of swelling of the face and tongue.He stated that he had experienced similar attacks a few more times before, but that it went away on its own without applying to the hospital and without using any medication. There was no additional disease, there was no feature in the family history. On examination, the patient's vital values were normal and there was swelling covering only the left face and left tongue half. There was no uvula edema. Lung sounds were normal bilaterally. Antihistamine and steroid treatment was administered to the patient whose laboratory tests were normal and allergen exposure was suspected, but there was no response to treatment. In the fiberoptic examination performed by an otolaryngologist, mild edema was detected in the larynx and vocal cords. There was no regression or progression in the patient's clinical follow-up in the emergency department. The patient was admitted to the otolaryngology service with the preliminary diagnosis of hereditary angioedema for further examination and treatment.



Conclusions: The diagnosis of hereditary angioedema should be considered in cases of recurrent and unexplained angioedema, unresponsive to antihistamines, not accompanied by urticaria, sometimes developing colic-like abdominal pain as a result of laryngeal or intestinal edema, and a positive family history. It should be kept in mind that administration of adrenaline, corticosteroids, and antihistamines to these patient groups is ineffective and C1 inhibitor concentrate and FFP (Fresh frozen plasma) are life-saving. In addition, airway safety should be ensured in the management of these patients, and the need for tracheostomy should be considered in a situation that would prevent intubation due to possible laryngeal edema.

References:

https://dergipark.org.tr/tr/download/article-file/1007991

https://acilci.net/herediter-anjiyoodem/

https://www.aid.org.tr/hastaliklar/alerji-ve-bagisiklik-sistemi-hastaliklari/herediter-anjioodem

Prof. Dr. Başar Cander Acil Tıp Temel Başvuru Kitabı 2. Baskı Kısım 10 Bölüm 1

Pneumomediastinum, A Rare Complication Of The COVID-19 Vaccine

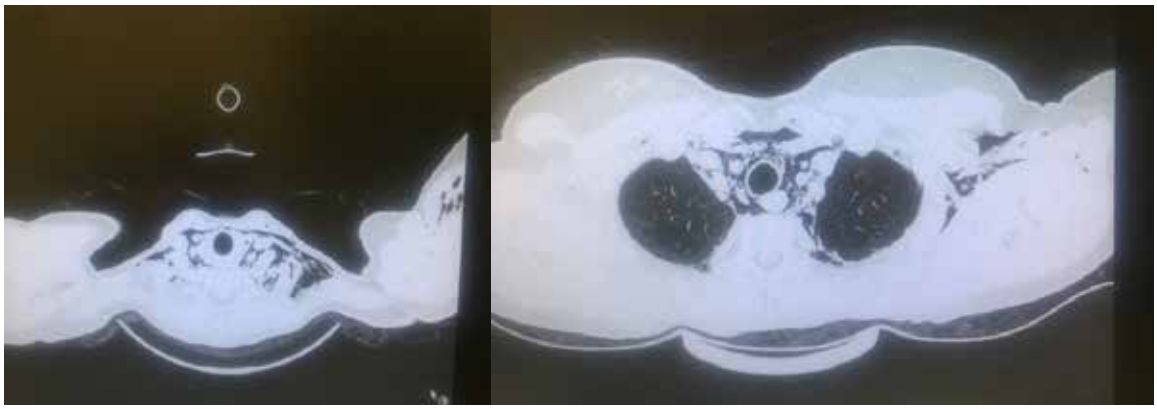
Ali Sarıdaş , Kübra Demir Çim

Prof. Dr.Cemil Taşcıoğlu City Hospital, İstanbul, Turkey

Introduction: The Covid-19 pandemic is a new disease that has shaken the world. Different clinical pictures that cannot be sharply delimited may lead to elucidation of the pathogenesis of the disease and new vaccine treatment studies. We aimed to present a Covid-19 vaccinated patient with a rare post-vaccine spontaneous pneumomediastinum and diffuse soft tissue emphysema in the left axillary region and left half of the thorax.

Key Words: Covid-19 aşısı, pnömomediastinum, subkütanöz amfizem

Case Report: 23 years old, female, known Asthma patient, no chronic medication use, presented with the complaints of shortness of breath and cough, which started 4-5 hours after the first injection of the 3rd dose BNT162b2 COVID-19 vaccine (Pfizer-BioNTech) 2 days ago and lasted for 2 days. Blood pressure: 140/90 Pulse: 130/minute Respiratory Rate: 40/minute, spo2: 95 fever: 36 crp: 33 lymphocytes: 600 wbc: 18.1 neutrophils: 17 thousand. It does not describe weakness, joint pain, loss of taste and smell. On physical examination: Palpation crepitation was present on both sides of the neck. , Sibilan rhonchus present. The patient was treated with bronchodilator and steroid. Computed tomography showed widespread pneumomediastinum extending under the skin. Mediastinal emphysema was present. No mediastinal abscess or specific viral pneumonia was observed. Diffuse soft tissue emphysema was observed in the soft tissues in the left axillary region and left half of the thorax. A pectus excavatus deformity was observed in the anterior thoracic wall. Broad-spectrum parenteral empirical antibiotic treatment for mediastinitis was started in the ward. He was admitted to the ward with the diagnosis of pnomomediastinum subcutaneous emphysema.



Conclusion: Physicians working in the pandemic unit should be prepared for atypical applications; Different examination findings should be kept in mind in terms of COVID-19 vaccine.

Progression from nasal congestion to mortality Intracranial abscess as a complication of sinusitis

Burak Çelik[1] , Sercan Eroğlu[2]

[1]Kirsehir Training and Research Hospital, Department of Emergency Medicine

[2]Ahi Evran University, Faculty of Medicine, Department of Emergency Medicine

Introduction

Although complications of sinusitis are rare, they can cause high morbidity and mortality as a result of spread to neighboring tissues. Knowing in which ways and where the sinusitis may spread and with which complications the sinusitis patient may present is important in the diagnosis and treatment process (Table 1). However, recovery and recovery is possible by providing ventilation (oxygenation) and drainage of the sinus.[1,2]

Table 1. Complications of sinusitis

Orbital complications	Intracranial complications	Pulmonary complications	Other complications
Periorbital cellulitis	Meningitis	Bronchitis	Osteomyelitis
Orbital cellulitis	Epidural abscess	Asthma	Dacryocystitis
Subperiosteal abscess	Subdural abscess	Cystic fibrosis	Superior orbital fissure syndrome
Orbital abscess	Cavernous sinus thrombosis		Mucocele
Cavernous sinus thrombosis	Cerebral abscess		

Orbital Complications

Most orbital infections originate from the paranasal sinuses due to their close proximity. While these complications are usually seen in acute sinusitis in children, they are seen in acute attacks of chronic sinusitis in adults. Bacterial infections of the orbit, in two regions in the orbit; It may be in the preseptal region in front of the orbital septum or in the postseptal region behind it. The periosteum of the facial bones continues as the septum in the orbit. This septum, which has no lymphatics except for a few veins, forms a good barrier that prevents the infection from spreading to the deep tissues of the orbit.[3] Preseptal infections in front of this barrier are usually caused by skin infections such as erysipelas, impetigo, or traumatic laceration and foreign bodies. In contrast, 70-80% of postseptal infections originate from the paranasal sinuses. Periorbital cellulitis, orbital cellulitis, subperiosteal abscess, orbital abscess, cavernous sinus thrombosis is among the orbital complications that can be seen.

Intracranial Complications

Intracranial complications that can be seen after sinusitis are meningitis, epidural-subdural abscess, and acute- or chronic brain abscesses.[2,4] Among these, brain abscesses are the most common. The routes of spread of infection into the intracranial space are through the posterior wall of the frontal sinus and retrograde spread through the ophthalmic artery. The main symptoms that can be seen in patients are fever, mental changes, neurological findings and papilla edema. Symptoms such as bradycardia, papilloedema, nuchal rigidity, hypertension and nausea and vomiting due to increased intracranial pressure are not very typical. Among other complications, the most common complication of acute sinusitis is chronic mucosal inflammation and mucosal hypertrophy. These formations, called mucocele, usually develop in the frontal sinus and ethmoid sinus. Dacryositis usually occurs in adults and antibiotics are usually sufficient.

Case

19 years old male patient, who had a headache for 3-4 days, applied to the emergency department with the complaint of fever and confusion. Amoxicillin/clavulanate and paracetamol treatment was started 1 day before

due to sinusitis. The patient did not have a history of any disease and did not have any medication that he used regularly. On examination, the general condition of the patient is blurred, noncooperative, pupillary isochoric, IR+/+, cranial nerve examination is normal, nuchal rigidity is present, left hemiparesis. vitals; blood pressure was 110/60 mmHg, heart rate was 110/min, respiratory rate was 17/min, fever was 38.9 C, and oxygen saturation was 95. In complete blood count; leucocytes were 5,360 mm3, 56.1% neutrophils, 23.7% lymphocytes, hemoglobin 13.3 g/dl, platelets 139.000 mm3, Procalcitonin 0.144 ng/mL, CRP 16 mg/L. COVID-19 PCR test was negative. As imaging studies, remarkable sections in the patient's brain CT (Computed Tomography) are seen in Figures 1 and 2. In sections from the supratentorial region; sulcus and fissures were simplified and cortical - subcortical density decreases. A widening of the extraaxial distance was observed in the right frontoparietooccipital and an increase in fluid was observed. This situation was interpreted in favor of subacute subdural hematoma. In addition, air images in the extraaxial distance at the vertex level were remarkable. Mucosal thickening was observed in the paranasal sinuses.

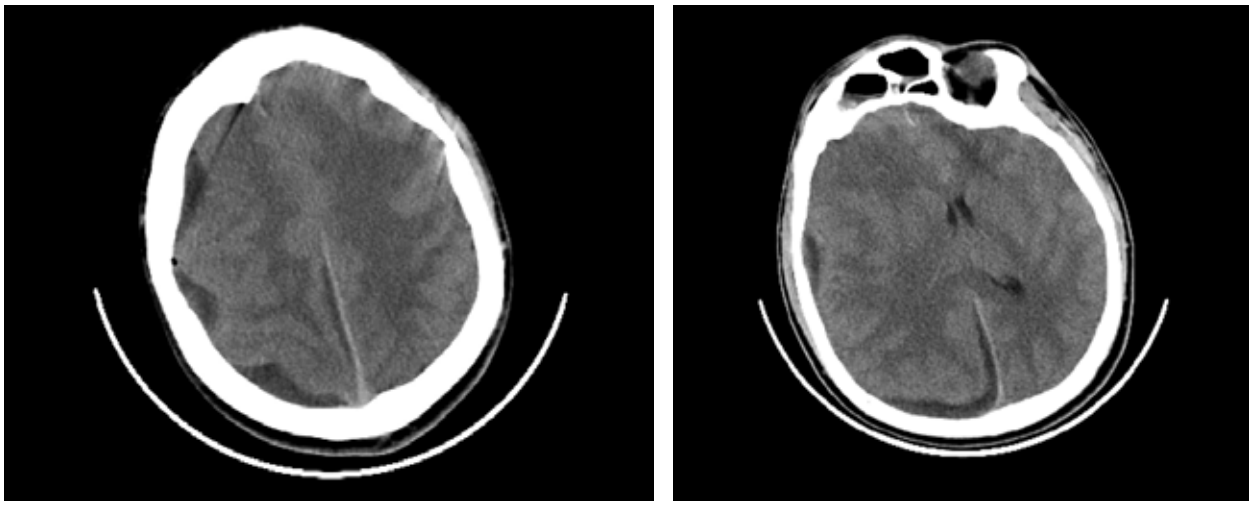


Figure 1 and 2. In the brain CT images of the patient, enlargement is observed in the extraaxial distance and there are air densities in the subdural area.

After CT, the patient underwent MRI (Magnetic Resonance Imaging) examination. MRI imaging revealed a shift in the midline, an image compatible with intracranial hematoma and abscess (Figure 3).

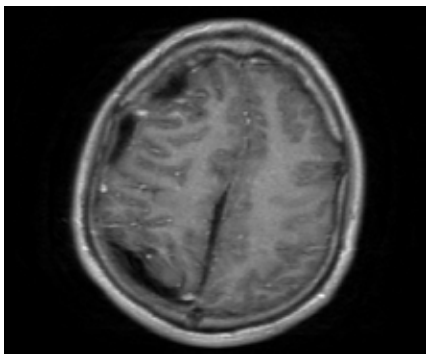


Figure 3. Findings consistent with hematoma and abscess in the brain MRI of the patient.

Discussion

Brain abscess generally occurs when an infection originating from another part of the body reaches the brain through the neighborhood or blood. Apart from this, it can also be seen in head trauma secondary to trauma. Intracranial complications related to sinusitis are meningitis, intracranial abscess, and subdural empyema. Fever,

headache, personality change, seizures, nausea, vomiting, neck stiffness, photophobia are the main symptoms of brain abscesses. Streptococci, Staphylococcus aureus, H. influenza and Bacteroides species are the most frequently detected agents[5,6]. The presence of confusion in addition to fever in our case suggested a more serious condition in sinusitis that was not clinically appropriate. The patient's history of complaints for 4-5 days suggested that a progressive condition developed.

CT is a useful test for imaging intracranial complications secondary to infection. In our case, the first preferred imaging method was CT[7]. MR Venography is an adjunct investigation in cases suggestive of intracranial abscess or cavernous sinus thrombosis[8]. We applied for this test in our case.

Although complications of sinusitis are rare, they can cause life-threatening situations. In such cases, early diagnosis and treatment play an important role. In our patient, who presented with fever and consciousness change, it was seen that he had recently been diagnosed with sinusitis when the reasons for admission were examined. As a result of early imaging and consultation, the patient was quickly hospitalized and his treatment started.

Conclusion

The incidence of intracranial complications from acute frontal sinusitis has decreased with improved antimicrobial and surgical treatment. However, the physician should maintain keen awareness and thoroughly investigate possible signs of intracranial dissemination[9,10]. Cerebral abscess is often difficult to diagnose. "Classic" intracranial hypertension associated with high fever is usually absent and sometimes absent. Although abscesses are serious and potentially fatal, early diagnosis, medical (antibiotics) and surgical treatment (puncture and/or surgical excision) can be completely cured in more than 50% of cases[9]. Sinusitis should be kept in mind in patients presenting with headache complaints. Care should be taken in terms of possible complications and the patient should be informed.

References

1. Lund VJ, Kennedy DW. Staging for rhinosinusitis. Otolaryngol Head Neck Surg 1997; 117: S35-40.

2. Lusk RP. Pediatric rhinosinusitis. In: Byron J, Bailey JB, editors. Otolaryngology,

head and neck surgery. Vol. I. Philadelphia: Lippincott Company; 1993. p. 802-7.

3. Stankiewich JA, Newell DJ, Park AH. Complications of inflammatory diseases of the sinuses. Otolaryngol Clin North Am 1993; 26: 639-53.

4. Parsons DS, Wald ER. Otitis media and sinusitis: similar diseases. Otolaryngol Clin North Am 1996; 29: 11-25.

5. Kombogiorgas D, et al: Suppurative intracranial complications of sinusitis in adolescence. Single institute experience and review of literature. Br J Neurosur. 2007;21:603–609.

6. Osborn MK, Steinberg JP. Subdural empyema and other suppurative complications of paranasal sinusitis. Lancet Infect Dis. 2007;7:62–7.

7. Blumfield E, Misra M: Pott's puffy tumor, intracranial, and orbital complications as the initial presentation of sinusitis in healthy adolescents, a case series. Emerg Radiol. 2011;18:203–210.

8. Alvis Miranda H, et al. Brain abscess: current management. J Neurosci Rural Pract. 2013;4:S67–81.

9. Reader ME, et al. Frontal sinusitis with chronic epidural abscess: a case presentation. Ear Nose Throat J. 1992 Nov;71(11):599-603.

10. Chenran Zhang, et al. A retrospective study on the aetiology, management, and outcome of brain abscess in an 11-year, single-centre study from China. BMC Infect Dis. 2014; 14: 311.

RETROSPECTIVE EVALUATION OF CASES WITH CARDIOPULMONARY RESUSCITATION IN THE EMERGENCY DEPARTMENT

Berkan DEMİRCİ, Latif DURAN

Ondokuz Mayıs University Faculty of Medicine, Department of EM. SAMSUN

Introduction

Cardiopulmonary arrest (CPA) is one of the mortal conditions that can be seen at any age and is a public health problem across the world (1). The aim of cardiopulmonary resuscitation (CPR) is to obtain the return of spontaneous circulation (ROSC) and for patients to return to their normal lives with a good neurologic recovery (2,3). CPR has been used in clinical practice for more than 60 years and is being improved in recent years. Despite the latest published guidelines about CPR, there are no existent satisfying studies, particularly about discharge and survival rates following cardiac arrest so far (4). No study reveals CPR practised in our hospital yet therefore, this study aims to contribute to the literature by determining elements; the demographic and clinical features of the patients who underwent CPR in the emergency department of our hospital, the number and rate of successful CPR, the discharge rate, neurological recovery outcomes in patients attaining ROSC following CPR, and factors affecting prognosis and survival.

Patients and Method

Retrospectively, it was detected that 416 CPA cases exist in two years (2017-2018) in the emergency department. The study was carried out with a total of 371 patients, excluding the patients under the age of 18, the patients considered deceased on arrival, and 45 patients with insufficient data available. Patients who underwent CPR had grouped according to the features; age (18-65 years, over 65 years), gender, location of arrest (in-hospital, out-of-hospital), arrest rhythm (asystole, PEA, VF, nVT), duration of CPR (0-20 min, >20 min), and CPR result (ROSC or exitus). The distribution of the patients who underwent CPR according to months of the year and hours of the day, their comorbid diseases, the cause of arrest, defibrillation and endotracheal intubation rates were examined. The last status in the emergency room (hospitalization to intensive care or death), short and long-term survival rates, factors affecting survival, and neurological recovery results in the patients attaining ROSC following CPR were analyzed. The cerebral performance scale (SPS) was used to determine the neurological recovery outcome of the patients following CPR. The data were analyzed with IBM SPSS V23.

Results

In our study, 53,6% of the cases were males, and 46,4% were females. We detected the in-hospital cardiac arrest (IHCA) rate to be 75,2% and the out-hospital cardiac arrest (OHCA) rate to be 24,8%. While the most common arrest rhythm was asystole (61,7%), the shockable rhythm (VF/nVT) rate was 10,8%. Cardiac-caused cardiopulmonary arrest (CPA) cases were observed at a rate of 35,6%. Demographic and some clinical features of the patients are indicated in Table 1.

Table 1. Distribution of demographic and some clinical data in CPA cases

	n	%
Age groups		
18-65 years	144	38,8
over 65 years	227	61,2
Gender		
Male	199	53,6
Female	172	46,4
Arrest location		
Out-hospital	92	24,8
In-hospital	279	75,2
ED Red Area	158	56,6
ED Intensive Care	121	43,4
Arrest rhythm		
VF	33	8,9
nVT	7	1,9
PEA	102	27,5
Asystole	229	61,7
Defibrillation		
Yes	53	14,3
No	318	85,7
Endotracheal Intubation		
Yes	356	96,0
No	15	4,0
CPR duration		
0- 20 min	118	31,8
>20 min	253	68,2

The rate of ROSC following CPR was 39,4% in patients with cardiac CPA and 34,3% in CPA patients of non-cardiac origin. While the rate of ROSC following CPR was 58,5% in defibrilated cases, it was detected as 32,4% in non-defibrilated cases. It was determined that the number of patients discharged following CPR application in both in-hospital and out-of-hospital CPA patients was higher in the patient group with a CPR duration of 0-20 minutes. The rate of ROSC following CPR was 36,9% in IHCA cases, while it was 33,7% in OHCA cases. In cases with ROSC, survival rate was 59,7% in 0-24 hour, 32,1% 1-30 day, 8,2% in 1-12 month. Among the patients who attained ROSC, 6 (5,7%) patients from the IHCA group and 4 (13,8%) patients from the OHCA group were discharged. Neurological recovery according to SPS of 10 patients discharged from the hospital, resulted in SPS-1 in 7 patients and SPS-3 in 3 patients, while brain death (SPS-5) occurred in 6 patients who attained ROSC following CPR.

Discussion

Pandian et al. In a study conducted with 254 patients in which they analysed sudden CPA cases seen in the emergency department of a tertiary hospital for a period of 1 year, they detected the rate of IHCA to be 73,6%

and the rate of OHCA to be 26,4% (5). In our study, the annual CPA rate was 2,2 per thousand, the mean age was 68,8 years, the male gender ratio was 53,6%, the IHCA rate was 75,2%, and the OHCA rate was 24,8% as well as these results are consistent with the literature. Ong et al. In a study conducted with 727 patients, they reported that the first recorded heart rhythm in the emergency room in CPA patients was 69,2% asystole, 19% PEA, 7% VF, and 1% nVT (6). In our study, the results indicated arrest rhythm as 61,7% asystole, 27,5% PEA, 8,9% VF and 1,9% nVT which were similar to the literature data. ROSC rates can vary considerably between different communities. For instance, while it is 43,8% in Germany, the Pan-Asian resuscitation outcomes study (PAROS) reports the ROSC rate as 8,3%. ROSC rates have been reported as 38% in Switzerland, 21% in Italy, and 50% in Finland (7). Zive et al. In their study in which they explored the survival of 85,553 OHCA cases that occurred in a 4-year period of time in 10 geographic regions in North America, they reported the rate of ROSC in the emergency department as 14,8%-47,8% (8). Conformably to the literature, the rate of CPR in our study was 37,6% in IHCA cases, 31,5% in OHCA cases, 17,4% in IHCA cases in the emergency department intensive care unit, and 51,9% in the emergency red area. This study is significant as it is the first study to research CPR cases undergone in the emergency department of our hospital. The constraints of the study are that it is a retrospective study, only 2 years time period was researched for the CPA cases, and some cases could not be included in the study due to lack of data. Improvements are required in the documentation of CPR interventions.

Conclusion

In this study, CPA cases are more common in the male gender. CPA is most commonly caused by cardiac causes. In IHCA cases, the rate of ROSC following CPR is higher. CPR is more successful in patients with coronary artery disease and hypertension as comorbid diseases, contrary to the lower success rate in patients with malignancy. Survival rates and neurologic recovery outcomes are better in cardiac-induced CPA cases. Shockable arrest rhythm, CPR duration of fewer than 20 minutes, and defibrillation in patients with OHCA increased survival.

References

1. Lee SY, Song KJ, Do Shin S, Hong KJ. Epidemiology and outcome of emergency medical service witnessed out-of-hospital-cardiac arrest by prodromal symptom: Nationwide observational study. Resuscitation. 2020.

2.Ozcan V, Demircan C, Engindeniz Z, Turanoglu G, Ozdemir F, Ocak O, et al. Analysis of the outcomes of cardiopulmonary resuscitation in an emergency department. Acta cardiologica. 2005;60(6):581-7.

3.Hanif AA, Rachman IA, Yuwono HS. Factors influencing the success rate of cardiopulmonary resuscitation. Althea Medical Journal. 2015;2(4):615-9.

4.Xue J-k, Leng Q-y, Gao Y-z, Chen S-q, Li Z-p, Li H-p, et al. Factors influencing outcomes after cardiopulmonary resuscitation in emergency department. World journal of emergency medicine. 2013;4(3):183.

5.Pandian GR, Thampi SM, Chakraborty N, Kattula D, Kundavaram PPA. Profile and outcome of sudden cardiac arrests in the emergency department of a tertiary care hospital in South India. Journal of emergencies, trauma, and shock. 2016;9(4):139

6. Ong MEH, Tiah L, Leong BS-H, Tan ECC, Ong VYK, Tan EAT, et al. A randomised, double-blind, multi-centre trial comparing vasopressin and adrenaline in patients with cardiac arrest presenting to or in the Emergency Department. Resuscitation. 2012;83(8):953-60.

7. Liu N, Ong MEH, Ho AFW, Pek PP, Lu T-C, Khruekarnchana P, et al. Validation of the ROSC after cardiac arrest (RACA) score in Pan-Asian out-of-hospital cardiac arrest patients. Resuscitation. 2020;149:53-9.

8. Zive D, Schmicker R, Daya M, Kudenchuk P, Nichol G, Rittenberger J, et al. Survival and variability over time from out of hospital cardiac arrest across large geographically diverse communities participating in the Resuscitation Outcomes Consortium. Resuscitation. 2018;131:74-82.

Suspicious Case of a Body packer

Orçun ATAY, Cihan BEDEL, Fatih SELVİ, Günay YILDIZ

Antalya Training and Research Hospital

INTRODUCTION: Drug trafficking by body-concealment first entered the literature some 50 years ago and is a growing serious problem internationally. Body packers often inject illicit drugs including roin, cocaine, marijuana and other marijuana derivatives by mouth or in the rectum, vagina, bowel, ear, etc. They fill them by hiding them inside the anatomical holes. Obstruction, perforation or even death are the common complications encountered when packages are ruptured because the dose contained in them can exceed the toxic dose for humans by several times. We present an asymptomatic body packer case diagnosed with a detailed history, physical examination, and radiological findings and treated effectively with conservative measures.

CASE REPORT: The 42-year-old man was brought to the Emergency department by airport police on suspicion of carrying illegal drugs. He was detained in the airport following some relevant piece of information. It was learned that the patient had no active complaints and no additional disease. Vital signs were stable. In the examination of the patient, the bowel sounds were low when listening in the four quadrants of the abdomen, there was no defense and rebound, it was slightly distended.

His abdominal radiograph revealed striking features of multiple well circumscribed similar sized elongated radiopaque shadows with a thin peripheral rim of lucency. The patient was suspected to be carrying drugs at this stage and was given an enema and oral laxative to speed up the passage. The patient was followed up conservatively. He was examined frequently and his general condition was evaluated. As it was learned in the 12-hour follow-up, it was learned that 100 drug (Paste Marijuana) capsules were extracted with defecation. The patient was discharged from the emergency department when no capsule image was found in the control X-ray.

DISCUSSION: Body packaging has for many years been one of the common ways drug traffickers transport illegal drugs from high-security ports in many countries. Body packers are often young men, and there is evidence of their use in pregnant women of all ages and populations. Heroin, cocaine, and cannabis are the most commonly used drugs, and often the material is waterproof multi-layer latex balloons or condoms. Loosely packaged drugs are highly prone to rupture and lead to life-threatening consequences, including death.

CONCLUSİON: It should be kept in mind that patients presenting to the emergency department with suspicious behavior, patient may be illegal package carriers, even if they do not have active complaints.

CASE REPORT: MORTAL ORBITAL MUCORMUCOSIS IN A COVID-19 PATIENT

Gizem Akçın [1], Fatih Selvi [1], Göknur Öztürk [1]

[1] SBU Antalya Training and Research Hospital Emergency Medicine Clinic

Mucormycosis is an invasive fungal disease primarily caused by fungi of the mucorales group. Mucormycosis is a rare, often rapidly progressing, opportunistic fungal infection that can result in death if not diagnosed and treated early. It is usually seen in immunosuppressed patients or patients with uncontrolled diabetes.

Diagnosis is made by the appearance of septum-free hyphae in the tissue and species distinction is made by culture. Correction of the underlying disease forms the basis of aggressive surgical debridement and systemic antifungal therapy.

In this case report, retroorbital abscess and mucormycosis accompanied by osteomyelitis in a patient with known diabetes and receiving pulse steroid therapy in the treatment of COVID-19 will be discussed.

The success of treatment in mucormycosis is closely related to early diagnosis and early initiation of treatment. In this treatment, all necrotic tissues should be debrided and systemic antifungals should be used.

When the cases in the literature are examined, despite the aggressive surgical treatment and systemic antifungal use in the treatment, as seen in our patient, the immunosuppressive picture and comorbid conditions in the patients can lead to mortal results.

KEYWORDS : Mucormycosis , covid , immunosuppression , osteomyelitis , diabetis mellitus

INTRODUCTION

Mucormycosis is an invasive fungal disease primarily caused by fungi of the mucorales group. Mucormycosis is a rare, often rapidly progressing, opportunistic fungal infection that can result in death if not diagnosed and treated early. It is usually seen in immunosuppressed patients or patients with uncontrolled diabetes. [1] .

Mucormycosis occurs clinically as rhinocerebral, pulmonary, central nervous system (CNS), gastrointestinal or subcutaneous, rarely disseminated. The most common form of mucormycosis is rhinocerebral mucormycosis. In rhinocerebral mucormycosis; paranasal sinusitis, headache and facial pain, fever, runny nose, nasal ulceration, vision problems are seen. [2, 3] .

Its spread from the paranasal sinuses to the intracranial region occurs from the skull base region. Fungal elements in the sinus can lead to bone erosion and spread to the orbita, vascular pathways to the cavernous sinus and intracranial region [2, 3].

Diagnosis is made by seeing septum-free hyphae in the tissue and species differentiation is made by culture. Correction of the underlying disease forms the basis of aggressive surgical debridement and systemic antifungal therapy [4] .

In this article, it is aimed to present a case of retroorbital abscess and mucormycosis accompanied by osteomyelitis in a patient with known diabetes and receiving pulse steroid therapy in the treatment of COVID-19.

CASE REPORT

A sixty-one-year-old woman had vision loss in the left eye, intense chemosis, and the eye was protruded for the past twenty days.

On physical examination, there was no light reflex, eye movements were limited in all directions and hyperemia was present.

She had a history of multiple chronic diseases such as diabetes mellitus, hypertension, chronic heart failure, and morbid obesity. There was no history of smoking, alcohol or drug abuse.

In the emergency service examination room; It was determined that there was a 10-day pandemic service hospitalization in an external center due to covid pneumonia about 40 days ago, and that she received pulse steroid therapy during the period of follow-up in the hospital. The patient, who had applied to an external center again with complaints of swelling, cough, and sputum in the left eye 23 days ago, was followed up in isolation at home. In the follow-ups, vision loss developed in the left eye, edema increased and the eye protruded outward, and the patient applied to the emergency service again.

In the physical examination, her general condition was good, the patient was conscious and oriented and cooperative. Outward protrusion was observed in the left orbit. In the first examination, no necrosis or color change was observed in the oropharynx and nasal cavity.

In the orbital tomography of the patient; 20x50 mm abscess formation with air densities in the left orbital protrude, orbital inferior part and the lesion causes pressure on the optic nerve. In the left half of the maxilla, anterior left zygoma, orbital floor, and pteroid processes, there were hairy-fuzzy appearances at the bone borders that could be significant in terms of osteomyelitis (Figures 1 and 2).

While high C-reactive Protein (CRP) (CRP: 48.2 mg/L) was observed in the laboratory tests of the patient, no pathological changes were observed in other laboratory parameters. With the findings, the patient was consulted to the eye clinic and it was decided to be followed up in the hospital.

Clinical Microbiology and Infectious Diseases were consulted to arrange treatment during the follow-up in the service he was hospitalized. Piperacillin tazobactam 3x4.5 gr, vancomycin 2x1 gr, voricanazole 2x400 mg loading followed by 2x200 mg maintenance treatment was recommended for the patient. Due to CRP progression, voriconazole replacement was planned and amphotericin-b 1x5mg/kg was added instead.

During the follow-up, procalcitonin was detected as 0.08 ng/mL (low risk). Abscess drainage was done on the 3rd day. After the abscess drainage, light reflex was obtained in the follow-ups. Eyelid edema regressed. Minimal eye movements came into existence.

There was no microorganism growth in the blood cultures taken. Antibiotherapy and antifungal treatment of the patient whose CRP progression continued and creatinine level increased, was changed to imipenem, linezolid and amphotericin-b. The patient, whose eye movements were improved, was transferred to the Otorhinolaryngology department after mucosal necrosis was observed in the oropharynx.

Left maxilectomy was performed due to necrosis in the eye muscles and bone tissue of the patient. Biopsy was taken from necrotic and degenerated tissues. In the direct examination of the obtained material, it was evaluated as a fungus with thin hyphae.

The patient was transferred to Infectious Diseases for follow-up, whose surgical interventions were performed and fungus was detected in the direct examination.

As a result of the pathology, thick and irregularly shaped fungal hyphae structures with 90 degree branching, no septa were detected, and it was reported as mucormucosis. In the follow-up of the patient whose antibiotic therapy and antifungal treatment continued, there was a progressive worsening in consciousness.

Despite antifungal treatment and surgical intervention, the patient died on the 65th day of his treatment due to the development of cardiopulmonary arrest.

DISCUSSION

Rhinocerebral mucormycosis is a rapidly progressive and fatal infection that is common in diabetic patients, hematological malignancies, and immunosuppression-induced neutropenia.

The most common predisposing factor is DM (60-80%), and other immunosuppressive conditions such as hematological diseases, neoplasia, chronic renal failure, antineoplastic agents, immunosuppressive therapy, corticosteroid use, protein-calorie malnutrition, organ and bone marrow transplantation, AIDS can also be found in the etiology.

Since mucormycosis is an aggressive infection that spreads mostly from the paranasal sinuses to the orbital or cranial area, radiological imaging is very important in the diagnosis. Computed tomography fills the sinuses and creates an appearance that can be observed in different densities.

Various cases are identified in the literature in the form of case reports and case series. In the 7 case presentation published by Gorjon et al., it was stated that aggressive surgical treatments and high-dose Amfortericin-B were used. However, the cases showed a poor prognosis and were mortal. [5] . In the case report by Hilal et al., debridement and combined antifungal treatment were applied. A successful result has been obtained . [6] .

The success of treatment in mucormycosis is closely related to early diagnosis and early initiation of treatment. In its treatment, all necrotic tissues should be debrided and systemic antifungals should be used.

In our case, the patient had known diabetes. Surgical debridement (left maxillectomy, abscess drainage) and systemic antifungal were used as treatment. Since the infection in this group of patients is opportunistic, debridement and antifungal treatments planned to protect the host structure as well as the patient's body integrity may not provide adequate treatment. In the study conducted by Ogawa et al., it was reported that the use of micafungin may be effective in addition to debridement and amphotericin-b application. [7] . As seen in our patient, the immunosuppressive picture and comorbid conditions in patients can lead to mortal consequences. Resection of the tissue with clean borders in the early period can be considered as an alternative treatment.

TABLES AND PHOTOS

Figure 1. Retroorbital abscess formation on the left side in orbital tomography

Figure 2. Osteomyelitis appearance on the left maxillar, orbital floor bone borders on tomography

RESOURCES

1. Takahashi, H., et al., *Clinical features and outcomes of four patients with invasive fungal sinusitis.* Auris Nasus Larynx, 2011. **38** (2): p. 289-94.

2. Saleh, HA and MW Bridger, *Invasive aspergillosis of the paranasal sinuses: a medical emergency.* J Laryngol Otol, 1997. **111** (12): p. 1168-70.

3. Waitzman, AA and BD Birt, *Fungal sinusitis.* J Otolaryngol, 1994. **23** (4): p. 244-9.

4. Parikh, SL, G. Venkatraman, and JM DelGaudio, *Invasive fungal sinusitis: a 15-year review from a single institution.* Am J Rhinol, 2004. **18** (2): p. 75-81.

5. Santos Gorjon, P., et al., *Rhino-orbito-cerebral mucormycosis, a retrospective study of 7 cases.* Acta Otorrinolaringol Esp, 2010. **61** (1): p. 48-53.

6. Hilal, AA, SJ Taj-Aldeen, and AH Mirghani, *Rhinoorbital mucormycosis secondary to Rhizopus oryzae: a case report and literature review.* Ear Nose Throat J, 2004. **83** (8): p. 556, 558-60, 562.

7. Ogawa, T., et al., *Successful treatment of rhino-orbital mucormycosis by a new combination therapy with liposomal amphotericin B and micafungin.* Auris Nasus Larynx, 2012. **39** (2): p. 224-8.

The association between hemoglobin (Hb)-red cell distribution width (RDW) ratio (HRR) in patients who present to the emergency department with severe pneumonia

Birsen Ertekin[1], Tarık Acar[1]

[1]Department of Emergency, University of Health Sciences, Beyhekim Training and Research Hospital, Konya, Turkey

Background and Aim: Community-acquired pneumonia (CAP) is among the leading causes of mortality and severe morbidity, particularly among the elderly. Despite the effectiveness of modern antibiotic therapies, it is still among the most common causes of mortality (1). Anemia is a common finding in hospitalized patients with CAP and it is closely associated with mortality and prognosis (2). In addition, the values of elevated red cell distribution width (RDW) were reported to be able to predict short-term negative outcomes in these patients (3). Hence, our study has investigated the association between hemoglobin (Hb)-red cell distribution width (RDW) ratio (HRR) in patients who present to the emergency department with severe pneumonia.

Methods: A total of 123 patients who had been diagnosed with severe CAP in the emergency department and hospitalized in the intensive care unit were retrospectively analyzed. Males and females above 18 years of age, who had been diagnosed with severe CAP according to current guidelines were included in the study (4). Patients who had nosocomial or aspiration pneumonia, active tuberculosis, cancer, pregnancy, renal failure, heart failure, hematologic, rheumatic, and oncologic disorders, those who were receiving immunosuppressive therapy, and those whose PCR test results were positive were excluded from the study. The HRR levels were estimated using Hb and RDW counts obtained from the routine complete blood count analyses on admission. Hb, RDW and HRR levels were compared among the patients who died or survived, among those who received mechanical ventilation or not, those who were receiving vasopressor support or not, and those whose duration of hospital stay was ≤10 days or > 10 days. Furthermore, ROC analysis was performed for determining the value of these three parameters in predicting mortality, and sensitivity and specificity were estimated. In the whole study, the ratio of Type 1 error was accepted as 5% and a p level of <0.05 was accepted as statistically significant. Statistical analyses were carried out using the SPSS 21.0 (IBM Inc., Chicago, Il, USA) program.

Results: The comparison of the dying and surviving patients with regard to age, gender, Hb, RDW and HRR levels has been presented in Table 1. While age and HRR levels were significantly higher among the dying patients compared to survivors, the Hb and HRR levels were lower (p>0.001 for all). No statistically significant difference was found between the two groups with regard to gender 8p=0.85). While the RDW levels were significantly higher in patients who were receiving MV and vasopressor support compared to those who were not receiving MV and vasopressor support, the Hb and HRR values were found to be low (p<0.05 for all) (Table 2). However, no significant difference could be found with regard to Hb, RDW, HRR, and duration of hospital stay (p=0.35, p=0.45, and p=0.64, respectively). In the prediction of mortality, while the cut-off value of HRR was 0.719, the sensitivity was 84.8% and the specificity was 83.1% (AUC:0.865, p<0.001) (Table 3).

Discussion: Current studies have shown that RDW and Hb values on admission are prognostic markers in patients with CAP (2,3). Chang IF et al. emphasized that anemia was independently associated with admission to the intensive care unit and intubation rates (OR, 3.79 and OR,3.00, respectively) (5). Ren Q et al. have stated that RDW values are significantly higher in the dying patient group, and thereby elevated RDW is associated with negative short-term outcomes in patients with CAP (3). In our study, while the RDW levels were higher in patients who died, and in those who received MV and vasopressor support compared to those who survived and who did not receive support, Hb was found to be lower. Therefore, RDW and Hb values on admission may be used as markers in predicting the disease severity and poor outcomes.

In recent years, studies investigating the relationship between HRR levels and prognosis in patients with coronary artery disease (CAD), ischemic stroke (IS) and cancer were reported (6,7,8). However, there are no studies investigating the relationship between HRR and prognosis in patients with pneumonia. HRR is a novel prognostic marker that includes Hb and RDW, both of which can be obtained from routine blood analysis (9). Qu J et al. stated that Hb and RDW could be affected by many conditions; hence, HRR, which is a novel inflammation marker, could be a safer parameter (6). Qin Z et al. found a negative correlation between all-cause mortality and HRR values in patients with AF and experienced IS when the HRR value is≤9.74 (7). In their study conducted with patients with heart failure, Rahamin E. et al. reported that HRR was an independent predictor of hospitalization or death (9). Our study also found that HRR levels were lower in patients who died, and in those who received MV and vasopressor support, compared to those who survived and did not receive support (p<0.001 for all). In addition, according to the ROC analysis, while the HRR cut-off value was 0.719, the sensitivity was 84.8% and the specificity was 83.1% in the prediction of mortality (AUC:0.865, p<0.001).

Conclusion: HRR levels calculated on admission to the emergency department is a marker associated with prognosis and mortality in patients with severe pneumonia.

Keywords: Hemoglobin, Red cell distribution width, Emergency department, mortality, prognosis

Table1. Comparison of demographic and laboratory findings of survived and died patients

Variables	Survived *(n=75)*	Died *(n=46)*	p-Value
Age ▯ ᵅ, mean ± SD, years	69.88±13.09	78.39±12.72	**0.001**
Gender¥ (M/ F), n (%)	50.6/49.4	47.8/52.2	0.85
Hb▯ ᵅ, (g/dl)	12.41±2.17	10.87±2.16	**<0.001**
RDW▯, (%)	14.2 (11.2-20.3)	17.45 (13.5-27.3)	**<0.001**
HRR▯ ᵅ	0.87±0.17	0.62±0.14	**<0.001**

▯ *It showed a normal distribution pattern and data were expressed as mean±SD.*

▯ *It did not show a normal distribution pattern, and the data were expressed as median (min-max). Mann-Whitney U test.*

¥ Gender percentage (%) distribution (Male/Female), chi-square analysis.

ɑ Independent t-test.

Table 2. Relationship with patient groups of Hb, RDW and HRR parameters

Patient groups	Hb α (g/dl)	p	RDW (%)	p	HRR α	p
Vasopressor support (+)	10.73±2.12	**0.003**	17.80 (13.5-27.3)	**<0.001**	0.61±0.15	**<0.001**
Vasopressor support (-)	12.16±2.23		14.70 (11.2-20.3)		0.83±0.19	
MV support (+)	11.51±2.21	**0.024**	16.40 (11.20-27.30)	**<0.001**	0.73±0.18	**<0.001**
MV support (-)	12.49±2.30		14.60 (11.2-20.3)		0.87±0.20	
Length of stay in hospital > 10 day	12.11±2.22	0.35	15.70 (12.20-20.00)	0.45	0.79±0.22	0.64
Length of stay in hospital ≤ 10 day	11.70±2.31		15.15 (11.20-27.30)		0.77±0.19	

 It showed a normal distribution pattern and data were expressed as mean±SD.

 It did not show a normal distribution pattern, and the data were expressed as median (min-max). Mann-Whitney U test.

¥ Gender percentage (%) distribution (Male/Female), chi-square analysis.

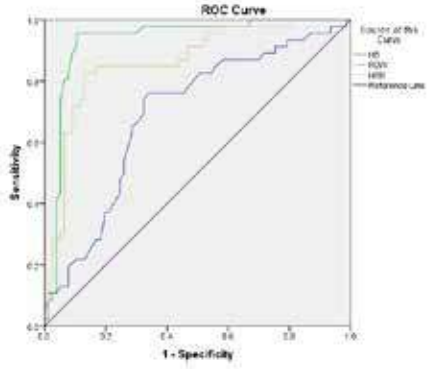
α Independent t-test.

Table 3. The ROC analysis of parameters in the prognostication of mortality.

	AUC (%95 CI)	Cut-off	p	Sensitivite (%)	Spesifite (%)
Hb¥	0.693 (0.596-0.790)	11.95	**<0.001**	76.1	66.2
RDW	0.931 (0.880-0.982)	16.05	**<0.001**	95.7	89.6
HRR¥	0.865 (0.796-0.933)	0.719	**<0.001**	84.8	83.1

AUC: Area under curve, ROC: Receiver operating characteristic, CI: Confidence Interva, Reference Category: Survival group
** Based on Youden J index.* ¥ Smaller values are associated with more positive (in favor of mortality) number of cases.

Figure 1. ROC analysis chart of Hb, RDW and HRR parameters



REFERENCES

1. Braun E, Kheir J, Mashiach T, Naffaa M, Azzam ZS. Is elevated Red cell distribution width a prognostic predictor in adult patients with community acquired Pneumonia. BMC Infect Dis. 2014 Mar 5;14:129.

2. Reade MC, Weissfeld L, Angus DC, Kellum JA, Milbrandt EB. The prevalence of anemia and its associationwith 90-day mortality in hospitalized community-acquired pneumonia. BMC Pulm Med. 2010 Mar 16;10:15.

3. Ren Q, Liu H, Wang Y, Dai D, Tian Z, Jiao G, Liu X. The Role of Red Blood Cell Distribution Width in the Severity and Prognosis of Community-Acquired Pneumonia. Can Respir J. 2021 Sep 11;2021:8024024.

4. Metlay JP, Waterer GW, Long AC, Anzueto A, Brozek J, Crothers K, et al. Diagnosis and Treatment of Adults with Community-acquired Pneumonia. Am J Respir Crit Care Med. 2019 Oct 1;200(7):e45-e67. doi: 10.1164/rccm.201908-1581ST

5. Chang IF, Shih WL, Liu YC, Ho TW, Yen TY, Chang HH, Chang LY, Fang CT, Lai F. The association of anemia with the clinical outcomes of community-acquired pneumonia in children. Pediatr Pulmonol. 2022 Jun;57(6):1416-1424.

6. Qu J, Zhou T, Xue M, et al. Correlation analysis of hemoglobin-to-red blood cell distribution width ratio and frailty in elderly patients with coronary heart disease. Front Cardiovasc Med. 2021;8:728800

7. Qin Z, Liao N, Lu X, Duan X, Zhou Q, Ge L. Relationship Between the Hemoglobin-to-Red Cell Distribution Width Ratio and All-Cause Mortality in Ischemic Stroke Patients with Atrial Fibrillation: An Analysis from the MIMIC-IV Database Neuropsychiatr Dis Treat. 2022 Feb 18;18:341-354.

8. Lin Z, Zhang X, Luo Y, Chen Y, Yuan Y. The value of hemoglobin-to-red blood cell distribution width ratio (Hb/RDW), neutrophil-tolymphocyte ratio (NLR), and platelet-tolymphocyteratio (PLR) for the diagnosis of nasopharyngeal cancer. Medicine (Baltimore). 2021 Jul 16;100(28):e26537

9. Rahamim E, Zwas DR, Keren A, Elbaz-Greener G, Ibrahimli M, Amir O, Gotsman I The Ratio of Hemoglobin to Red Cell Distribution Width: A Strong Predictor of Clinical Outcome in Patients with Heart FailureJ Clin Med. 2022 Feb 8;11(3):886

A Rare Complication After Anterior Lumbar Interbody Fusion; Giant Rectus Sheath Hematoma

Cüneyt ARIKAN[1], Güner Yurtsever[1]

[1]İzmir Atatürk Training and Research Hospital, Department of Emergency Medicine, İzmir, Turkey

Introduction: Rectus sheath hematoma is a rare and often misdiagnosed diagnosis (1). RCH can create diagnostic dilemmas as it manifests as an acute abdomen or a space-occupying lesion. (2) Most of the reported cases were found to occur spontaneously. (3) A wide variety of predisposing factors have been identified: cough, trauma, physical exertion, pregnancy, bleeding disorders, use of anticoagulants, previous various surgical operations, age, inflammatory and degenerative muscle diseases, vascular injury during surgery, parasentensis, laparoscopic interventions (4). Anterior lumbar interbody fusion (ALIF) is a commonly performed procedure in lumbar spine surgery. The incidence of vascular complications after the procedure ranges from 0% to 15.6%. Rarely, abdominal wall hematoma may occur as a result of rupture of the abdominal epigastric arteries. In this report, a case of giant rectus sheath hematoma, which is a rare complication after ALIF, is presented.(5,6)

Case: A 27-year-old female patient presented to the emergency department with complaints of high fever and abdominal pain. His general condition was good, he was conscious, his vital signs were stable. TA: 115/85, heart rate: 92/min, oxygen saturation: 98. It was learned that he had been operated at an other center with an ALIF method 3 days ago for L5/S1 hernia. There was tenderness and swelling on the left anterior side of the anterior abdominal wall. In his examinations, hemoglobin: 9 g/dl, thrombocyte: 203,000 cells/ml, INR: 1,11. After the last hemoglobin value, which was checked in an external center, was 11,4 g/dl in the postoperative examination. The patient was taken with contrast-enhanced abdominal computer tomography (CT) with the suspicion of bleeding. A giant rectus hematoma was seen on CT. The patient was consulted to general surgery and interventional radiology. He was discharged after supportive treatment in the service.

Discussion: Rectus sheath hematoma is a rare condition and is often misdiagnosed,leading to unnecessary surgical exploration. The patient is usually a woman who presents with acute abdominal pain and tender swelling of the abdominal wall on one side. It can be potentially fatal in elderly patients and a prompt diagnosis is essential. Abdominal CT is recommended for diagnosis. If the patient is stable,supportive treatment and follow-up are recommended.Our patient was discharged because there was no active bleeding and his complaints regressed.

Conclusion: Rectus hematoma may accompany acute appendicitis, perforated ulcer, ovarian cyst torsion, intestinal obstruction, tumor and pregnancy-related conditions (degenerate leiomyoma, ablas placenta, uterine rupture). It may occur after a surgical procedure, as in our patient. In this case report, we wanted to draw attention to the consideration of rectus hematoma in cases of low hemoglobin and abdominal swelling or ecchymosis in a patient who had an anterior abdominal wall approach. Conservative management of these patients is possible with the exclusion of other conditions that require surgery, rapid diagnosis and treatment in the emergency department.

References

1.Berna JD, Garcia-Medina V, Guirao J, et al. Rectus sheath haematoma: Diagnostic classification by CT. Abdom Imaging 1996;21:62–4.

2. Blum A, Bui P, Boccaccini H *et al*. Imaging of severe forms of haematoma in the rectus abdominis under anticoagulants. *J Radiol* 1995 ; 76 : 267-75.

3.Linhares MM, Lopes Filho GJ, Bruna PC, et al. Spontaneous haema- toma of the rectus abdominis sheath: a

review of 177 cases with report of 7 personal cases. Int Surg 1999;84:251–7.

4. Berna JD, Zuazu I, Madrigal M *et al*. Conservative treatment of large rectus sheath haematoma in patients undergoing anticoagulant therapy. *Abdom Imaging* 2000 ; 25 : 230-34.

5. BrauSA,DelamarterRB,SchiVmannML,WilliamsLAetal(2004) Vascular injury during anterior lumbar surgery. Spine J 4:409– 412. doi:10.1016/j.spinee.2003.12.003

6. Watkins R (1992) Anterior lumbar interbody fusion surgical complications. Clin Orthop Relat Res 284:47–53

Retrospective Comparison Of The Lp Results Of Patients Who Was Done Wıth Prediagnose Of Meningitis

Kemal Şener[1], Ertuğrul Altuğ[1], Hafsa Aslan[1], Mustafa Aral[1], Semih Savaşcı[1], Ramazan Güven[1]

[1]Başakşehir Çam and Sakura City Hospital, Emergency Department

Introducti□on: Meningitis, defined as the inflammation of the cerebrospinal fluid, causes serious mortality and morbidity. It is important to suspect meningitis, to make an early diagnosis and to initiate prophylaxis in the emergency department, especially in patients with fever, neck stiffness, headache and confusion. Acute meningitis is clinically characterized by meningeal symptoms that develop within a few days or hours. Although complaints of fever, headache, meningismus and altered consciousness can be seen in chronic meningitis, the onset is often more insidious. It may take weeks or months for symptoms to appear.

Method: Our study was carried out retrospectively between October 1, 2021 and October 1, 2022. In our study, 45 patients who applied to Başakşehir Çam and Sakura City Hospital Emergency Department with the suspicion of meningitis were included in our study. Of these patients, 25 patients underwent lumbar puncture. 7 patients were excluded from the study because their information could not be accessed in the hospital information management system.

Results: A total of 18 patients were included in our study. 72.8% of the cases were male. The median age was 56 (min-max: 27-74) in the untreated group and 42 (min-max: 29-80) in the treatment-initiated group. There was no significant difference between the two groups in terms of vital parameters between the treatment-initiated and treatment-initiated groups.

As a result of the comparison between the laboratory tests between the untreated group and the treated group, there was no significant difference between blood white blood cell and c-reactive protein tests. But Bos WBC was found to be significantly higher in the treatment-initiated group between the two groups.

Conclusi□on: Treatment should be started without waiting for the results of blood and lumbar puncture in patients who present to the emergency department with findings that may cause suspicion of meningitis, such as neurological deficits. Our study shows that in case of clinical suspicion, blood white blood cell and c-reactive protein results are not sufficient to make the differential diagnosis of meningitis. We have seen in our study that the number of empty white blood cells gives more accurate results in diagnosing meningitis.

Statistical Analysis: Data were analyzed with SPSS package program version 24.0. Number, percentage, mean, standard deviation, median, minimum and maximum were used in the presentation of descriptive data. The conformity of the data to the normal distribution was evaluated with the Shapiro-Wilk Test. Continuous variables that did not show normal distribution in univariate analysis were expressed as median (min-max) and compared using the Mann Whitney U Test.

P <0.05 was accepted as statistical significance level.

Results: A total of 18 patients were included in our study. 72.8% of the cases were male. The median age was 56 (min-max: 27-74) in the untreated group and 42 (min-max: 29-80) in the treatment-initiated group. There was no significant difference between the two groups in terms of vital parameters between the treatment-initiated and treatment-initiated groups (Table 1).

Table 1. Vital Parameters of Patients

	Without Treatment	With Treatment	p Value
Age (/year)*	56 (27-74)	42 (29-80)	0,563**
Body Temp (C)*	36 (36-36)	36 (36-36)	0,371**
Pulse (/min)*	97 (54-120)	90,5 (63-120)	0,928**
Respiration Rate (/min)*	20 (20-23)	20 (19-22)	0,839**
Systolic Blood Pressure (mmHg)*	131,5 (95-154)	118 (109-157)	0,45**
Diastolic Blood Pressure (mmHg)*	72,5 (54-110)	71,5 (60-84)	0,859**
* median (min-max) **Mann-Whitney U testi			

As a result of the comparison between the laboratory tests between the untreated group and the treated group, no significant difference was observed between blood WBC and CRP tests. However, Bos WBC was found to be significantly higher in the treatment-initiated group between the two groups (Table 2).

Table 2. Laboratory tests between treatment uninitiated and initiated groups

	Without Treatment	With Treatment	p Value
Blood WBC*	10,5 (2-17)	12,5 (7-33)	0,448**
CSF WBC*	1,5 (0-635)	25,5 (1-135)	0,029**
CRP	8,5 (0-218)	12 (0-336)	0,929**
*median (min-max) **Mann-Whitney U test			

References

1.Gültepe, B. , Bayram, Y. , Güdücüoğlu, H. , Çıkman, A. , Berktaş, M. "Bir Üniversite Hastanesinde Bakteriyel ve Viral Menenjit Etkenlerinin Farklı PCR Yöntemleri ile Araştırılması". Abant Tıp Dergisi 4 (2015): 125-129

2. UYAN, Ayşe & Eraslan, Cenk & Erdem, Hüseyin & SİPAHİ, Oğuz & TAŞBAKAN, Meltem & PULLUKÇU, Hüsnü. (2015). Why Did the Patient Not Heal? A Case of Chronic Meningitis Who Was Hospitalized Due to Acute Purulent Meningitis. ANKEM Dergisi. 10.5222/ankem.2015.079.

3. Leblebicioğlu, H. "Bakteriyel Merkezi Sinir Sistemi Enfeksiyonlarında Tanı" Ankem Dergisi 2005;19(Ek 2):137-141

4.Leib SL, BoscacciR, Gratzl O,ZimmerliW: Predictive value of cerebrospinal fluid (CSF) lactate level versus CSF/blood glucose ratio for the diagnosis of bacterial meningitis following neurosurgery, Clin Infect Dis 1999; 29(1):69-74.

5.Tunkel AR, Hartman BJ, Kaplan SL et al: Practice guidelines for the management of bacterial meningitis, Clin Infect Dis 2004;39(9):1267- 84

6.Tunkel AR, Scheld WM: Acute meningitis, "Mandell GL, Bennett JE, Dolin R (eds): Principles and Practice of Infectious Diseases, 5 ed." book page.959-97, Churchill Livingstone, Philadelphia (2000)

7.Roos KL: What I have learned about infectious diseases with my sleeves rolled up, Semin Neurol 2002;22(1):9-15

8.Tunkel AR, Hartman BJ, Kaplan SL et al: Practice guidelines for the management of bacterial meningitis, Clin Infect Dis 2004;39(9):1267- 84

A CAUSE OF SERIOUS HEADACHE İN THE EMERGENCY DEPARTMENT; SUBDURAL HEMATOMA AFTER EPIDURAL ANESTHESIA

Latif DURAN, Seniha KELKİTLİ, Aleyna ÖZDENİZCİ, Burak KÜÇÜKKARA

Ondokuz Mayıs University, Faculty of Medicine, Department of Emergency Medicine. SAMSUN

Epidural anesthesia, a spinal anesthesia technique, was first applied in 1895. In time, the information about this application has increased, its indications have expanded, and its use has become widespread. it has become one of the basic regional anesthesia methods today (1,2). The increase in the application of spinal anesthesia has brought about an increase in the incidence of complications. Complications of spinal anesthesia are documented. That is back pain, headache, urinary retention, cauda equina syndrome, neurological deficits, meningitis, epidural abscess, spinal or epidural hematoma, hearing loss, bradycardia, hypotension, cardiac arrest (3,4). Intracranial subdural haematoma formation is a rare, unusual complication of spinal or epidural anesthesia. The diagnosis is usually difficult because initial symptoms are the same of postdural puncture headache(PDH) or post spinal headache (PSBA) (4,5). We aimed to present a case of subdural hematoma, a very serious complication that developed after epidural anesthesia, who applied to the emergency department.

Case report

A 33-year-old female patient presented to the emergency department with the complaint of headache that started 2 days ago and gradually increased. Headache is diffuse, resistant to analgesics, and it has become increasingly unbearable. Pain was relieving in supine position. She has mild nausea, but she did not complain of vomiting, loss of consciousness, or seizures. The patient stated that she had rheumatoid arthritis and had a cesarean section with epidural anesthesia 20 days ago.

The patient's blood pressure was 120/80 mmHg, heart rate was 62 bpm(beats per minute), respiratory rate was 18/min and her body temperature was 36 °C. Sinus rhythm was observed on electrocardiography. All system examinations were normal. In the neurological examination, Glasgow Coma Scale (GCS) was 15, Pupillary isochoric, direct and indirect light reflex was obtained. There was no neck stiffness. There was no motor or sensory deficit. No pathological reflex was obtained. Deep tendon reflexes were normal. The patient's laboratory, complete blood count, blood glucose, liver and kidney function values, blood gas, coagulation parameters were normal. The patient was taken for a computed tomography (CT) scan of the brain; an appearance compatible with an **acute/ subacute subdural hematoma** reaching a thickness of 16 mm at its widest part, which extends to the vertex at the level of the frontal lobe on the right, signs of **compression to the lateral ventricle** on the right, and minimal shift to the left in the midline were observed. There was an appearance compatible with edema in both cerebral hemispheres, more prominent on the right (Fig.1).

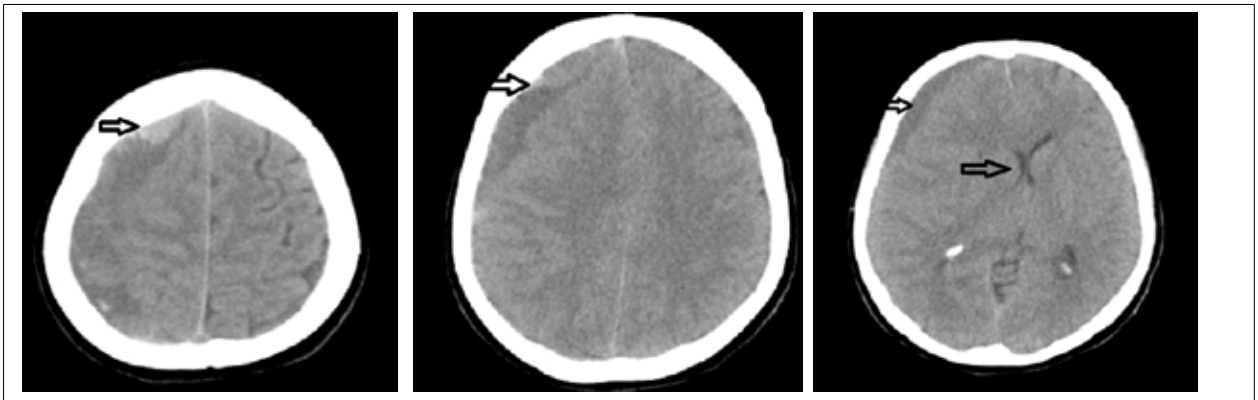


Fig. 1.Acute/subacute subdural hematoma, compression to the lateral ventricle on the right

The patient was operated urgently by the neurosurgery department. The patient, who did not have any problems in the followups after the surgery, was discharged with full well-being.

Discussion

Complications of epidural anesthesia include back pain, headache, urinary retention, cauda equina syndrome, neurological deficits, meningitis, epidural abscess, spinal or epidural hematoma, hearing loss, bradycardia, hypotension, cardiac arrest (4,6). The most common complication is post spinal headache (PSBA). Young age, female gender, low body mass index, history of PSBA, history of chronic headache can be listed as risk factors for the development of headache after epidural anesthesia. Age is an important factor among the risk factors for the development of PSBA. While PSBA is extremely rare over the age of 60, the risk of its occurrence in the 20-30s is quite high (7). The decrease in PSBA with age is associated with lower cerebrospinal fluid (CSF) pressure in older people. The fact that the patient in our case was 33 years old and had recently undergone spinal anesthesia brings to mind PSBA.

The form and severity of headache after epidural anesthesia is variable. Headache can be moderate or mild, but it is often severe. The pain may be blunt, burning, or throbbing. Although the localization of the headache is not diagnostic, there is usually a frontal or occipital localized pain and may radiate to the neck and shoulder(8). Pain involving the neck may also occur. Pain increases with physical activity and head movements increase the severity of pain. The Valsalva maneuver, coughing, sneezing, high blood pressure, and ocular compression may increase the severity of headache. PSBA may be associated with back pain, dizziness, tinnitus, hearing disorders, cranial nerve palsies, diplopia, and cortical blindness. Nausea, photophobia, phonophobia may also be seen. Patient's headache that relieves in supine position and increases in standing position was strengthten the diagnosis of PSBA(9).

Subdural hematoma is usually associated with headache and often neurological deficit. In our case, PSBA was considered in the early period because there was no neurological deficit. Since our patient's headache did not respond to conservative treatments and was severe, serious life-threatening headache causes were investigated. In this way, the case could be diagnosed early in the acute phase.

Conclusion, Although headache developing after epidural interventions is often thought of as postdural puncture headache(PDH), it can also develop due to life-threatening bleeding such as subdural hematoma**.** In Emergency departmen, Therefore, a detailed systemic, neurological and radiological evaluation should be performed.

REFERENCES

1. Fisher B. Techniques of epidural block. Anaesth Intensive Care 2009;10(11):552-6.

2. Morgan P. The role of vasopressors in the management of hypotension induced by spinal and epidural anaest-

hesia. Can J Anaesth 1994;41(5):404-13.

3. Dale MC, Checketts MR. Complications of regional anaesthesia. Anaesth Intensive Care 2010;11(3):85-8.

4. Park IB, Moon SY, Kim YY. Acute-on-chronic subdural hematoma by spinal anesthesia in a patient with undiagnosed chronic subdural hematoma -A case report. Korean J Anesthesiol 2011;61:75-8.

5.Kloss BT, Lagace RE. Acute-on-chronic subdural hematoma. Int J Emerg Med. 2010;3:511-2.

6.Oğuzalp H., Ömür D.,Oğuzalp Ş.Türk Anest Rean Der Dergisi 2011; 39(5):271-275.

7.Pjević M, Gvozdenović L. Postspinal headache--incidence and prognosis. Med Pregl. 1993;46(5-6):201-4.

8.Chan L, Delilkan AE. Incidence of postdural puncture headache. A prospective study of 101 spinal anaesthetics in orthopaedic patients. Med J Malaysia. 1992;47(1):20-6.

9.Ahmed S V ,Jayawarna C,Jude E.Post lumbar puncture headache: diagnosis and management .Postgrad Med J 2006;82:713–716.

EFFICIENCY OF TROPONINE IN THE DIAGNOSIS OF ACUTE CORONARY SYNDROME IN CHRONIC RENAL FAILURE PATIENTS

Ahmet Kayalı

Introduction: Chronic renal failure (CRF) is a pathophysiological condition that can develop due to different underlying diseases and progresses with progressive and irreversible loss of nephrons. Regardless of the decrease in the glomerular filtration rate (GFR) level, there is a damage in the kidney with structural or functional disorders lasting more than 3 months, or the GFR is more than 60 mL/min/1.73m2 for more than 3 months. low is diagnostic for chronic renal failure (1).

Approximately 40% of patients with CRF have coronary artery disease (CAD) (2). In a study, it was determined that the risk of acute myocardial infarction (AMI) in end-stage CRF patients is 10% and the rate of sudden death is 9% per year (3).

Cardiac markers are laboratory tests that are useful in detecting acute myocardial infarction (AMI) or minor myocardial damage (4). There are many markers for assessing cardiac damage. However, the two best known and most used biomarkers today are CK-MB and troponins (5). Troponins, together with tropomyosin, are structural proteins involved in the regulation of skeletal and cardiac muscle contraction. The troponin complex consisting of troponin T, I and C is located in the filaments (6)

The importance of high troponin levels in chronic renal failure is still a controversial issue. It is thought that increased troponin levels may be secondary to uremic cardiomyositis (6). Uremic cardiomyositis and the observed deterioration in renal clearance may lead to accumulation of cTnT but not the smaller molecule cTnI. Since patients with chronic renal failure also have ischemic heart disease, this increase may also be caused by minimal myocardial damage (7). In case of high troponin in CRF patients, conditions that cause high troponin levels other than Acute Coronary Syndrome(ACS) should be considered before making an invasive coronary angiography (CAG) decision, which may adversely affect disease progression and prognosis.

In our study, we aimed to evaluate the effectiveness of troponin I (cTnI) level in diagnosing ACS in patients with CRF.

Material and Method:

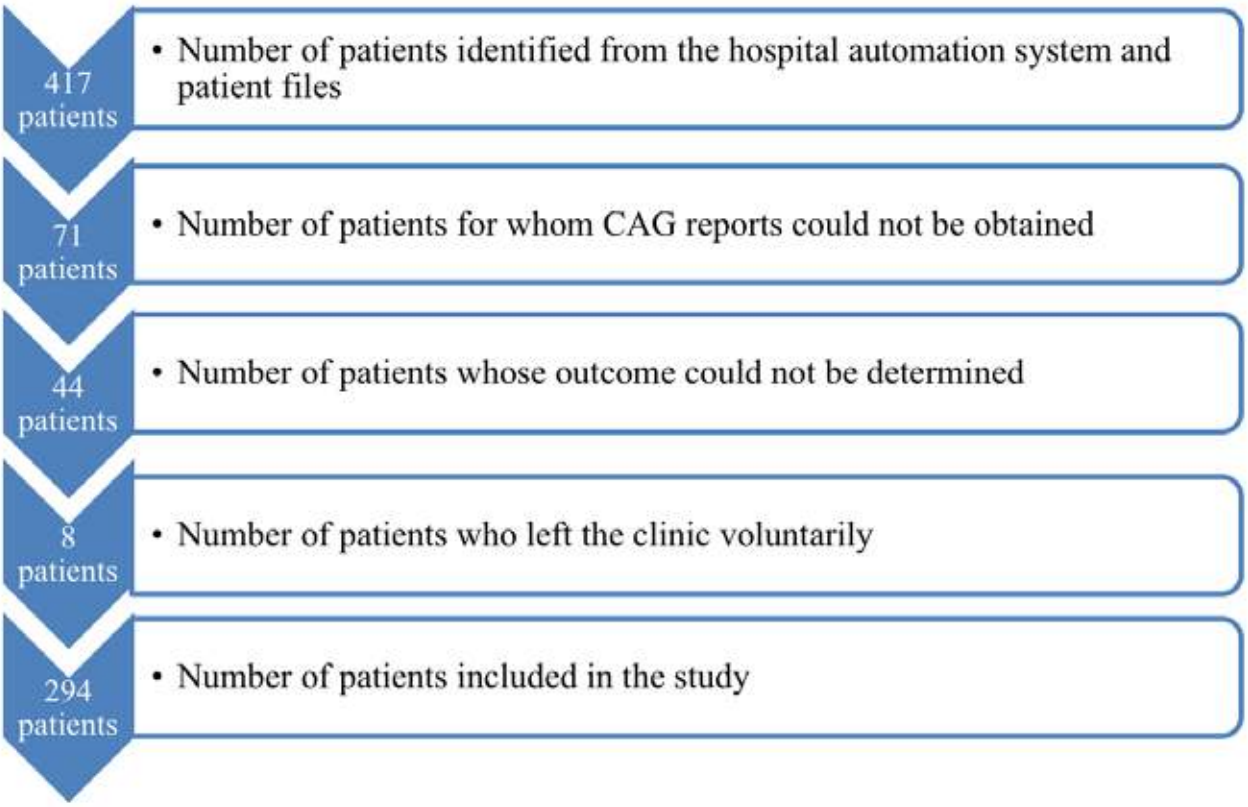
Our study was planned retrospectively, observationally and was performed in a tertiary university emergency department. The study was started after local ethics committee approval was obtained.

All patients over the age of 18 who had CRF and underwent coronary angiography were included in the study. Patients who underwent elective CAG and whose data could not be reached were excluded from the study. Of the 417 patients obtained, 294 patients were included in the study.

Application complaints, demographic data, creatinine, BUN, troponin values and angiography results from the files of the patients included in the study and the hospital automation system were scanned and recorded in the previously created study form. The forms were archived by giving sequence numbers.

Patients who were accepted as CRF patients were selected according to the criteria in the 2004 Kidney Disease Improving Global Outcome (KDIGO) Guidelines and classified according to the same guideline, and stage 3, stage 4 and stage 5 CRF patients were included in the study (1). The presence of more than 50% stenosis in the vascular structures in the CAG results examined was accepted as coronary occlusion (8). CAG results; classified as normal, single-vessel, two-vessel and three-vessel lesions. Obtained data were used in statistical analysis.

Table 1 Consult Diagram



Statistical analysis:

Statistical analysis was performed using SPSS 20.0 for Windows® statistical program (IBM Inc. Chicago, IL, USA) license number 10240642. Minimum-maximum (min-max) values and arithmetic mean±standard deviation (SD) and numbers (n) and percentages (%) of qualitative data were calculated as descriptive statistics. Frequency tests were used for all parameters. Pearson Chi-Square and Fisher's Exact Test were used for pairwise comparisons between categorical variables in patients' data. Independent T-test was used to compare binary data, and Kruskal Wallis Test was used to compare multiple quantitative data. ROC analysis was used to determine cutoff values, sensitivity and specificity for troponin and CK-MB. Cases where the type 1 error level was below 5% were considered statistically significant.

Results:

A total of 294 patients were included in our study. Of these patients, 36.2% were female and 63.8% were male. The mean age was calculated as 65.82±11.7 years. The mean age was 69.52±10.74 years in women and 63.7±11.72 years in men. 38.8% of the patients were stage 3, 26.9% stage 4 and 34.4% stage 5, that is, end-stage CRF. 41.5% of the cases were undergoing routine hemodialysis. 46.9% of the cases were USAP, 37.4% were Non-STEMI and 15.6% were STEMI.

In the coronary angioplasty performed after diagnosis, vascular occlusion was found in 75.9% of the cases, while 24.1% were found to be normal; In the cases with occlusion, 29.9% had a single vessel, 26.5% had two vessels, and 19.4% had three vessels occlusions. It was decided to perform interventional procedure (balloon angioplasty, stent application, etc.) in 45.2% of the cases and surgical treatment in 26.9%. In the examination of the laboratory values of the cases according to the type of ACS; troponin, CK-MB and lactate levels were statistically significantly higher in STEMI cases than in USAP and non-STEMI cases; It was observed that creatinine and GFR levels did not differ according to the type of ACS (Table 2).

Table 2 Analysis of the cases by ACS type

Parameter		ACS			p*
		USAP n (%) Average ±Ss	Non-STEMI n (%) Average ±Ss	STEMI n (%) Average ±Ss	
Age (Year)		64,48±11,72	65,55±10,76	70,48±12,80	**0.029****
Troponine (mg/dL)		0,013±0,027	3,97±2,88	7,02±5,54	**<0.001****
CK-MB (mg/dL)		0,94±0,93	14,79±6,31	22,05±13,41	**<0.001****
Creatinine (mg/dL)		4,20±2,95	3,87±2,50	3,20±2,25	0.171**
GFR		25,36±17,82	25,85±16,96	29,91±16,82	0.271**
Lactate (mg/dL)		1,52±1,19	1,61±0,99	3,84±3,23	**<0.001****
CFR	Grade 3	51 (37,0)	44 (40,0)	19 (41,3)	0.141
	Grade 4	34 (24,6)	27 (24,5)	18 (39,1)	
	Grade 5	53 (38,4)	39 (35,5)	9 (19,69	
Routine HD	No	69 (50,0)	69 (62,7)	34 (73,9)	**0.009**
	Yes	69 (50,0)	41 (37,3)	12 (26,1)	
CAG Results	Single Vessel	37 (26,8)	38 (34,5)	13 (28,3)	**<0.001**
	Two Vessels	30 (21,7)	30 (27,3)	18 (39,1)	
	Three Vessels	20 (14,5)	22 (20,0)	15 (32,6)	
Treatment	No treatment	3 (2,2)	2 (1,8)	0 (0,0)	**<0.001**
	Medical treatment	55 (39,9)	22 (20,0)	0 (0,0)	
	Interventional treatment	42 (30,4)	52 (47,3)	39 (84,8)	
	Surgical treatment	38 (27,5)	34 (30,9)	7 (15,2)	
Outcome	Discharge	133 (96,4)	102 (92,7)	27 (58,7)	**<0.001**
	Exitus	5 (3,6)	8 (7,3)	19 (41,3)	

When the cases were analyzed according to the stages of CRF; It was seen that troponin values increased as CRF stages increased and this situation was statistically significant. It was observed that CK-MB values decreased as the CRF stage increased. Creatinine values increased as the CRF stage increased; It was observed that GFR values decreased as the stage increased. It was observed that 92.1% of the end-stage cases were HD patients. The relationship between troponin positivity and CRF stage was not found statistically significant. It was observed that as the CRF stage increased, the rate of vessel occlusion was higher and this situation was statistically significant. There was no significant relationship between the treatment and outcomes and the stages of CRF (Table 3).

Table 3 Analysis results of the cases according to the stage of CRF

Parameter		CRF Stages Grade 3 n (%) Average ±Ss	Grade 4 n (%) Average ±Ss	Grade 5 n (%) Average ±Ss	p*
Age (Year)		67,77±1,10	68,01±1,34	61,89±1,04	<0.001**
Troponine (mg/dL)		1,72±0,27	2,06±0,67	3,97±0,80	0.032**
CK-MB (mg/dL)		12,40±2,37	8,19±2,33	7,03±1,96	<0.001**
Creatinine (mg/dL)		1,80±0,56	2,88±0,82	7,11±0,20	<0.001**
GFR		45,19±0,88	22,54±0,42	7,78±0,23	<0.001**
Lactate (mg/dL)		1,99±0,16	2,30±0,28	1,52±0,9	0.481**
ACS	USAP	51 (44,7)	34 (43,0)	53 (52,5)	
	Non-STEMI	44 (38,6)	27 (34,2)	39 (38,6)	0.141
	STEMI	19 (16,7)	18 (22,8)	9 (8,9)	
Troponine Positivity	No	54 (47,4)	35 (44,3)	55 (54,5)	0.364
	Yes	60 (52,6)	44 (55,7)	46 (45,5)	
Routine HD	No	108 (94,7)	56 (70,9)	8 (7,9)	<0.001
	Yes	6 (5,3)	23 (29,1)	93 (92,1)	
Occlusion in CAG	No	27 (23,7)	16 (20,2)	18 (17,8)	0.034
	Yes	87 (76,3)	63 (79,8)	83 (82,3)	
CAG Results	Normal	27 (23,7)	19 (24,1)	25 (24,8)	
	Single Vessel	39 (34,2)	22 (27,8)	27 (26,7)	0.683
	Two Vessels	24 (21,1)	25 (31,6)	29 (28,7)	
	Three Vessels	24 (21,1)	13 (16,5)	20 (19,8)	
Treatment	Medical treatment	2 (1,8)	0 (0,0)	3 (3,0)	0.373
	Interventional treatment	28 (24,6)	22 (27,8)	27 (26,7)	
	Surgical treatment	56 (49,1)	39 (49,4)	38 (37,6)	
	Medical treatment	28 (24,6)	18 (22,8)	33 (32,7)	
Outcome	Discharge	100 (87,7)	68 (86,1)	94 (93,1)	0.271
	Exitus	14 (12,3)	11 (13,9)	7 (6,9)	

*: Pearson X^2 Test Used. **: Kruskall Wallis Test Used.

The relationship between the outcomes of the cases and other parameters was examined. Troponin, CK-MB and lactate levels were found to be statistically significantly higher in exitus cases, and there was no significant correlation between creatinine and GFR levels and outcome. Troponin positivity was high in exitus cases; mortality rates of patients with routine HD were found to be statistically significantly lower than those who did not (Table 4).

Table 4 Analysis of the parameters according to the outcomes of the cases

Parameter		Outcome: Discharge n (%) Average±Ss	Outcome: Exitus n (%) Average±Ss	p*
Laboratory Values				
Troponine (mg/dL)		2,24±0,33	5,44±1,67	**0.004**
CK-MB (mg/dL)		7,77±1,18	22,96±6,64	**<0.001**
GFR		25,74±1,06	30,44±3,13	0.149
Creatinine (mg/dL)		3,99±0,16	3,31±0,45	0.183
Lactate (mg/dL)		1,57±0,06	4,71±0,63	**<0.001**
ACS Type				
USAP		133 (50,8)	5 (15,6)	**<0,001**
Non-STEMI		102 (38,9)	8 (25,0)	
STEMI		27 (10,3)	19 (59,4)	
CAG Results				
Occlusion in CAG	No	70 (26,7)	1 (3,1)	**0.003**
	Yes	192 (73,3)	31 (96,9)	
CAG results	Normal	70 (26,7)	1 (3,1)	**<0.001**
	Single Vessel	82 (31,3)	6 (18,8)	
	Two Vessels	67 (25,6)	11 (34,4)	
	Three Vessels	43 (16,4)	14 (43,8)	
Treatment	No Treatment	5 (1,9)	0 (0,0)	**0.012**
	Medical Treatment	76 (29,0)	1 (3,1)	
	Interventional Treatment	113 (43,1)	20 (62,5)	
	Surgical Treatment	68 (26,0)	11 (26,9)	

*: Pearson X^2 Test Used. **: Independent T-Test Used.

The ROC analysis performed to determine the cutoff value, sensitivity and specificity of the troponin and CK-MB test in determining coronary occlusion according to CRF stages are shown in Table 5 and Chart 1. As a result of the analysis; In CFR grade 3 patients, troponin detects coronary occlusion at a cutoff value of 0.097 mg/dL with 54% sensitivity and 71% specificity ; Troponin detects coronary occlusion at 0.066 mg/dL cutoff in CRF grade 4 patients with 63% sensitivity and 79% specificity ; Troponin detects coronary occlusion at 0.049 mg/dL cutoff in CRF stage 5 patients with 57% sensitivity and 84% specificity. While the CK-MB test was not found to be significant in stages 3 and 4, it was found to detect coronary occlusion in CRF stage 5 with 38% sensitivity and 88% specificity at CK-MB cutoff value of 2.41 (Table 5 and Chart 1).

Table 5 ROC analysis values of the power of troponin and CK-MB to detect coronary occlusion according to CRF stages

Parameter	CutOff	Sensitivity	Specificity	Area	%95 CI		p
					LowerBound	UpperBound	
CRF Grade 3 Troponine	0,097	54	71	0,637	0,523	0,751	**0.032**
CRF Grade 4 Troponine	0,066	63	79	0,705	0,589	0,822	**0.007**
CRF Grade 5 Troponine	0,049	57	84	0,711	0,607	0,815	**0.002**
CRF Grade 3 CK-MB	4,91	36	82	0,589	0,474	0,703	0.166
CRF Grade 4 CK-MB	5,99	36	85	0,632	0,499	0,764	0.085
CRF Grade 5 CK-MB	2,41	38	88	0,684	0,576	0,793	**0.006**

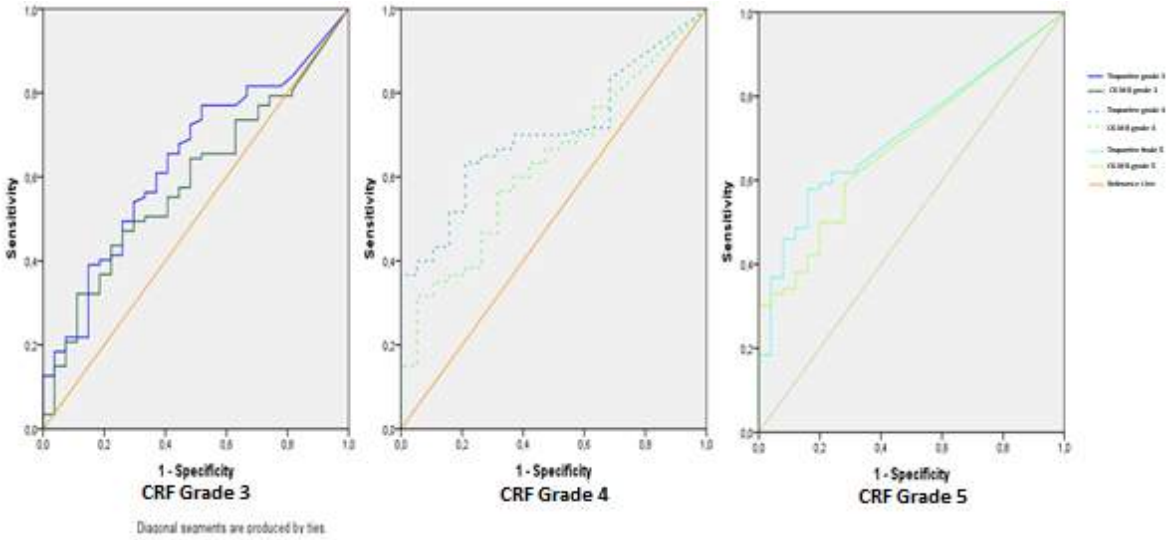


Chart 1 CRF Grade 1, Grade 2 and Grade 3 troponin and CK-MB's power to detect coronary occlusion ROC analysis

In our study, when the analysis was repeated according to the troponin cutoff values obtained according to the CRF stages in the ROC analysis, it was found that the occlusion was significantly detected higher than the troponin cutoff value of 0.097 in stage 3 CRF cases; While it was seen that the predictor of mortality was good, it was found that it was insufficient to determine the number of coronary branches with lesions. Again, in stage 4 CRF patients, it was found that the occlusion was significantly detected above the troponin cutoff value of 0.066; While it was found to be good in determining the number of coronary branches with lesion, it was found to be insufficient in determining the outcome. Finally, troponin over 0.049 mg/dLcutoff value in stage 5 CRF patients was found to be statistically significant both in determining the occlusion and in estimating the number of vessels with lesions and in determining the risk of demortality (Table 6).

Table 6 Re-analysis of troponin cutoff values determined according to CRF stages and occlusion status, CAG result and outcome in ROC analysis

	Grade 3 CRF			Grade 4 CRF			Grade 5 CRF		
Parameter	**Troponine <0,097 n (%)**	**Troponine ≥0,097 n (%)**	**p**	**Troponine <0,066 n (%)**	**Troponine ≥0,066 n (%)**	**p**	**Troponine <0,049 n (%)**	**Troponine ≥0,049 n (%)**	**p**
Occlusion in CAG									
No	19 (32,2)	8 (14,5)	**0.027**	14 (38,9)	5 (11,6)	**0.005**	20 (38,5)	5 (10,2)	**0.001**
Yes	40 (67,8)	47 (85,5)		22 (61,1)	38 (88,4)		32 (61,5)	44 (89,8)	
CAG results									
Normal	19 (32,2)	8 (14,5)	0.178	14 (38,9)	5 (11,6)	**0.040**	20 (38,5)	5 (10,2)	**0.006**
Single Vessel	18 (30,5)	21 (38,2)		9 (25,0)	13 (30,2)		12 (23,1)	15 (30,6)	
Two Vessels	11 (18,6)	12 (23,6)		9 (25,0)	16 (37,2)		14 (26,9)	15 (30,6)	
Three Vessels	11 (18,6)	13 (23,6)		4 (11,1)	9 (20,9)		6 (11,5)	14 (28,6)	
Outcome									
Discharge	57 (96,6)	43 (78,2)	**0.003**	32 (88,9)	36 (83,7)	0.509	51 (98,1)	43 (87,8)	**0.041**
Exitus	2 (3,4)	12 (21,8)		4 (11,1)	11 (13,9)		1 (1,9)	6 (12,2)	

Pearson X^2 test and Fisher'sExact Test Used.

The valency of troponin in detecting coronary occlusion in non-STEMI cases was investigated, and troponin at 1.82 mg/dLcutoff detects coronary occlusion with 64% sensitivity and 70% specificity. It was observed that the cutoff value of CK-MB determined to determine coronary occlusion in non-STEMI cases was not statistically significant (Table 7 and Graphic 2).

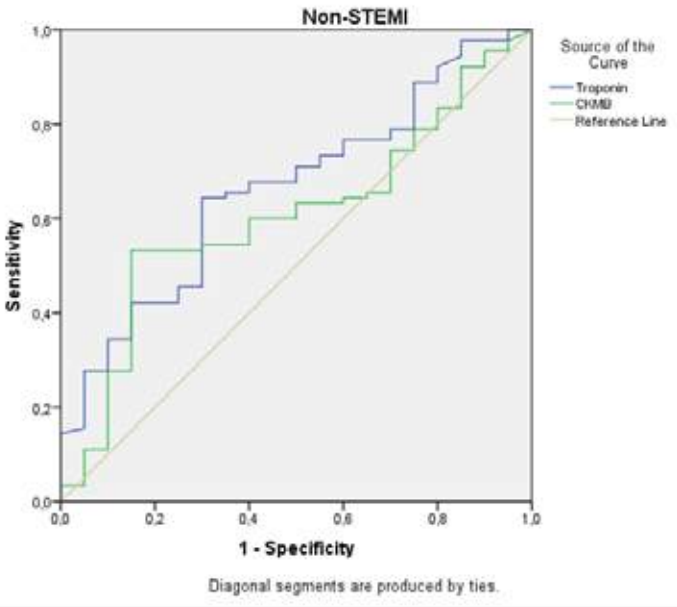


Chart 2 ROC analysis of the power of troponin and CK-MB to detect coronary occlusion in non-STEMI patients

Table 7 ROC analysis values of the power of troponin and CK-MB to detect coronary occlusion in non-STEMI patients

Parameter	CutOff	Sensitivity	Specificity	Area	%95 CI		p
					LowerBound	UpperBound	
Troponine	1,82	64	70	0,664	0,541	0,786	**0.022**
CK-MB	7,61	53	85	0,606	0,479	0,733	0.141

Discussion: 294 cases were included in our study. 36.2% of the cases were female and 63.8% were male. The mean age was calculated as 65.82±11.7 years. The mean age was 69.52±10.74 years in female patients and 63.7±11.72 years in male patients. In the study of Fesharaki et al. in which they evaluated the valency of troponin in ACS in CRF patients; 90 patients were included in the study; 58.9% of the cases were male and 41.1% were female; mean age was 61.76 ± 18.87 years (9). In the study of Katerinis et al. in which the elevation of troponin values in CRF patients was examined; 50 cases were included in the study; 64% of the cases were male, 36% were female, and the mean age of all cases was 62.8 ± 13.6 years (10). Again, in the study of Kraus et al.; 1494 cases were included in the study, it was reported that 42% of the patients with CRF were female and 58% were male, and the median age in patients with CRF was 72 (IQR:9) years (11). In our study, as in the literature, it was seen that the rate of male cases was high and the mean age was similar to the literature.

In the study of Bozbaş et al.; troponin is a significant diagnostic biochemical test in detecting ACS; It has been reported that troponin I has a more significant diagnostic value in the diagnosis of MI compared to both troponin T and CK-MB (12). In the study of DeFilippi et al.; It has been found that troponin is approximately 2 times higher in CRF patients compared to the normal population, and it has been reported that high troponin levels are associated with cardiac pathologies in these patients (13). In the study of Abbas et al., the diagnostic value of troponin for ACS was measured in patients with CRF and according to the data obtained; It has been accepted that increased troponin in CRF patients is associated with cardiovascular events and that this increase may be due to silent infarction (14,15). In the study of Troyanov et al.; It has been reported that high troponin levels detected in asymptomatic CRF patients are statistically significantly associated with ACS (16). In the study of Katerinis et al.; it is caused by severe cardiac pathologies such as ACS, left ventricular hypertrophy and heart failure in CRF patients with high troponin levels; it has been stated that it is very difficult to clearly reveal the pathologies in these patients (10). In the study of Kumar et al., dialysis patients without cardiac complaints were examined and it was reported that increased troponin level was associated with CAD, left ventricular hypertrophy, low ejection fraction of the left ventricle, and high serum phosphate (17).

In addition to all these works; In the cohort studies of Iliou et al.; Asymptomatic chronic hemodialysis patients were followed for two years and it was reported that high troponin levels were not associated with major cardiac damage (18). In the study of Ishii et al.; Hemodialysis patients were followed for 2 years and it was concluded that there was no relationship between troponin levels obtained in these patients and major cardiac damage and mortality (19). Again, in the study of Khan et al. with a population of 126 patients with end-stage renal disease, there was no significant difference between patients with normal TnI levels and patients with high TnI levels in terms of all-cause mortality, cardiac mortality, all-cause hospitalization or cardiac admission. It has been reported that it is not (20). In the study of Fesharaki et al., it was reported that troponin did not have a statistically significant diagnostic value for ACS in patients with CRF (9).

Conclusion: When all this literature information is evaluated; The efficacy of troponin for the diagnosis of ACS in CRF patients is still unclear. Troponin levels in CRF patients are affected by creatinine and GFR levels and are higher than the normal population. However, it also increases significantly in ACS cases. In our study, the sensitivity and specificity of troponin cutoff values for the diagnosis of ACS in patients with CRF were found to be low.

Mortality is also high in patients with high troponin. For these reasons, we think that it is not correct to attribute the troponin elevation seen in CRF patients only to renal failure, and that it is a valuable marker for the diagnosis of ACS, especially when evaluated together with the patient's clinic.

RESOURCES

1. NationalKidney Foundation. K/DOQI clinicalpracticeguidelinesforchronickidneydisease: evaluation, classificationandstratification. Am J KidneyDis. 2002; 39(2):1–266.

2. Foley R, Parfrey P, Harnett J, Kent G, Martin C, Murray D. Clinicalandechocardiographicdisease in patientsstartingend-stagerenaldiseasetherapy. KidneyInt 1995;47:186-92.

3. Owen W, Madore F, Brenner B. An observationalstudy of cardiovascularcharacteristics of long-termend-stagerenaldiseasesurvivors. Am J KidneyDis 1996; 28:931-6.

4. Gibler W, Runyon J, Levy R, Sayre M, Kacich R, Hattemer C, et al. A rapiddiagnosticandtreatmentcenterforpatientwithchestpain in emergencydepartment. AnnEmergMed. 1995;25:1-8.

5. Chan D, Ng L. Biomarkers in acutemyocardialinfarction. BMC Med. 2010;8:34-44.

6. Sheehan P, Vasikaran SD. Theevolvingclinical role of cardiactroponinsandnewacutemiyokardialinfarctionguidelines: Implicationsfortheclinicallaboratory. ClinBichemistRev 2001; 23: 52-65.

7. Gerhart W, Ljungdahl L. Troponin T: A sensitiveandspecificdiagnosticandprognostic marker of myocardialdamage. ClinChimActa 1999; 272: 47-57.

8. de Feyter PJ, Ozaki Y, Baptista J, Escaned J, Di Mario C, de Jaegere PP, Serruys PW, Roelandt JR. Ischemia-related lesion characteristics in patients with stable or unstable angina. A study with intracoronary angioscopy and ultrasound. Circulation. 1995 Sep 15;92(6):1408-13. doi: 10.1161/01.cir.92.6.1408. PMID: 7664420.

9. JafariFesharaki M, Alipour Parsa S, Nafar M, Ghaffari-Rahbar M, Omidi F, Karimi-Sari H. Serum Troponin I Level forDiagnosis of AcuteCoronarySyndrome in PatientswithChronicKidneyDisease. Iran J KidneyDis. 2016 Jan;10(1):11-6. PMID: 26837675.

10. Katerinis I, Nguyen QV, Magnin JL, Descombes E. Cardiacfindings in asymptomaticchronichemodialysispatientswithpersistentlyelevatedcardiactroponin I levels. Ren Fail. 2008;30(4):357-62. doi: 10.1080/08860220801947355. PMID: 18569907.

11. Kraus D, vonJeinsen B, Tzikas S, Palapies L, Zeller T, Bickel C, Fette G, Lackner KJ, Drechsler C, Neumann JT, Baldus S, Blankenberg S, Münzel T, Wanner C, Zeiher AM, Keller T. CardiacTroponinsfortheDiagnosis of AcuteMyocardialInfarction in ChronicKidneyDisease. J AmHeartAssoc. 2018 Oct 2;7(19):e008032. doi: 10.1161/JAHA.117.008032. PMID: 30371308; PMCID: PMC6404905.

12. Bozbas H, Korkmaz ME, Atar I, et al. Serum levels of cardiacenzymesbeforeandafterrenaltransplantation. ClinCardiol. 2004;27:559-62.

13. deFilippi C, Seliger SL, Kelley W, Duh SH, Hise M, Christenson RH, Wolf M, Gaggin H, Januzzi J. Interpretingcardiactroponinresultsfromhigh-sensitivityassays in chronickidneydiseasewithoutacutecoronarysyndrome. ClinChem. 2012 Sep;58(9):1342-51. doi: 10.1373/clinchem.2012.185322. Epub 2012 Jul 12. PMID: 22791885.

14. Nasir A Abbas, R Ian John, Michelle C Webb, Michelle E Kempson, Aisling N Potter, Christopher P Price, Susan Vickery, Edmund J Lamb, CardiacTroponinsandRenalFunction in NondialysisPatientswithChronicKidneyDisease, ClinicalChemistry, Volume 51, Issue 11, 1 November 2005, Pages 2059–2066, https://doi.org/10.1373/clinchem.2005.055665.

15. Mallamaci F, Zoccali C, Parlongo S, Tripepi G, Benedetto FA, Cutrupi S, et al. Troponin is relatedtoleftventricularmassandpredictsall-causeandcardiovascularmortality in hemodialysispatients. Am J KidneyDis

2002;40:68–75.

16. Troyanov S, Ly QH, Schampaert E, Ammann H, Laumie`reG, Madore F, Que`rin S.Diagnosticspecificityanddprognosticvalue of cardiactroponins in asymptomaticchronichaemodialysispatients: a 3 yearprospectivestudy. Heart, 2005;91:1227–1228.

17. Kumar N, Michelis MF, DeVita MV, Panagopoulos G, Rosenstock JL. Troponin I levels in asymptomaticpatients on haemodialysisusing a high-sensitivityassay. NephrolDialTransplant. 2011;26:665-70.

18. Iliou MC, Fumeron C, Benoit MO, Tuppin P, Calonge VM, Moatti N, Buisson C, JacquotC.Prognosticvalue of cardiacmarkers in ESRD: chronichemodialysisandnewcardiacmarkersevaluation (chance) study. Am J KidneyDis,2003 ;42:513–23.

19. Ishii J, Nomura M, Okuma T, Minagawa T, Naruse H, Mori Y, Ishikawa T, Kurokawa H, Hirano T, Kondo T, NagamuraY, Ezaki K, Hishida H. Risk stratificationusing serum concentrations of cardiactroponin T in patientswithend-stagerenaldisease on chronicmaintenancedialysis.ClinChimActa, 2001;312(1–2):69–79.

20. KhanIA,WattanasuwanN,Mehta NJ, Tun A, SinghN, Singh HK, Vasavada BC, Sacchi TJ. Prognosticvalue of serum cardiactroponin I in ambulatorypatientswithchronicrenalfailureundergoinglong-termhemodialysis: a two-yearoutcomeanalysis. J AmCollCardiol 2001;38(4):999–1001.

Bilateral Scapula Fracture as a Result of Electric Shock: A Rare Case

Ali Sarıdaş, Kübra Demir Çim

Introduction: The scapula is a bone that provides a connection between the upper limb and the trunk, which has important tasks in the coordination of complex shoulder joint movements. It is often seen in high-energy traumas accompanied by other injuries. The aim of this study was that fractures may occur in the bones due to falls in patients who come with the complaint of electric shock.

Case: A 41-year-old male patient presented with back and shoulder pain as a result of electric shock at work. General condition, conscious consciousness, cooperative orienteering, Blood pressure: 110/ 70, pulse: 77/min, respiration number 18/minute, fever: 36.6, oxygen saturation: 96, blood sugar: 122. On physical examination, muscle strength and sensory examination in bilateral lower and upper extremitary are natural. Other system inspections are natural. Nausea, vomiting are present. Horizantal slowing nystagmus present. Shoulder X-ray is requested from the patient who has no signs of additional injury from the outside and pathology is not detected. In Computerized Tomography imaging; Multiple fracture lines and deformed appearance are observed in the left and right scapula. The patient was consulted with orthopedics and bilateral shoulder strap was applied.

Conclusion: Due to the mechanism of scapula fractures, the fracture pattern should be evaluated by 3D computed tomography to understand the fracture pattern, and the decision for surgical treatment should be made after a good physical examination and radiological evaluation. Injuries that accompany scapula fractures must necessarily be considered. However, conservative treatment is sufficient in most patients.

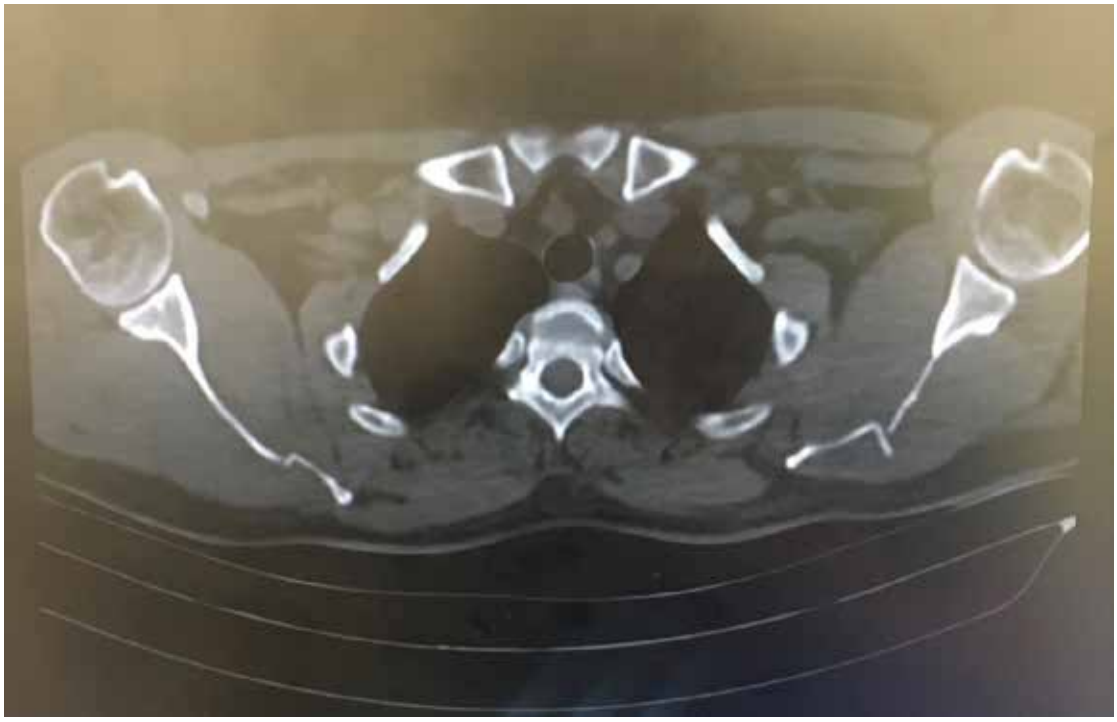


Figure 1: Bilateral scapular fracture due to electric shock

One of the Rare Diagnoses in Patients Presenting to the Emergency Department with Fever: Malaria

Kemal Şener

Introduction: Malaria is a parasitic disease transmitted to humans by the Anopheles mosquito. It is usually seen in people traveling to areas where Malaria is endemic. It infects more than three million people in about 100 countries and causes more than 400,000 deaths. Malaria cases in our country; It is seen after travel to areas where malaria is endemic. In this case series, we wanted to draw attention to our 3 patients who had a history of traveling abroad and were diagnosed with malaria.

Cases

Case-1: A 29-year-old male patient was admitted to our clinic with fever, joint pain, weakness, and headache. He had a history of going abroad about 4 months ago and was diagnosed with malaria. Artemether-lumefantrine treatment for malaria was planned as twice a day for 3 days.

Case-2: A 26-year-old male patient was referred to our hospital from an external center due to high thrombocytopenia infection values. It was learned that the patient had a recent travel history from Africa and had lived in Tanzania for 22 months. Due to the patient's travel history and resistant fever, malaria screening was performed. The patient was diagnosed with P.Falciparum malaria. The patient was diagnosed with P.Falciparum malaria. Since the patient had hypotension and tachycardia and his general condition was poor, the patient was followed up primarily in the intensive care unit for 5 days and then in the service for 3 days.

Case-3: A 32-year-old male patient is admitted to our outpatient emergency department with complaints of fever attacks, headache and malaise. It was learned that the patient had a history of returning from Africa 1 week ago and received malaria treatment about 4 months ago. As the peripheral smear was found to be compatible with P.falciparum malaria, the patient was started on artemether-lumefantrine treatment with 6 doses for 3 days.

Conclusion: Fever is the main symptom of malaria. Travel history should be questioned in patients who come to the emergency department with fever, and malaria should not be forgotten in the differential diagnosis of fever cases whose source cannot be found.

Keywords: Malaria, emergency medicine, Travel-Related Illnesses

Introductıon

Malaria is a parasitic disease transmitted to humans by the Anopheles mosquito. There are 5 subspecies of Plasmodium genus parasites: P.falciparum, P.vivax, P.ovale, P.malariae, P.knowlesi. Symptoms typically include fever, malaise, vomiting, and headache. In severe cases, mortality may occur. It is usually seen in people traveling to areas where Malaria is endemic. Although it is seen at the earliest 1 week after travel (most often 7-30 days), it is present in cases seen after 1 year (1,2). It infects more than three million people in about 100 countries and causes more than 400,000 deaths. Domestic malaria cases were followed in our country before 2000. P. vivax was problematic in the vast majority of these cases. According to the data of official institutions; Domestic malaria cases observed in our country in 2010-2013 were relapse cases previously infected with P. vivax, and no local cases were reported after 2014. (3,4). Malaria cases in our country; It is seen after travel to areas where malaria is endemic. It should be noted that the number of travels to these endemic regions has increased in recent years (5,6). In this case series, we wanted to draw attention to our 3 patients who had a history of traveling abroad and were diagnosed with malaria.

Cases

Case-1: A 29-year-old male patient was admitted to our clinic with fever, joint pain, weakness, and headache. The patient has no known history of comorbid disease and drug use. The patient, who had a history of going abroad about 4 months ago, was diagnosed with malaria after this trip (Bali) and was treated for malaria. The patient was hospitalized for infectious diseases. He was diagnosed with P. falciparum malaria as a result of the peripheral smear sent to the malaria fighting unit. Artemether-lumefantrine treatment was administered to the patient in 2 doses per day for 3 days. The patient, who was hospitalized for 5 days, was discharged in good health.

Case-2: A 26-year-old male patient was referred to our hospital from an external center due to high thrombocytopenia infection values. There was no comorbid disease and medication used in the patient's medical history. It was learned that the patient had a recent travel history from Africa and had lived in Tanzania for 22 months. He had no previous history of malaria. Vital signs of the patient; fever: 37.4, blood pressure arterial: 90/60, pulse: 120/min, SpO2: 100%. Due to the patient's travel history and resistant fever, malaria screening was performed. The patient was diagnosed with P.Falciparum malaria. Since the patient had hypotension and tachycardia and his general condition was poor, the patient was followed up primarily in the intensive care unit for 5 days and then in the ward for 3 days. Artemether-lumefantrine treatment for malaria was planned as twice a day for 3 days. The patient was discharged after treatment.

Case-3: A 32-year-old male patient is admitted to our outpatient emergency department with complaints of fever attacks, headache and malaise. It was learned that the patient had a history of returning from Africa 1 week ago and received malaria treatment about 4 months ago. The patient did not have any other drug use or comorbid disease. There was no abnormality in the patient's vitals at the time of admission, except that he was fever: 37.8. As the patient had a history of malaria and a recent travel history, the patient was admitted to the infectious diseases service with a preliminary diagnosis of malaria. Since the peripheral smear examination was compatible with P.falciparum malaria, the patient was started on artemether-lumefantrine treatment with 6 doses for 3 days. After 4 days of treatment, his general condition was good and he was discharged after his clinical improvement.

Discussion and Conclusion

Although malaria is one of the most important infectious diseases for our country, a serious decrease was observed in the prevalence of infection after taking measures to combat the disease in 1926. After the recommendations of the World Health Organization, an even more intense effort was made for the eradication of 1955 malaria. After an effective struggle, Turkey reduced the number of cases from 11381 in 2000 to 9 cases in 2010, all of which were relapsed patients, and provided a significant reduction in the number of malaria cases. It has been classified as in the elimination phase by the World Health Organization (7,8). Malaria has started to be one of the important public health issues again due to tourism travels between countries, increase in workforce mobility, and recent migrations from Syria to our country (9). All 3 of our cases have a history of recent travel to malaria-risk areas.

Symptoms such as fever, sweating, chills, fatigue and headache can be seen in malaria patients. It can also cause fatigue, nausea, muscle pain and sometimes diarrhea; It can be confused with conditions such as influenza and gastroenteritis. Fever is the most basic symptom of malaria (10,11).

The World Health Organization recommends artemycin-based treatments such as artesunate+mefloquine, artemether+lumefantrine or artesunate+amodiaquine in cases of non-complicated P. falciparum and P. vivax malaria (12). Artemether-lumefantrine treatment was applied in our 3 cases. Although recurrences were reported as a result of the artemether-lumefantrine treatment regimen in a study by Bozkurt et al., treatment success was achieved in our cases (13).

As a result, travel history should be questioned in patients who come to the emergency department with fever,

and malaria should not be forgotten in the differential diagnosis of fever cases whose source cannot be found.

Referanslar

1) WHO (2019). World Malaria Report 2019. Switzerland: World Health Organization. pp. xii–xiii, 4–10. ISBN 978-92-4-156572-1.

2) Kantele A, Jokiranta TS. Review of cases with the emerging fifth human malaria parasite, Plasmodium knowlesi. Clin Infect Dis 2011; 52: 1356-62.

3) Sümeyye KAZANCIOĞLU, Hürrem BODUR. Evaluation of Imported Malaria Cases: Experience of A Training and Research Hospital in Ankara. Value Health Sci 2022; 12(1): 1-5. doi: https://dx.doi.org/10.33631/sabd.1053941

4) T.C. Ministry of Health. Health Statistics Yearbook 2019 [Internet]. [Cited: 2020 April 15]. Available from:https://dosyasb.saglik.gov.tr/Eklenti/40566,healt h-statistics-yearbook-2019pdf.pdf?

5) Özmen BÇ, Sönmezer MÇ, Tortop S, Ünalan T, Bölek H, Altıntop SE, ve ark. Sıtmada profilaksi ve erken tanı için farkındalığın önemi: Türkiye'de yurt dışı kaynaklı iki sıtma olgusu. Mikrobiyol Bul. 2019; 53(4): 472-9.

6) Tünger Ö, Çakmak A, Özbilgin A,Tunalı V, Çetin ÇB. Türkiye'de import sıtma: plasmodium falciparum / plasmodium vivax miks enfeksiyonunda tanının tedavideki önemi. Türkiye Parazitol Derg. 2018; 42(2): 164- 7.

7) Dündar İH. Sıtma. Topçu AW, Söyletir G, Doğanay M.(editör) Enfeksiyon Hastalıkları ve Mikrobiyolojisi. 3. baskı. İstanbul: Nobel Tıp Kitabevleri; 2008: p.927-46

8) Özbilgin A, Topluoglu S, Es S, Islek E, Mollahaliloglu S, Erkoc Y. Malaria in Turkey: Successful Control and Strategies for Achieving Elimination. Acta Trop 2011; 120: 15-23.

9) Özlem Gül, Dilek Yıldız Sevgi, Alper Gündüz, Aziz Ahmad Hamidi, Ahsen Öncül, Ahmet Şanlı Konuklar, et al. The Medical Bulletin of Şişli Etfal Hospital, Volume: 50, Number 2, 2016

10) Akdur R. Sıtma. 1. baskı. Ankara: TC Sağlık Bakanlığı; Sıtma Savaşı Daire Başkanlığı Yayını; 2001.

11) Oh HML, Kong PM, Snodgrass I. Importedmalaria in a Singapore Hospital: Clinical presentation and outcome. Int J Infect Dis 1999; 3: 136-9.

12) Centers for Disease Control and Prevention. Malaria Treatment [Internet]. [Cited: 2020 December 10]. Available from: https://www.cdc.gov/malaria/diagnosis_treatment/trea tment.html.

13) Bozkurt I, Karslioglu M, Esen S. Seyahat ilişkili sıtma olgularının klinik ve laboratuar özelliklerinin değerlendirilmesi; bir üniversite hastanesi deneyimi. MJIMA. 2018; 7: 26.

Holistic Approach To The Complaint Of Shortness Of Breath

Kemal YILDIRIM, Abdullah İLHAN, Dilay SATILMIŞ, Erdem ÇEVİK

Sultan II. Abdülhamit Han Training and Research Hospital, İstanbul

Introduction: Although shortness of breath is often caused by the lungs or heart, pathology developing in any organ in our body may cause the patient to present to the Emergency Department with shortness of breath. It should not be forgotten that there may be causes of dyspnea other than pneumonia, heart failure, reactive airway disease(1).

Case: A 74-year-old male patient developed syncope while being examined in an external medical center with the complaint of shortness of breath. The patient was accepted for pulmonary computerized angiography imaging by the pulmonary physician on duty in our hospital with a preliminary diagnosis of pulmonary embolism.

When the patient was brought to the emergency room, his general condition was poor, his consciousness was clear. Vital signs were: 71/33mmHg Pulse: 96 beats/min. Fever: 36 Spo2: 83 respiratory rate: 28 blood glucose: 99. On physical examination, diffuse tenderness was found in the abdomen. Pulmonary computerized angiography was not planned due to elevation in kidney function tests, and perihepatic fluid and leveling were detected in the abdominal region that entered the thoracic image in the thorax computed tomography taken in an external medical center (Fig.1). Upon physical examination a nasogastric tube (NG) was inserted, and massive hemorrhage was observed in the aspiration performed after NG insertion. Intubation was decided upon initiation of gasping in the patient. With the preliminary diagnosis of gastrointestinal perforation, non-contrast abdominal CT was planned, diffuse air and fluid levels were observed in the abdomen in the CT (Fig.2). An emergency operation was planned by the general surgery clinic and he was hospitalized.

Conclusion: Dyspnea is a clinical term that describes the sensations of breathlessness and shortness of breath it has a complex pathophysiology. Geriatric patients presenting with dyspnea requires a multidisciplinary approach and careful differential diagnosis because they can present with different clinical presentations and have limitations in diagnosis and treatment approaches (2) In this case, we aimed to draw attention to the uncommon causes of shortness of breath and to draw attention to the need to approach the images taken holistically.

1.Wills, Charlotte Page, Megann Young, and Douglas W. White. "Pitfalls in the evaluation of shortness of breath." ***Emergency Medicine Clinics*** 28.1 (2010): 163-181.

2.Dursun, A. B., Güven, S. F., Saka, D., Sarıoğlu, N., & Şipşit, T. (2001). Klinik pratikte pulmoner tromboemboliye yaklaşım. Tüberküloz ve Toraks Dergisi, 49(4), 464-70.

Intrahospital Transport of a Trauma Patient from Helipad to the Emergency Department during the Covid-19 Pandemic: A Simulation Workshop

Banu Arslan[1], Mehmet Necmeddin Sutasir[1], Mucahit Kapci[1],Semih Korkut[1], Selim Altinarik[2]

[1]Basaksehir Cam and Sakura City Hospital.
[2]General Directorate of Emergency Health Services, Istanbul Provincial Health Directorate.

Abstract

A substantial surge in natural disasters has been observed in the last 50 years, due to rapid growth of the world's population, climate change and increasing extreme weather events. The combination of increasing number of natural disasters with the COVID-19 pandemic has made it quite possible to experience complex disasters. Complex disasters could be even dangerous and destructive. It is extremely necessary that healthcare facilities are meticulously prepared for complex disasters to maintain high quality patient care during these chaotic times. With this simulation workshop, we aimed to form comprehensive guidance on the intrahospital transportation of trauma patients while maintaining the highest level of patient care. Every important stage of patient transfer from the helipad to the emergency department was demonstrated in this simulation.

Keywords: Earthquake, Pandemic, Organization, Patient transport, Helipad

Introduction

Disastrous events can easily overwhelm the capacity of healthcare facilities and cause great damage and human suffering. They are uncommon; however, they may have a catastrophic impact on hospitals, healthcare workers, and the affected population's health. Basically, there are six types of natural disasters: geophysical, hydrological, biological, climatological, meteorological, and extraterrestrial (1). With climate change and more extreme weather events, the frequency of natural disasters has been escalated in the last 50 years (2). Thus, it became more likely to see complex disasters involving two or more causes. We believe that it is extremely necessary that healthcare facilities are meticulously prepared for complex disasters to maintain high quality healthcare service during chaotic times.

Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SarsCOV-2), first emerged in December 2019 in Wuhan, China (3). The World Health Organization declared the outbreak as a Global Public Health Emergency Concern at the end of January 2020 and a pandemic on 11 March 2020 (4). According to Worldometer, as of November 11, 2021, there had been 252,321,254 confirmed cases, 5,092,080 reported deaths, and 228,348,134 recovered individuals across the world (5). Whereas the future of this biological disaster is unknown, it is quite possible that the COVID-19 pandemic would continue to pose many challenges over the coming years.

The combination of geological and biological disasters could be even dangerous and destructive. Turkey is one of the most active earthquake zones, and earthquakes that have occurred in this geographical region have been classified as major disasters (6). Early admissions to hospitals after an earthquake usually occur due to soft tissue traumas, multiple extremity fractures, and compartment syndromes (7). Treatment of the entrapped victims should start as soon as possible. If it is possible, aggressive fluid repletion should start before the extrication of entrapped victims, while they are still under the rubble. Rescuers should be aware that disaster survivors may deteriorate quite seriously after being extricated from under the rubble. Therefore, appropriate transportation of these patients to the closest health institutions in a timely manner is crucial (8, 9).

The utilization of air medical services in severe trauma can improve patient outcomes by reducing the time needed to transfer patients from the incident field to a trauma center (10). On the other hand, poorly organized patient transfer can easily cause unexpected events and contribute to morbidity and mortality (11). Therefore, whole process should be well organized with aiming the continuity of high-quality of medical care. The Covid-19 pandemic highlighted some concerns that air medical services were facing. The risk of disease transmission appears to be higher in the aeromedical crew compared to the in-hospital healthcare workers due to limited space, time, and patient information (12). In addition, intrahospital trauma patient transport involves some unique challenges that can be managed with proper patient monitoring, equipment, and experienced team. The Covid-19 pandemic led us to reassess this highly risky process and apply some additional measures to our intrahospital patient transport process to ensure safety of the patient and transportation team. Hereby, we are presenting our workshop to share our experience in the intrahospital transportation of a trauma patient who is injured in an earthquake during the Covid-19 pandemic period. With this workshop, we aimed to demonstrate every important stage of patient transfer from the helipad to our emergency department.

Case Presentation

Preparation Phase

The staff to be assigned to work in this team was selected based on their competency and experience. The operation was led by an emergency medicine physician and staffed with highly experienced and qualified personnel. Besides the emergency medicine physician, the team included four nurses and a large group of security, transport, and technical staff. Competency-based training was given to all staff involved in patient management. The whole team was also trained for preventing potential work-related injuries such as rotor blade injuries, chemical exposure, and back injuries.

The most convenient transfer route was defined in advance. The security team was held responsible for the security and clearance of the route. Before transportation started, the medical team makes sure that the patient is stable, and they are well-equipped to intervene in any adverse events or deterioration in the patient's clinical condition. Personal protective equipment (PPE) and other materials required for emergency procedures such as cardiopulmonary resuscitation and definitive airway implementation were prepared and checked beforehand. The transport equipment was available and ready to use in certain labeled boxes (13). During the preparation stage, we used the following pre-transfer checklist.

Circulation: A portable monitor with an illuminated display was ready to record heart rhythm and vital parameters. A defibrillator was available with a fully charged battery. Intravenous fluids, vasopressors, analgesics, resuscitation drugs and the drugs used for rapid sequence intubation (RSI) with a various syringe and vascular access devices were ready to use. We had a pad of sterile cloth and gauze to compress in case of any bleeding, emergency splints to provide neurovascular protection, and a tourniquet to control any life-threatening extremity hemorrhage in our hemorrhage control kit.

Airway: Various size endotracheal tubes (ETT), alternative airway management devices, bag valve masks for adult and pediatric patients, waveform capnograph, video laryngoscope, and suction are necessary to manage patients who develop a compromised airway or respiratory failure during transfer. In addition, cervical collars in different sizes should be in the transport bag.

Breathing: Chest tube should be implemented before air transport for patients with pneumothorax. However, the chest tube drainage system setup should be ready to use for patients who develop pneumothorax during transfer or in case of any equipment problems.

Besides the pre-transfer checklist, other prerequisites were a warming blanket, nasogastric tube, and additional batteries.

Pre-landing Phase

Ground safety in and around the helipad was established by security before the helicopter approached. After the security confirmed the ground safety by mobile communication tools, the landing permission was given to the helicopter. The technical personnel ensured that the runway doors and elevators are only used by the team. Only the team leader, two nurses, and two transportation staff proceeded to the 1st safety control point and waited helicopter to land.

Landing Phase and Initial Assessment

Following landing and the rotors came to the complete stop, helipad personnel gave permission with a hand signal to the team waiting on the 1st safety control point to approach the 2nd control point. At the 2nd control point, the team took the patient on a stretcher and get ready to transfer the patient with the helipad personnel (Figure 1).

At the 2nd checkpoint, the team leader confirmed patient information verbally. Then, the team immediately moved back to the 1st checkpoint. The initial assessment including patient history, rapid physical examination, and vitals were completed at the 1st checkpoint. Resuscitation and life-saving procedures were performed under the light of ATLS and ACLS guidelines at this stage. The secondary survey wasn't applied in the helipad area, only lifesaving procedures such as cardiopulmonary resuscitation, defibrillation, bleeding control, neck collar application, adrenaline, and shock treatments were performed in the 1st checkpoint. Because our primary goal was to safely transfer trauma patients to the area where the advanced treatment will be provided.

Patient Transfer

The transfer team consisted of the team leader, four nurses and two transportation staff that were escorted by security staff. The team was fully equipped with all the drugs and instruments required for airway management, oxygenation, ventilation, hemodynamic stabilization, and resuscitation. Patient monitoring including continuous electrocardiogram monitoring, non-invasive blood pressure, oxygen saturation, and the temperature were established and rechecked before the commencement of the transfer to the safe zone. The safe zone was located on the same floor with the 1st and 2nd checkpoint, but inside the building. At the safe zone, the team run through the departure checklist involving both patient's clinical condition and medical equipment (table 1).

After the team became sure that the patient was stable, technical team opened the elevator doors, and the patient's transportation to the emergency department started (Figure 2). During the transportation to the emergency department, the patient was monitored closely and clinical progression on every stage was documented in detail.

Patient Handover

The detailed patient transfer form was clearly documented and involved all stages of the transfer. Besides basic information such patient's name, age, and reason to transfer, clinical progress involving status of vital signs, clinical events, and the treatment given before and during the transfer were included in the patient handover document. Moreover, the documentation of patient transfer that was prepared by the heliport team was added to our transfer documents.

Discussion

According to the current literature, patients who are air transferred are mostly due to trauma (14). The transportation of trauma patients involves a variety of challenges for patients and healthcare workers. Healthcare workers must deal with trauma-related injuries on the one hand and transportation stress on the other hand. Furthermore, during the current pandemic period, there are additional threats that may directly affect patient mortality and morbidity. Therefore, to provide the highest level of care to these extremely vulnerable patient groups, proper and meticulous preparation should be done before transferring these patients.

The transmission of SARS-CoV-2 occurs when virus droplets enter the body or contacting with mucous membranes from contaminated surfaces (15). The high transmission rate of COVID-19 required both hospitals and health policymakers to take necessary measures in preventing disease transmission, patient management, and meeting with COVID-19 related additional needs (16). PPE is crucial for healthcare workers to prevent transmission of the infection while evaluating suspected or diagnosed patients. COVID-19 can be diagnosed with a positive antigen test and chest CT. However, limited resources and the little time spent in Helipad areas do not allow healthcare workers to make the definitive diagnosis. Since earthquake victims cannot be easily evaluated for COVID-19 in the field, we believe that the standardized PPE should be worn by healthcare workers and support staff during patient transportation.

The standard PPE involves particulate filtering facepiece respirators (N95 or higher filter efficient levels) aprons, gloves, and protective glasses. During lifesaving procedures such as chest compression, airway management, defibrillation healthcare workers are at risk of exposure to patient body fluids and contamination. During cardiopulmonary resuscitation (CPR), safety is a priority, and the order of priority is stated as the practitioner, other healthcare workers, and the patient (13). In the management of patients with suspected or diagnosed COVID-19, the risk stratification for acute worsening or cardiac arrest should be done as early as possible. Chest compressions are potentially aerosol-diffusing, and airway management is the definitive aerosol-spreading procedure. Therefore, it is necessary for the practitioner to perform the intervention with at least a filtering face-piece (FFP) 3 mask (if not an FFP2/N95 mask), face and eye protection, a long waterproof apron, and gloves.

Conclusion

Hospitals with helipads have a great potential to improve trauma patient care and create value for critical patients. Guidelines promotes measures to ensure safe patient transport. Advanced preparation and optimal coordination of the transport process is vital to managing trauma patients and improve quality of healthcare.

Key Points:

- Experienced and competent team members.
- Optimally designed tasks and processes.
- Appropriate equipment containing transport bag.
- Personal protective equipment for infection control.
- Careful evaluation of the C-A-B-D.
- Stabilization of the patient before transfer started.
- Treating life-threatening emergencies as soon as possible.
- Extensive monitoring throughout the transfer
- Evaluation of the patient at every stage.
- Detailed clinical progress note.

Conflict of Interest

The authors report no conflict of interest in this work.

Animal and Human Rights Statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later

amendments or comparable ethical standards. No animal studies were carried out by the authors for this article.

Funding; None

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Figure 1: The team is receiving the patient at the 2nd check point.

Figure 2: Patient transportation to the emergency department

Figure 3: Patient handover

Patient		Equipment	
Circulation:	Adequate perfusion? Need for vasopressor? Need for iv fluids? Hemorrhage controlled? Splint? Fasciotomy?	Monitoring:	Electrocardiography, pulse oximetry, blood pressure, end-tidal carbon dioxide, temperature monitors are attached and working?
Airway:	Safe? Stable? Secured? Need for intubation?	Peripheral IV devices:	Adequate access? Drugs, pumps and lines are secured?
Breathing:	Adequate ventilation? Oxygen saturation >95%? Need for chest tube? Chest drain is effective?	Drugs:	Enough supply? Intravenous fluids, vasopressors, analgesics, muscle relaxants, sedatives, and resuscitation drugs
Disability	Glasgow coma scale? AVPU? Blood glucose? Pupillary light reflexes? Lateralization?	Trauma:	Cervical collar? Trauma board? Pelvic binder? Suturing, thoracotomy, chest tube, and fasciotomy kits?
Exposure?	Risk for hypothermia? Need for warm blanket?	Other	Enough oxygen supply? Battery?

Table1: Departure checklist

References

1. WMO Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes (1970–2019) (WMO-No. 1267)

2. Severin PN, Jacobson PA. Types of Disasters. Nursing Management of Pediatric Disaster. 2020 May 14:85–197. doi: 10.1007/978-3-030-43428-1_5. PMCID: PMC7235629.

3. Zhonghua Liu Xing Bing Xue Za Zhi. [The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19) in China].

4. WHO. Coronavirus Disease (COVID-19) Outbreak. 2020; Erişim adresi: https://www.who.int

5. World Meter Corona Virus Update (Live) https://www.worldometers.info/coronavirus/ Available

6. Taviloğlu K. 17 Ağustos 1999 Marmara depreminin ardından felaket organizasyonunda deredeyiz. Ulusal Cerrahi Dergisi 1999;6:333.

7. Görmeli G, Görmeli CA, Güner S, et al. Dursun R. The clinical profile of musculoskeletal injuries associated with the 2011 Van earthquake in Turkey. Eklem Hastalik Cerrahisi 2012;23(2):68-71. PMid:22765483

8. Vanholder R, Stuard S, Bonomini M, et al. Renal disaster relief in Europe: the experience at L'Aquila, Italy, in April 2009. Nephrol Dial Transplant 2009;24(10):3251- 5. Epub 2009 Jul 10. http://dx.doi.org/10.1093/ndt/gfp335 PMid:19592598

9. Akira Fuse, Hiroyuki Yokota. Lessons Learned from the Japan Earthquake and Tsunami, 2011 Journal of Nippon Medical School Vol 79 (2012) No.4 p.312-315.

10. Galvagno S.M., Haut E.R., Zafar S.N., et. al.: Association between helicopter vs. ground emergency medical services and survival for adults with major trauma. J Am Med Assoc 2012; 307: pp. 1602-1610.

11. Joosse P, Saltzherr TP, van Lieshout WA, van Exter P, Ponsen KJ, Vandertop WP, et al. Impact of secondary transfer on patients with severe traumatic brain injury. J Trauma Acute Care Surg. 2012;72:487–90.

12. Albrecht R, Knapp J, Theiler L, Eder M, Pietsch U. Transport of COVID-19 and other highly contagious patients by helicopter and fixed-wing air ambulance: a narrative review and experience of the Swiss air rescue Rega. Scand J Trauma Resusc Emerg Med. 2020 May 14;28(1):40. doi: 10.1186/s13049-020-00734-9. PMID: 32410706; PMCID: PMC7222521.

13. European Resuscitation Council COVID-19 Guidelines. Erişim adresi: https://www.erc.edu/sites/5714e-77d5e615861f00f7d18/content_entry5ea884fa4c84867335e4d1ff/5ea885f34c8486733 5e4d20e/files/ERC_covid19_pages.pdf?1588257310 Erişim tarihi 7 Mayıs 2020.

14. Gray A, Gill S, Airey M, Williams R. Emerg Med J.Descriptive epidemiology of adult critical care transfers from the emergency department. 2003;20:242- 6.

15. Center for Disease Control CDC. Standard Operating Procedure (SOP) for Triage of Suspected COVID-19 Patients. Published online 2020:1- 5. https://www.cdc.gov/coronavirus/2019- ncov/hcp/non-us-settings/soptriage-prevent-transmission.html

16. Ali I. COVID-19: Are we ready for the second wave? Disaster Med Public Health Prep. 2020;1-8.

Reducing the Risk of Infection Associated with Urinary Catheterization Intervention in the Emergency Department

Hakan DÜLGEROĞLU[1], Ömer Faruk KARAKOYUN[2], **Birdal YILDIRIM**[3]

[1]Muğla Sıtkı Koçman Üniversitesi Tıp Fakültesi
[2]Muğla Eğitim ve Araştırma Hastanesi Acil Servis
[3]Muğla Sıtkı Koçman Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Introduction

Urinary catheterization is a medical procedure developed to access bladder contents. Urine can be collected from the bladder by cystostomy as an invasive method or, as a less invasive option, by urethral catheterization. There are two different types of urethral catheterization (UC) depending on whether it stays in the human body for a short time (less than 30 days) or long-term (more than 30 days). They are used for different indications in UC hospitals. The main indications of these indications are acute urinary retention, surgical intervention on structures adjacent to the urological or genitourinary system, prolonged surgery, serious patients who need to accurately determine the amount of urine output, patients who need to be immobilized for a long time, and intravesical drug administration. It is estimated that 15-25% of hospitalized patients undergo UC at least once during their hospitalization.

It has been reported that the frequency of UC use has increased in the last 20 years. With the increasing use of UC, which is an invasive method, infections related to it are also increasing. Centers for Disease Control and Prevention (CDC) estimates that 2.39 Nosocomial urinary tract infections (NUTI) in every 100 patient admissions in the USA between 1975-1976 and more than 900,000 NUTIs developed in 1992, and an extra expenditure of 600 million dollars was made (1). Although it is not possible to give the general NUTI and urinary catheterization rate for our country, it has been reported that urinary tract infections are the most common nosocomial infections in studies conducted in some centers. The rate of NUTIs among hospital infections varies between 21-49% (2).

Different materials are available for UC. The use of materials such as foley catheter, nelaton catheter and condom catheter are some of them. The biggest advantage of the Foley catheter, which is the most frequently used material, is that it provides the opportunity to observe the urine flow thanks to its transparent structure. In addition, the soft and properly inflated balloon ensures proper positioning of the catheter and balloon to the bladder. The smooth surface minimizes the risk of trauma during insertion and removal. Silicone Foley catheters do not cause allergic reactions, they are preferred over latex catheters.

Complications related to UC are most commonly listed as urinary tract infection, hematuria and pseudo-passage development. Urinary system infection is often caused by the hands of healthcare professionals or ascending by microorganisms colonizing the patient's own colon and/or periurethral area (3). The characteristics of the catheters to be applied affect the risk of developing catheter-related infection. Inexpensive catheters, on the other hand, are not suitable for insertion into the bladder as they are made of latex and plastic. Therefore, less irritating and smooth Teflon, silicone, silicone-elastomer or hydrogel catheters have been developed (4). In catheter-related bacteriuria, most of the bacteria belong to the patient's own colon flora. These bacteria can be caused by the patient's intestinal flora, or it can be bacteria that are acquired from the hospital environment and colonize the intestine. These bacteria colonize the periurethral space. In addition, it is colonized as a result of transfer to the periurethral area by the hands of health personnel or the use of contaminated fluids or instruments (5).

There are four basic principles in the prevention of infections due to urinary catheterization. These are to avoid urinary catheterization if possible, to prevent the development of bacteriuria if catheterization has been perfor-

med, to prevent complications if catheter-related bacteriuria has developed, to comply with aseptic conditions in interventions to the urinary system, and to be fitted by an experienced person (6). Studies show that in 21-37% of cases, a catheter is inserted without an acceptable indication. Therefore, the best way to avoid catheter-related bacteriuria is to avoid catheterization whenever possible. Catheter application indications should be evaluated well, and the benefits and harms of the patient should be weighed. This also helps us to evaluate and develop alternatives to catheterization (7,8,9).

Emergency departments are dynamic patient care areas where patient density is high. Therefore, we think that the risk of developing a UTI is higher in the application of UC in the emergency departments. We plan to reduce the risk of UTI by developing a protocol to standardize the practice of UC in the emergency department.

Materials and Method

We planned our study as a single-center and prospective study to evaluate the contamination status in terms of UTI in patients who underwent UC in the emergency department and to show that this contamination is reduced with the new protocol we will create. Permission for our research was obtained from the Ethics Committee of Muğla Sıtkı Koçman University with the number 22/12/2021-27/IX. For our research, we prepared the research form in which the demographic information of the patients was asked in the first part, and in the second part, questions about the indication for which UC should be applied.

In the first month of our study, 15 interns working in the emergency room filled this form randomly for the UCs they applied. Then, we explained the UC application algorithm we developed for the emergency service to the candidate physicians participating in our research with a 1-hour theoretical lesson. In the second month of our study, UC was applied to the patients according to the "UC application algorithm". In the second month, the candidate physicians filled out the research form randomly from the patients they applied UCs. The research forms obtained at the end of the study were divided into two periods before and after the UC application algorithm training, and the culture samples of the patients were examined through the data processing system. Patients who did not want to participate in the study and who did not have a culture sample after UC in the hospital data processing system were not included in the study.

SPSS program was used for the analysis of the research data. The distribution of the data was analyzed using the Shapiro-Wilk's test. Student's t test was used for normally distributed continuous variables, and Chi-square test was used for categorical variables. The Man Whiney U test was used for the variables that did not fit the normal distribution. Quantitative variables were presented as mean±SD (Standard Deviation) and median (Minimum/Maximum). Categorical variables were shown as n (%). Those with a p value less than 0.05 were considered significant.

Results

A total of 59 patients, 30 (50.8%) male and 29 (49.2%) female, whose consent was obtained, participated in the study. The youngest of the patients was 26, the oldest was 95 years old, and the mean age was calculated as 67.6±18.2. 47 (79.7%) of the patients included in our study had one or more additional diseases in their history. Additional diseases are shown in table.1.

Table1 Additional Diseases

Diseases	N (%)
Hypertension	26 (44,1%)
Diabetes	19 (32,2%)
Heart failure	15 (25,4%)
Kidney failure	10 (16,9%)
Other	7 (11,9%)

The mean BMI of the patients in our study was 25.7±7.2; lowest 15.4; the highest was calculated as 69.2. The distribution of BMI of our patients according to the World Health Organization classification is shown in Table 2.

Table.2 BMI distribution of patients

WHO BMI classification		Distribution of patients N(%)
Too weak	<16	1(1,7%)
Weak	16,0-18,5	2(3,4%)
Normal	18,6-24,9	30(50,8%)
Fat	25-29,9	16(27,1%)
Obese	30-34,9	9(15,3%)
Morbid obese	>35	1(1,7%)
Total		59(100,0%)

The patients were included in the study in two different periods before and after the training in order to compare the applied UC techniques. The patients included in the study in these two periods had similar gender and background characteristics (table.3). UC with the new technique was applied to 31 (52.5%) patients who were included in the study before the UC technique training and 28 (47.5%) patients included in the study after the conventional technique and UC technique training.

Table 3. Distribution of conventional method and new method patients

Female(n)		Sex		Yhronic disease		Total (n,%)
		Male(n)	Yes	None		
UC techniques	Conventional technique	16	15	7	24	31(52.5%)
	New technique	13	15	5	23	28(47.5%)

When the indications for UC insertion were evaluated, it was found that UC was applied in 45 (76.3%) of the patients to monitor the urine output and in 14 (23.7%) to assist the urinary output.

It was determined that there was no relationship between the UC technique applied to the patients and the reproduction in the urine culture (P=0.15). The distribution of the bacteria reproduction in the urine culture of the patients according to the UC application technique is shown in Table.4. The relationship between the application of the UC technique according to BMI and reproduction in urine culture is given in Table.5.

Table.4

	Reproduction in urine culture				
	No Reproduction	Candida	E. coli	Klepsiella p.	P. auregenosa
Conventional technique	19	2	6	3	1
New technique	22	0	4	2	0

Table.5

var		**Reproduction in urine culture**		***P***
		yok		
Too weak	*Conventional technique*	1	0	-
	New technique	0	0	
Weak	*Conventional technique*	0	2	-
	New technique	0	0	
Normal	*Conventional technique*	8	8	0.10
	New technique	3	11	
Fat	*Conventional technique*	2	9	0,35
	New technique	2	3	
Obese	*Conventional technique*	0	2	0.51
	New technique	1	6	
Morbid obese	*Conventional technique*	1	0	-
	New technique	0	0	

Discussion

Urinary tract infections are the most common among healthcare-associated infections, and approximately 80% of UTIs are associated with the use of urinary catheters (10). Catheter-related urinary tract infection can be evaluated according to those who have a urinary catheter and meet the relevant diagnostic criteria. In order to reduce/prevent catheter-related urinary tract infection, all steps including current guideline recommendations should be complied with (10,11).

A total of 59 patients participated in the study, which is close to equal proportion of males and females, whose consent was obtained. In approximately eighty percent of the patients in our study; They had one or more additional diseases in their history. Hypertension and diabetes mellitus were commonly detected in our study in accordance with the literature. 31 treated with conventional technique; Twenty-eight patients who had a catheter inserted with the new technique were included in the study. Urine culture was reproduced in 12 patients with the conventional technique and in six patients with the new technique. Although the difference was not statistically significant, the new technique may have reduced urinary tract infection after application. With larger series and multicenter studies, the decrease may become statistically significant.

Conclusion

Emergency departments are dynamic patient care areas where patient density is high. Therefore, since the risk of developing UTI is higher in the application of UC in the emergency services, this risk can be reduced by giving practical training.

Referances

1. Burke JP, Zavasky DM. Nosocomial urinary tract infections. In: Mayhall CG (ed). Hospital Epidemiology and Infection Control. 2nd ed. Philadelphia: Lippincott Williams and Wilkins, 1999:173-87

2. Willke A, Aysev AD. Epidemiology of nosocomial infections. In: T?mbay E, inci R (eds). The International Symposium and Workshop on Hospital Infection Control, izmir: Ege University Press, 1996:137-44

3. Warren JW. Catheter-associated urinary tract infections. Int J Antimicrob Agents 2001;17:299-303.

4. Wong ES, Hooton TM and Working Group. Guideline for prevention of catheter associated urinary tract infections CDC guidelines, http://www.cdc.gov/ncidod/hip/GUIDE/uritract.htm

5. Burke JP, Zavasky DM. Nosocomial urinary tract infections. In: Mayhall CG (ed). Hospital Epidemiology and Infection Control. 2nd ed. Philadelphia: Lippincott Williams and Wilkins, 1999:173-87

6. Maki DG, Tambyah PA. Engineering out the risk of infection with urinary catheters. Emerg Infect Dis 2001;7:1-6

7. Leblebicioglu H, Esen S, and Turkish Nosocomial Urinary Tract Infection Study Group. Nosocomial urinary tract infections in Turkey: A nationwide multicenter point prevalence study (abstract). 41th Interscience Conferences in Antimicrobial Agents and Chemotherapy, Chicago, USA, 2001:465.

8. Donlan RM, Costerton J.

Biofilms: Survival mechanisms of clinically relevant microorganisms. Clin Microbiol Rev 2002;15:155-66.

9. Sobel JD, Kauffman CA, McKinsey D, Zervos M, Vaquez JA, Karchmer AW, Lee J, Thomas C, Panzer H, Dismukes WE, and the National Institute of Allergy and Infectious Diseases Mycoses Study Group. Candidiuria: A randomized, double-blind study of treatment with fluconazole and placebo. Clin Infect Dis 2000;30:19-24.

10. Healthcare Infection Control Practices Advisory Committee-HICPAC. (2009). Guideline for prevention of catheter-associated urinary tract infections, 2009. Erişim Tarihi:14.10.2017, http://www.cdc.gov/hicpac/pdf/CAUTI/CAUTIguideline2009final.pdf

11. Lo, E. ve ark (2014). SHEA/IDSA practice recommendation: Strategies to prevent catheter-associated urinary tract infections in acute care hospitals: 2014 update. Infection Control and Hospital Epidemiology, 35, 464–479. Erişim Tarihi:14.10.2017, http://www.jstor.org/stable/10.1086/675718.

NECROTİZAN SOFT TİSSUE İNFECTİON: FİGHT AGAİNST TİME FOR SURVİVAL

Rümeysa İnci

Introductıon

Necrotizing soft tissue infections (NSTIs) is a disease characterized by rapidly spreading necrosis of soft tissues and fascia, which can have a fulminant course if not treated properly (1). In this case report we have presented a patient with necrotizing fasciitis.

Case Presentation

The 62-year-old male patient applied to the emergency department with the complaints of wound, edema and pain in the left inguinal region. At the admission, Blood pressure(BP): 150/130 mmHg, pulse: 106 beat per minute, fever: 36 C, oxygen saturation: %96,blood glucose: 297 mg/dl. The patient's past medical history contains diabetes mellitus, hypertension and coronary artery disease. In physical examination, there was swelling, redness, crusted wound appearance, reductable inguinal hernia in the left inguinal.

In laboratory findings, white blood cell: 25.270µL, c-reactive protein : 315, creatinine : 0.56mg/dl , urea: 46 mg/dl , ph: 7.36 hco3: 20.9mmol/L.

In computed tomography of the patient there are diffuse air densities surrounding the vascular structures measuring approximately 92x67 mm around this area and extending under the skin to the inguinal region (Figure 1). Due to this findings the patient diagnosed as NSTIs. In the treatment firstly 2 g seftriaxon was administered then clindamycin 900mg, meropenem 1000mg , and daptomycin 350mg when the patient was admitted. Urgently wound debridement of the left femoral region, aneurysm repair and left femoral artery exploration has done by orthopedic surgery. After 60 days hospitalization to orhopedics and ıntensive care unit patient died.

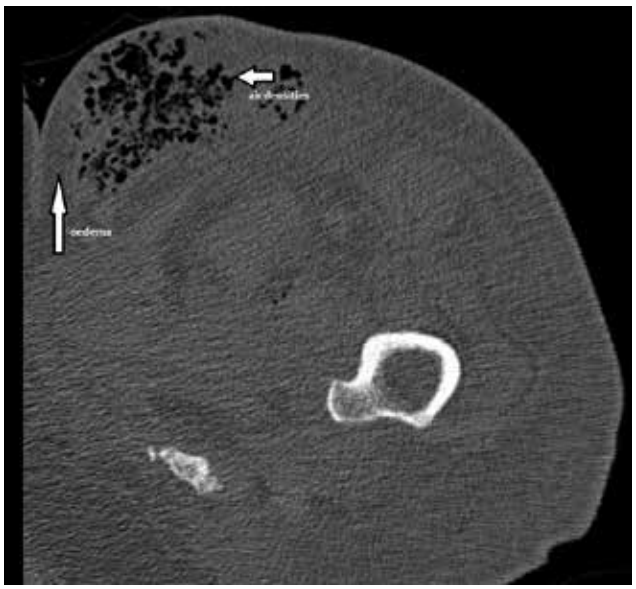


Figure 1: Computed tomography image of the necrotizan fasiitis

Discussion

NSTIs include necrotizing forms of fasciitis, myositis, and cellulitis. These infections are clinically characterized by fulminant tissue destruction, systemic toxicity symptoms and high mortality. It is a condition requiring urgent

intervention that can progress rapidly (2,54 cm/hour) (2). One of the most important findings in his clinic is pain inconsistent with physical examination and tachycardia disproportionate to fever. Crepitation may be seen(3). The cornerstone of basic treatment in NF is operative exploration and surgical debridement. Mortality increases rapidly if delayed for more than 24 hours. The emergency physcians should be aware of NSTIs. Early approaches can prevent mortality.

Figure 2: Necrotizan fasiitis seen on left inguinal region.

References

1. https://www.journalagent.com/travma/pdfs/UTD-97523-REVIEW-VAYVADA.pdf

2. https://www.uptodate.com/contents/necrotizing-soft-tissue-infections?search=nekrotizan%20fasiit&source=search_result&selectedTitle=1~136&usage_type=default&display_rank=1

3. Tintinalli's emergency medicine 9th edition

Aile Hekimi Uzmanlık Öğrencilerinin Acil Tıp Rotasyonu Değerlendirilmesi

Muhammed Semih Gedik[1]

[1]Acil Tıp Ana Bilim Dalı, Kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi, Kahramanmaraş/Türkiye

Amaç: 1. basamak sağlık hizmetleri sunucularının mihenk taşı aile hekimlerimizdir. Çalışmamızın amacı, aile hekimliği uzmanlık öğrencilerinin eğitimleri süresince yaptıkları acil tıp rotasyonu hakkındaki düşüncelerini, acil tıp rotasyonunun kendilerine katkılarını, acil tıp rotasyonun eksikliklerini ve buna neden olan sebepleri uzmanlık öğrencilerinin ve aile hekimi uzmanlarının bakış açısıyla ortaya koymaktır.

Materyal/Metod: Çalışmamıza aile hekimliği uzmanlık öğrencileri ve aile hekimliği uzmanları katıldı. Google formlar kısmında anket hazırlandı ve katılımcılara anket uygulandı. Acil tıp rotasyonu değerlendirme anket formumuz; tıpta uzmanlık kurulu önerileri ve yayınlanan daha önceki çalışmalardan referans alınarak hazırlandı. Çalışmamızda kullanılan anket formu;

1. Sosyo-demografik bilgiler
2. Acil tıp rotasyon hedeflerini, rotasyon öncesi bilip bilmediği
3. Acil tıp rotasyon hedeflerini herhangi bir kaynaktan araştırıp/araştırmadığı, araştırdı ise nereden araştırdığı
4. Acil tıp rotasyonu eğitim sürecinin ve süresinin değerlendirilmesi
5. Acil tıp rotasyon eğitimin sahada karşılaşılan durumlar ile uyumlu olup olmadığı
6. Acil tıp rotasyon eğitiminin kişinin kendisine katkıları
7. Acil tıp rotasyonu ile ilgili genel görüşler ve beklentilerden oluşmaktadır.

Bulgular: Aile hekimliği asistanlarının %67,6'sı acil tıp rotasyon süresinin az olduğunu, bu sürenin arttırılması gerektiğini düşünüyorlar. Aile hekimliği asistanlarının acil tıp rotasyonunda hekimlik görevlerini diğer rotasyonlara göre daha çok yaptıklarını ve acil tıp rotasyonundan ziyadesiyle memnun oldukları saptandı. Yardımcı sağlık personeli eksikliğinden dolayı kliniklerde hekimlerin az da olsa mağduriyet yaşadıklarını ifade ettiler. Çalışmamıza katılan asistanların %91'i acil tıp rotasyon eğitimin sahada karşılaşılan durumlar ile uyumlu olduğunu belirtti. Acil tıp rotasyon eğitiminin kişinin kendisine katkıları sorulduğunda; hastalara acil yaklaşım konusunda faydalı olduğunu, acil servise gelen hastaların acil servis süreçleri hakkında tecrübe ve bilgi sahibi olunduğunu, acil vakalara yaklaşımlarının geliştiğini, acil olan/olmayan hastayı artık daha iyi ayırt edildiği, acil girişimler konusunda bilgi ve tecrübenin arttığını ve acil serviste tıbbi olarak pratiklik kazanıldığı saptandı. Aile hekimliği asistanları rotasyonlarda eğitim saatlerinin arttırılmasını, hocalardan daha fazla fayda sağlanılmasını istiyorlar. Katılımcıların acil tıp kliniğinde travma, sarı ve kırmızı alanda daha aktif hasta bakmak istediklerini fakat gece nöbeti tutmak istemedikleri saptandı.

Sonuç: Aile hekimliği asistanları uzmanlık eğitimi sürecindeki acil rotasyonların çekirdek eğitim müfredatı ile uyumlu olarak, eğitim-hizmet dengesi kurularak ve birinci basamak hizmetlerine yönelik olarak verilmesi; aile hekimliği uzmanlık öğrencilerinin eğitim ile hizmet kalitesini ve bilgisini arttıracaktır.

Anahtar Kelimeler: "Acil Tıp", "Aile Hekimliği", "Rotasyon Eğitimi", "Uzmanlık Eğitimi"

MOBILE LEFT VENTRICULAR APICAL THROMBUS; A RARE CASE REPORT

Mücahide Şamlı[1], Özgür Söğüt[1], Tarık Akdemir[1],

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Introduction

Left ventricular thrombus (LVT) has a high risk of embolization (1). Left ventricular thrombus(LVT) is serious complication of acute myocardial infarction and of non-ischemic cardiomyopathies (2).

Epidemiologic data suggest the incidence of LVT to be as high as 15% in patients with ST-segment elevation MI, up to 25% in patients experiencing an anterior MI and between 2–36% in patients with nonischemic cardiomyopathies (3,4).

Therapeutic recommendations like treatment with low molecular heparin and intravenous unfractionated heparin, thrombolysis or surgical thrombectomy have failed to reach a consensus.

Herein, we describe an uncommon case of a mobile left ventricular apical thrombus diagnosed by Echocardiogram in the emergency department.

Case

A 37-year old man patient has no history of disease, presented with dyspnea, pain, weakness of the left and right lower limb. On physical examination, the patient had pulse deficits, pallor and coldness in both lower extremities. Decreased left ventricular systolic function, dilated cardiomypathy and two mobile thrombus in apex of left ventricul was detected on Echocardiogram. Lower limb and Abdominal enhanced computed tomography showed in right femoral arterial thrombosis, both renal arterial thrombus. His blood pressure was 120/80 mmHg in both arms, a heart rate of 70 beats per min, respiratory rate of 21 breaths per min.

Laboratory studies found a normal hemoglobin level at 15 g/dL and thrombocyte of 246,000/mm3, an elevated serum C-reactive protein of 18 mg/L.

The patient was consulted with the Department of Cardiovascular Surgery and was hospitalized for thrombectomy surgery and medical treatment .

The patient received anticoagulation with low-molecular-weight heparin(oksapar 0,8 mL twice daily) Given the high probability of embolism associated with thrombus in the left ventricul, the indication for surgery was made. The anticoagulant therapy was initiated and surgical embolectomy was performed with restoration of blood flow, but the patient due to heart failure (EF:%10 in Cardiac Ultrasound/Echocardiography) is on the waiting list for heart transplant.

Discussion and Conclusion

LVT is a serious complication of acute myocardial infarction (MI) and also non-ischemic cardiomyopathies. It has been indicated that the incidence of LVT following acute MI has decreased, probably due to improvement in patient care as a result of better and earlier reperfusion techniques (5). Predictors of LVT include anterior MI, involvement of left ventricular apex (regardless of the coronary territory affected), LV akinesis or dyskinesis, reduced LV ejection fraction, severe diastolic dysfunction and large

infarct size. LVT is associated with increased risk of systemic embolism, stroke, cardiovascular events and death, and there is evidence that anticoagulant therapy for at least 3 months can reduce the risk of these events (6).

Finally, in case of mobile left ventricular thrombus with low ejection fraction and heart failure, as it was in our case, heart transplant might be a therapeutic option.

Keywords: Left ventricular thrombus; apical thrombus, heart transplant

References

1. Johannessen KA, Nordrehaug JE, von der Lippe G. Left ventricular thrombosis and cerebrovascular accident in acute myocardial infarction. Br Heart J. 1984 May;51(5):553–556.
2. Gottdiener JS, Gay JA, VanVoorhees L, et al. Frequency and embolic potential of left ventricular thrombus in dilated cardiomyopathy: assessment by 2-dimensional echocardiography. Am J Cardiol 1983;52:1281-5.
3. Gottdiener JS, Gay JA, VanVoorhees L, et al. Frequency and embolic potential of left ventricular thrombus in dilated cardiomyopathy: assessment by 2-dimensional echocardiography. Am J Cardiol 1983;52:1281-5.
4. Gottdiener JS, Massie B, Ammons SB, et al. Prevalence of left ventricular thrombus in dilated cardiomyopathy: the WATCH trial. J Am J Cardiol 2003;41:202.
5. Cruz Rodriguez JB, Okajima K, Greenberg BH. Management of left ventricular thrombus: a narrative review. Ann Transl Med. 2021;9(6):520.
6. McCarthy CP, Vaduganathan M, McCarthy KJ, et al. Left ventricular thrombus after acute myocardial infarction: screening, prevention, and treatment. JAMA Cardiolo 2018;3:642-9.

Rash and Fever After Rat Bite: A Pediatric Case from North of Syria

Bahadır Karaca[1] , Buğra Yıldırım[2] , Burak Çelik[3]

[1]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine

[2]Kilis State Hospital, Department of Pediatrics

[3]Kirsehir Training and Research Hospital, Department of Emergency Medicine

Introduction

Rickettsial diseases are a group of diseases caused by obligate intracellular gram-negative coccobacilli and transmitted to humans by arthropod vectors. The pathogenesis of rickettsial infections occurs through microvasculitis, which causes microthrombi in various organs. The classic triad of the disease is fever, headache, and rash. It is increasingly recognized that the diagnosis of rickettsial diseases is missed in cases. Since the delay in diagnosis and treatment leads to increased morbidity and mortality, the diagnosis should be made with clinical suspicion and treatment should be started. The gold standard in diagnosis is immunofluorescent antibody determination. However, the Weil-Felix test can be used in cases where other tests are not available. Here, a two-year-old patient diagnosed with rickettsial disease is presented.

Case Report

A two-year-old male patient was admitted to our Resulayn Hospital with complaints of fever lasting for 4 days, a vesicular rash that spreads to the trunk first and then to the extremities after fatigue. Intermittent fever lasting for three days was observed and fever generally ranged between 38.5 and 39.5. Pink-red color, approximately 0.5 cm in diameter, scattered maculopapular, well-circumscribed, non-pruritic, non-confluent rashes started on the trunk and extremities at the same time, followed by similar rashes, predominantly on the palms, mouth and extremities. In the following days, nausea and confusion were added to the complaints of weakness, fatigue and loss of appetite. The patient who applied to the hospital received ceftriaxone, ampicillin subactam, vancomycin for 3 days. Afterwards, the patient's fever complaints continued and CRP increased, considering possible rickettsiosis, and the treatment of the patient with vancomycin, meropenem, ciprofloxacin, clindamycin. Revised as doxycycline and azithromycin. On physical examination, the patient had condensed maculopapular and vesicular eruptions on both knees, fingers, extremities and trunk. On examination, there was no hepatomegaly, no splenomegaly. There was lymphadenopathy in the axillary and inginal region. In laboratory examinations, leukocyte 7800/µL, hemoglobin 7.8 g/dL, hematocrit 34.2%, platelet: 742.000/µL, 53.5% neutrophils, 32.5% lymphocytes, 13.2% monocytes were found in its formula. Erythrocyte sedimentation rate in the first hour 110 mm/hr, CRP 187.38 mg/L, lactate:0.88 mmol/lt, Fibrinogen:8.01 mg Aptt:23.1 sec, Pt:13.4 sec, INR.: It was 1.13. There was no electrolyte imbalance except the serum sodium value was 136 mmol/L. Liver function tests had doubled. Coagulation tests were within normal limits. Empirical doxycycline treatment (2 mg/kg/day) was started with a preliminary diagnosis of rickettsiosis, considering the history of rickettsial infection in a region where it is common in our country, the contact with animals, and the characteristics of the rash.

Discussion

Although a wide list of differential diagnoses is encountered in patients presenting with fever and rash, the shape and location of the rash helps to reduce the possibilities. In the presence of maculopapular rash (centrifugal rash) starting from the body and spreading to the extremities, palms and soles, Rickettsiaprowazakii caused by lice and Rickettsia typhi caused by fleas should be considered (1). Following the complaint of fever in our patient, rashes started on the trunk and extremities and spread to the palms. In Rocky Mountain Spotted Fever, the

rash starts from the wrists and ankles and spreads to the trunk and extremities. In Stevens-Johnson syndrome, there are bullous lesions involving the mucous membranes and Nikolsky sign may be positive. In the presence of salmon-colored macules or copper-colored papules on the palms and soles of the feet together with fever, secondary syphilis should be considered (2). The disease picture caused by R. typhi is called endemic typhus, it causes a milder clinical picture than the epidemic typhus caused by R. prowazekii. It is known that R.typhi is transmitted by mouse, cat and dog rodents (3, 4). Our patient also has a history of dog contact and being in a rural area. The effect of the warm climate is great in the frequent occurrence of the disease, which is called endemic typhus, especially in the Mediterranean basin (3, 4). Due to the lack of specific findings of the disease, its true incidence is not clear (5). In the study of Gikas et al. (6), it was stated that the majority of the applications were between May and October. The case applied to our clinic in August. The incubation period is between 1-2 weeks. The main signs and symptoms seen throughout the clinical course of endemic typhus are fever, rash, myalgia, nausea, headache, diarrhea, hepatomegaly, splenomegaly, and loss of appetite. In our case, fatigue, loss of appetite and nausea were added to the complaints of fever and rash in the period following the animal contact. In three separate case series published to date, it has been reported that endemic typhus is the most common diagnosis among rickettsiosis cases followed for fever of unknown origin (7-9). Contrary to what is seen in adults, the triad of fever, rash, and headache is less common in children (4). Although rash is an important finding in endemic typhus, its frequency has been reported to vary between 20% and 80% in different studies (5, 8-10). The rashes are pale pink-red, macules or maculopapules. The rash does not tend to coalesce. It occurs on the trunk, extremities, palms and soles. The patient who applied to our clinic also had rashes that were pink-red, maculo-papular, well-circumscribed, non-pruritic, and did not tend to coalesce. It is known that serious neurological findings such as papilledema, facial nerve palsy, and hemiparesis can be observed in patients (11). Weil-Felix agglutination test has been used for diagnosis for many years. This test is based on the agglutination of the OX-19 and OX-2 strains of Proteus vulgaris and the OX-K strain of Proteus mirabilis. In our patient, Proteus OX-2 gave a positive reaction at 1/200 dilution and Proteus OX-19 gave a positive reaction at 1/100 dilution in the Weil-Felix agglutination test. The Weil-Felix test is less specific than the indirect immunofluorescent antibody (IFA) and enzyme immune assay (EIA). Serological tests are helpful in diagnosis. IFA is the gold standard for the diagnosis of rickettsial infections (12). It is appropriate to start empirical treatment while the results of laboratory tests are awaited. The treatment option for endemic typhus is doxycycline (2 mg/kg/day BiD-PO or IV; max: 300 mg/dose). Treatment should last a minimum of five days or continue until the patient has had at least two to four days without fever. Most of the patients do not need intensive care. Complications such as renal failure, myocarditis, meningoencephalitis, pulmonary insufficiency may develop. In most cases, acute complications do not develop.Between 1925 and 1970, 20,483 cases of typhus were seen in Turkey (13). Case reports were discontinued for a long time after the 1940s, but cases of spotted fever started to be reported from hospitals in Istanbul in the 1990s (14-16). Case series reported in Turkey; In 2004, Kuloğlu et al. (17) reported that 7 patients from Edirne, 3 patients from Kırklareli and 1 patient from Tekirdağ were detected in July-August. Similar to our patient, there was a maculopapular rash that appeared on average 3-8 days after fever. The last case of rickettsiosis was reported in 2010 in a 12-year-old male patient whom Yaşa et al. (18) examined for persistent fever, and diagnosed with the Weil Felix test following viral and rheumatological examinations. Serological scans performed at different times in our country suggest that rickettsiosis/spotted fever cases are not limited to Istanbul and the Thrace Region (19, 20).

Conclusion

The patients presenting with non-specific symptoms and the absence of rash in all patients complicate the diagnosis. Diagnosis before the serological tests are concluded is possible with the clinician's knowledge and clinical suspicion about the geographical distribution of the disease. As a matter of fact, our patient had a history of being in the Thrace region of Turkey, where endemic typhus is common, in the time period before the onset of his complaints. Endemic typhus should be included in the differential diagnosis list in all patients presenting with unexplained fever for three to five days.

References

1. Zipkin R, Moustafa M, Rosenberg S. An 11-year-old boy with a fever and non-pruritic rash. Diagnosis: murine typhus. Pediatr Ann 2009; 38: 610-2. [CrossRef]

2. Aber C, Alvarez Connelly E, Schachner LA. Fever and rash in a child: when to worry? Pediatr Ann 2007; 36: 30-8.

3. Chaniotis B, Psaroulaki A, Chaliotis G, Gozalo Garcia G, Gozadinos T, Tselentis Y. Traansmission cycle of murine typhus in Greece. Ann Trop Med Parasitol 1994; 88: 645-7.

4. Koliou M, Psaroulaki A, Georgiou C, Ioannou I, Tselentis Y, Gikas A. Murine typhus in Cyprus: 21 pediatric cases. Eur J Clin Microbiol Infect Dis 2007; 26: 491-3. [CrossRef]

5. Gikas A, Doukakis S, Pediaditis J, Kastanakis S, Psaroulaki A, Tselentis Y. Murine typhus in Greece: epidemiological, clinical, and therapeutic data from 83 cases. Trans R Soc Trop Med Hyg 2002; 96: 250-3. [CrossRef]

6. Gikas A, Kokkini S, Tsioutis C, et al. Murine typhus in children: clinical and laboratory features from 41 cases in Crete, Greece. Eur Soc Cli Mic Infect Dis 2009; 15: 211-2. [CrossRef]

7. Dumler JS, Taylor JP, Walker DH. Clinical and laboratory features of murine Typhus in South Texas, 1980 through 1987. JAMA 1991; 266: 1365-70. [CrossRef]

8. Bernabeu-Wittel M, Pachon J, Alarcon A, et al. Murine typhus as a common cause of fever of intermediate duration: a 17 year study in the South of Spain. Arch Intern Med 1999; 159: 872-6. [CrossRef]

9. Fergie JE, Purcell K, Wanat D. Murine typhus in South Texas children. Pediatr Infect Dis J 2000;19: 535-8. [CrossRef]

10. Silpapojakul K, Chayakul P, Krisanapan S, Silpapojakul K. Murine typhus in Thailand: clinical features, diagnosis and tre-atment. Q J Med 1993; 86: 43-7.

11. Vallejo-Maroto I, García-Morillo S, Wittel MB, et al. Aseptic meningitis as a delayed neurologic complication of murine typhus. Clin Microbiol Infect 2002; 8: 826-7. [CrossRef]

12. John C, Christenson E, Korgenski K. Laboratory Diagnosis and Therapy Of Infectious Bacteria, Fungi, Parasites, and Rickettsiae.

In: Long S, Pickering L.K, Prober C, editors. 3rd ed. Principles and Practice of Pediatric Infectious Diseases, Churchill Livingstone: Elsevier; 2008. p.1341-52.

13. Eren N, Hamzaoğlu O. Türkiye'de Bulaşıcı Hastalıklar (Communicable Diseases in Turkey) 1925-1993. TTB Yayını, Şubat 1996, Ankara. (ISNB 975-95666-4-8)

14. Mert A, Tabak F, Dumankar A, Eroğlu C, Öztürk R, Aktuğlu Y. Dört Marsilya humması olgusu. Klimik Derg 1997; 10: 146-8.

15. Erten N, Karan MA, Taşçıoğlu C, Yurci A, Dilmener M, Kaysı A. Rickettsia conorii infeksiyonu: Olgu sunusu. Klimik Derg 2000; 13: 36-8.

16. Özgüneş N, Ergen P, Yazıcı S, Aksoy Y, Bekler G, Sargın F. Yirmi riketsiyoz vakası. Klimik Derg 2001; 14: 91-2.

17. Kuloglu F, Rolain JM, Fournier PE, Akata F, Tugrul M, Raoult D. First isolation of Rickettsia conorii from humans in the Trakya (European) region of Turkey. Eur J Clin Microbiol Infect Dis 2004; 23: 609-14. [CrossRef]

18. Yasa O, Ergüven M, Karaca Atakan S, Emmungil Ş. Ateş ve döküntü birlikteliğinin ender nedeni: bir riketsiyöz vakası. Çocuk Derg 2010; 10: 90-3.

19. Payzın S, Akan E. Rickettsia prowazekii, R. mooseri, R. conorii, R. Burnetti ve neoriketsiyalara karşı orta ve doğu Anadolu halkının kanlarında artık aglütininler. Türk Hij Tec Biyol Derg 1964; 24: 44-62.

20. Vural T, Ergin C, Sayin F. Investigation of Rickettsia conorii antibodies in the Antalya area. Infection 1998; 26: 170-2. [CrossRef]

Peritonsillar Abscess and Uvula Edema

İbrahim Halil Toksul

Abstract: Peritonsillar abscess is the most common deep infection of the head and neck that occurs in adults. It is typically formed by a combination of aerobic and anaerobic bacteria(1). Fever, sore throat, difficulty in swallowing and trismus are the most common complaints. Needle aspiration is still the gold standard method in the diagnosis and treatment of peritonsillar abscess(2). Ultrasonography and Computerized Tomography(CT) are helpful in making the diagnosis(3). Appropriate antibiotic therapy should be initiated after puncture and aspiration. In advanced cases, incision and drainage or emergency tonsillectomy may be required. In addition, an accompanying and very rare finding, uvular redness and edema, can be confused with anaphylaxis at first. In this study, we presented to the Emergency Department of Başakşehir Çam and Sakura City Hospital in 2022 with the complaints of difficulty in swallowing and shortness of breath after the antibiotics used after the Upper Respiratory Tract Infection. We will try to present two cases diagnosed as abscess.

Case -1

39 years old male patient. He applied to the emergency department with the complaints of sore throat, swelling in the throat, headache, pain in the right ear and face, and shortness of breath. He has complaints for 4 days. There are multiple hospital admissions with the same complaints. Amoxicillin-clavulant 1 gr, 2x1 cefaclor 1gr, 2x1 paracetamol and antiseptic mouthwash was started as a treatment. The patient stated that his complaints did not decrease, but increased, especially after taking the drugs. Arrival vital signs; fever: 36.2 SS: 18 Pulse: 75 h: 97 In the first examination, there is uvula edema in the oropharynx examination. Other system examinations are normal. When the patient's complaints increased after the drug and uvula edema was detected on physical examination, drug-induced anaphylaxis was considered and he was taken to the observation area. The vein was opened and close hemodynamic monitoring was achieved. The patient was administered 1 mg adrenaline i.m. and 1-2 mg/kg methylprednisolone and antihistamine.

He stated that the patient's complaints decreased in the first hour in the follow-ups, but then it started again. During the follow-up of the patient, at about the 4th hour, the patient was re-evaluated because the boot, which coincided with the proximal of the right scm muscle, expressed pain, increased fever and had a toxic general appearance. A physical examination was done from the beginning.

On reexamination, the oropharynx and uvula were hyperemic and edematous . Especially the right tonsil anterior plica and soft palate were edematous and the plica extended to the midline, both tonsils could not be seen in direct examination. He had right cervical lymphadenopathy. Contrasted neck CT was performed considering peritonsillar abscess.

CT report; Nasopharyngeal lymphoid tissue is observed as hypertrophic. Abscess? 1x1.5 cm diameter hypodense nodular structure is observed in the palatine tonsil on the right. At this level, the air column is narrowed. Clinical correlation-follow-up examination is recommended. In the bilateral submandibular region, lenfadenomegali(LAM) and lymph nodes with a short axis reaching 1 cm are observed along the jugular chain. The patient was consulted to the ear, nose and throat specialist with the diagnosis of peritonsillar abscess. The patient's abscess drained spontaneously while he was in the emergency room. The patient had a foul-smelling discharge in the form of vomiting. He was admitted to the ear, nose and throat clinic for follow-up and treatment.

Picture-1 Contrast Neck CT

Case-2

A 62-year-old male patient applies to the emergency department with the complaint of shortness of breath. He stated that he had shortness of breath after taking the amoxicillin-clavunate 1000 mg tablet prescribed to him in another emergency room he went to for sore throat. He has a history of Coronary Artery Disease and DM. Vital signs; TA; 184/89 Pulse;96 Fever:36.1 HH:19 Sat:97 Blood glucose checked;340

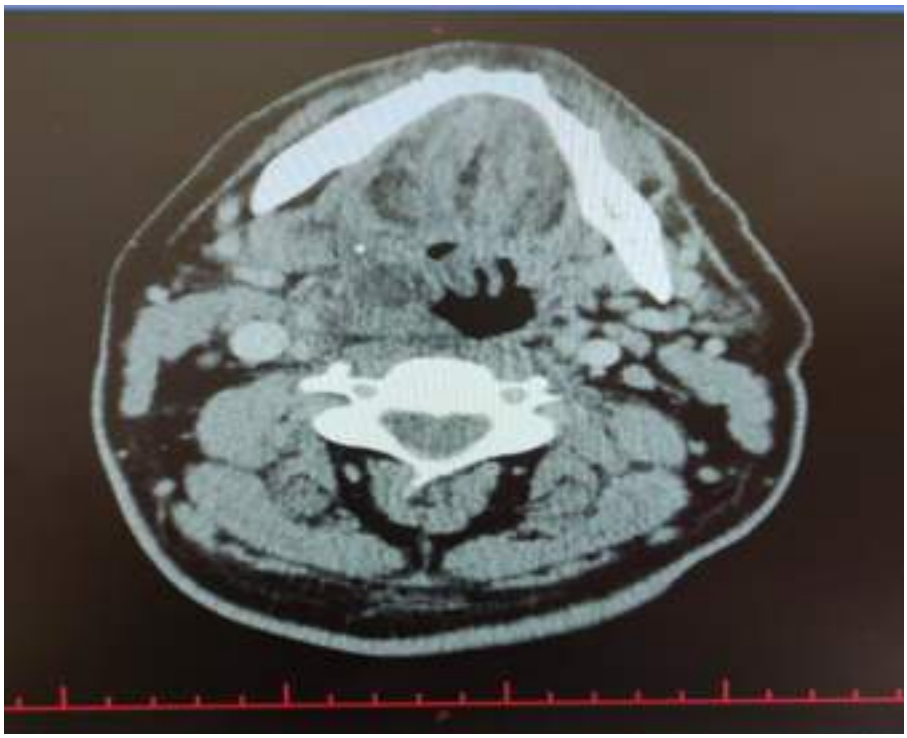
In the physical examination, edema was detected in the uvula. Lung sounds decreased with listening. No ral and rhonchi were detected. Other system examinations were normal. His ECG was normal, sinus rhythm, no acute pathological findings. When the patient's complaints increased after medication and uvula edema was detected on physical examination, drug-induced anaphylaxis was considered and he was taken to the observation area. Vascular access was opened and close hemodynamic monitoring was achieved. The patient was administered 1 mg adrenaline i.m. and 1 mg/kg methylprednisolone and antihistamine. The patient had high blood sugar and appeared dehydrated, and i.v. fluid resuscitation was started at 20 ml/kg. Metabolic acidosis was not detected in the simultaneous blood gas analysis. 261 WBC:15.6 blood glucose:445

In the 4th hour of the patient's follow-up, his complaints began to decrease, and difficulty in swallowing began to be expressed. Shortness of breath did not regress. The patient, whose general condition was also poor, was transferred from the yellow area to the red area in the emergency room.

The patient was re-evaluated by the Emergency Medicine Specialist in the red area. And no pathological finding other than uvula edema for anaphylaxis was found (skin finding, hypotension, pulmonary aural finding, etc.). and uvula were found to be edematous. Contrasted neck CT was performed to the patient with the preliminary diagnosis of deep neck infection.

CT report; There is a collection of approximately 20x19 mm in the right peritonsillar area. (Peritonsillar abscess) Multiple reactive lymph nodes are present in both cervical chains. On the right side of the neck, there are slightly dirty density increases in soft hails.

The patient was hospitalized with the diagnosis of peritonsillar abscess, and ear, nose and throat specialist was consulted for follow-up and treatment. The patient was interned by the ear, nose and throat specialist.



Picture-2 Contrast Neck CT

Discussion;

Peritonsillar abscess is the collection of purulent material between the tonsillar capsule, superior constrictor, and palatopharyngeus muscles(4). Risk factors include periodontal disease, smoking, chronic tonsillitis, multiple antibiotic trials, and previous peritonsillar abscess. develops in adults. Peritonsillar abscesses typically develop as a result of polymicrobial infections(1).

Patients with peritonsillar abscess (adolescents and adults) appear ill and present with sore throat (99%), fever (54%), malaise, odynophagia, and/or earache.

Physical signs include lower and middle displacement of infected tonsils.) (46%), contralateral deviation of the swollen uvula (43%), tender cervical lymphadenopathy (41%), trismus (32%), palate edema(4).

The differential diagnosis of a peritonsillar abscess includes peritonsillar cellulitis, mononucleosis, lymphoma, herpes simplex tonsillitis, retropharyngeal abscess, neoplasm, and internal carotid artery aneurysm.

There is scant literature regarding uvular hydrops, prognosis and treatment and almost none regarding uvular hydrops in association with an infectious mass effect in the posterior oropharynx(5).Neither uvular hydrops nor PTA commonly obstruct the airway. Both conditions are usually managed as outpatients. However, both have been independently implicated in airway compromise. When present concurrently, there is no data on which to base prognosis. For this reason, the patient was admitted for observation of airway status. This patients had no complications or airway compromise. More experience is required to establish the occurrence of airway compromise with coexistent hydrops and PTA.

References

1-Brook I, Frazier EH, Thompson DH. Aerobic and anaerobic microbiology of peritonsillar abscess. Laryngoscope101:289-92,1991.

2-Steyer TE. Peritonsillar abscess: diagnosis and treatment. Am Fam Physician 2002 Jan 1;65(1):93-6

3-Strong EB, Woodward PJ, Johnson LP Intraoral ultrasound evaluation of peritonsillar abscess. Laryngoscope 1995;105(8 pt 1):779-82.

4-Galioto NJ. Peritonsillar abscess. *Am Fam Physician.* 2008;77(2):199-202.

5-McNamara R, Koobatian T. Simultaneous uvulitis and epiglottitis in adults. *Am J Emerg Med.* 1997;15:161.

Ataxi Related To Carbamazepine Intoxication

Yağmur Gökhan Semerci[1], Talha Özsu[1], Ahmed Edizer[1], Bilal Yeniyurt[1], Burçe Serra Koçkan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Carbamazepine intoxication may present to the emergency department with acute and chronic intoxications. Neurological findings are more prominent in carbamazepine intoxication. Carbamazepine (CBZ) inhibits sodium channels and can cause cardiac arrhythmias in its toxicity. It also affects muscarinic and nicotinic acetylcholine receptors, N-methyl-D-aspartate and central nervous system adenosine receptors. In addition to its antiepileptic and trigeminal neuralgia analgesic effects, CBZ also has anticholinergic,antiarrhythmic, antidepressant, sedative and neuromuscular blocking properties. Treatment Options for CBZ acute poisoning or overdose initially include symptomatic therapy including gastric lavage, cathartics, and diuretics. In addition, different extracorporeal therapy (ECTY)interventions such as charcoal hemoperfusion (HP), hemodialysis (HD) and plasma exchange have recently been reported to be effective. In this case, we talked about the emergency room management of a patient with carbamazepine intoxication.

Case: A 48-year-old male patient was admitted to our emergency department with complaints of confusion, balance disorder, dizziness, nausea, and vomiting. It was learned that he had epilepsy in his history and used Tegretol 200 mg.No abnormality was found in his neurological examination, except for ataxia. The patient was monitored,vascular access was established, and blood samples were sent for laboratory tests (hemogram,biochemistry, arterial blood gas, serum carbamazepine level). Brain CT was performed for the differential diagnosis of blurred consciousness (image 1). Brain MRI and diffusion MRI were performed on the patient who was consulted with neurology (image 2). No pathology was detected in the brain CT and MRI of the patient who was evaluated by neurology. In the final laboratory tests of the patient, carbamazepine level was found to be high (>29 µg/ml) (therapeutic level 4-10 ug/ml), other laboratory parameters were normal. In the follow-up of the patient who was hydrated and diuresis in the emergency department, his complaints regressed, and the carbamazepine level, which was measured in the control, was found to be15 µg/ml. The patient, who was clinically and hemodynamically stable, was discharged without a patient control plan and recommendations as a result of neurology control.

Conclusions: Many systemic and neurological findings are prominent in carbamazepine poisoning.Carbamazepine intoxication should be considered and carbamazepine level should be sent to the patients who were found to have used carbamazepine before, especially in patients who present with neurological findings and no other condition that could explain their clinical condition.

Anahtar Kelimeler : ataxia , carbamazepine , intoxication

Demographics and Mortality of COVID-19 ICU Patients: The Experience of a Turkish Tertiary Care City Hospital

Banu Arslan[1], Mehmet Necmeddin Sutasir[1], Yeter Cengiz[1], Amine Eslem Basibuyuk[1], Ramazan Guven[1]

[1]Basaksehir Cam and Sakura City Hospital

Abstract

Aim: This study aims to evaluate the demographics and clinical outcomes of the Covid-19 patients admitted to the ICU during the pandemic period. We studied the effect of age, gender, respiratory support type, RT-PCR test positivity and types of treatment on ICU mortality.

Method: Eighty-nine patients admitted to the Covid-19 ICU between January 1st, 2022, and March 2nd, 2022, were included in the study. Patients with missing study data were excluded from the study. Statistical data analysis was performed with SPSS Statistics software version 24.0. Categorical variables were expressed as percentages, and numerical values were expressed as mean, median, standard deviation, minimum and maximum.

Result: During the study period, eighty-nine patients were admitted to the Covid-19 ICU. While forty-eight patients were treated and discharged, forty-one patients died. Of the deceased, 58% (n:24) were male and 41% (n: 17) were female. PCR test positivity was detected in fifty-seven patients. Of fifty-seven patients, twenty-eight (%49) died. Six patients received IVIG, twenty-two patients received anti-cytokine therapy, and two patients received plasmapheresis. The mortality rate for these patients is as follows; 50% (n:3), 59% (n:13), and 50% (n:1). Twenty-eight patients required invasive mechanical ventilation during the ICU stay. Mortality was the highest among these patients at 85% (n:24).

Conclusion: Our study suggests that the mortality rate of male Covid-19 ICU patients was higher than females. Comparing to patients who received a high-flow oxygen therapy, the mortality rate in patients who received invasive mechanical ventilation was significantly higher, accounting 85%. Although PCR test positivity was detected in fifty-seven of eighty-nine patients, we believe that it didn't predict ICU mortality by itself.

Keywords: Covid-19, Intensive Care Unit, Mortality Rate, Mechanical Ventilation, High Flow, PCR.

INTRODUCTION

Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) which emerged in Wuhan, China in December 2019, has spread across the world and caused the death of hundreds of thousands of people. SARS-CoV-2 has been linked with a broad spectrum of symptoms and clinical outcomes. Even though Covid-19 patients can be asymptomatic or have only mild symptoms, a severe disease requiring mechanical ventilation has been observed in thousands of patients worldwide. A large group of people have been affected by pneumonia caused by this novel virus and continue to be affected. From the beginning of the pandemic Ministry of Health, Turkey holds the management of the pandemic in line with guidelines. In addition to the recommendations in these guidelines, our patients were treated in the light of the latest literature [1]. According to the data from World Health Organization (WHO), during our study period (January 1st, 2022 and March 2nd, 2022) 532,689 patients died from Covid-19 disease.

Patients who are manifesting severe Covid-19 symptoms should be admitted to the hospital and monitored closely. Despite severe hypoxemia that is resistant to oxygen therapy, some Covid-19 patients don't manifest severe dyspnea symptoms. Additionally, they can be conscious and well cooperated. Moreover, it seems they tolerate the hypoxia well. From this perspective, Covid-19 disease has been distinguished from other hypoxemic

manifestations (2). However, clinicians should exercise great caution when treating those patients, since clinical deterioration can happen at any time.

The risk factors for developing severe Covid-19 disease are presented in Table 1 [3]. Patients with acute hypoxemic respiratory failure, shock symptoms, acute organ dysfunction, high oxygen requirement (at least 6- 8 l/min oxygen to reach a peripheral oxygen saturation ≥ 90–92%), and patients at high risk for clinical deterioration should be admitted to the intensive care unit (ICU) as soon as possible [4]. Unfortunately, the Covid-19 pandemic has shown us that intensive care unit (ICU) admission criteria can vary based on culture, medical practice, and health resources across the world.

Table 1: The risk factors for developing severe Covid-19 disease.

Demographics	**Clinical Presentation**	**Lab Parameters**
Age >55	Respiratory Rate >24/min	D-dimer > 1000 ng/ml
Chronic respiratory disease	Heart Rate >125/ min	Increased PT
Chronic Renal Failure	Spo2 < 93%	2x increased CPK
HbA1C >7%	PaO2/FiO2 <300mmHg	CRP >100 mg/L
Hypertension		LDH > 245 U/L
Cardiovascular Disease		Increased Troponin Levels
Obesity (BMI >30 kg/m^2)		Absolute lymphocyte count < 0.8 cells/µL
Immuncompromisation		Neutrophil/ Lymphocyte >3
Cancer		Ferritin>300mcg/L
HIV + with CD4 <200)		Increased AST

Treatment

According to the National Institutes of Health (NIH), therapeutic management of hospitalized adults with Covid-19 involves remdesivir, dexamethasone, dexamethasone plus remdesivir, baricitinib, tocilizumab, dexamethasone plus baricitinib and dexamethasone plus tocilizumab [5]. Treatment options can vary based on the severity of the disease. For hospitalized Covid-19 patients who don't require oxygen supplementation, the panel recommends against the use of any systemic corticosteroid therapy [5]. There are also several treatment options aiming the regulation of excessive immune response caused by the Covid-19 disease. Among them, anti-cytokine, stem cell administration, convalescent plasma transfusion, and hemadsorption filters seem promising, however, they are still in the research phase and there are no specific recommendations in the current guidelines for their use.

Anakinra, a recombinant form of the IL-1 receptor antagonist, is approved for the treatment of rheumatoid arthritis and autoinflammatory disorders. It was previously used off-labeled for the treatment of conditions characterized by excess cytokine production [6]. And it showed encouraging results in treating macrophage activation syndrome and septic shock [7]. According to the latest Covid-19 guideline published by the Ministry of Health/ Turkey, IVIG treatment can be administered to eligible patients at a 2 g/kg/day dose for two days (patients with IgA deficiency are excluded). Plasmapheresis can suppress the cytokine storm and the damage caused by the inflammatory response by clearing inflammatory factors from the blood. Even though there are studies in the literature indicating improved clinical outcomes in severe Covid-19 patients, there is no recommendation in guidelines [8].

In this retrospective study, we aimed to study the effect of demographics, PCR positivity, treatment options and advanced respiratory therapy types of the Covid-19 ICU patients on mortality.

Method:

This study was conducted with adult Covid-19 patients who were admitted to our 16-bed capacity tertiary Covid-19 ICU at Basaksehir Cam and Sakura City Hospital between January 1st, 2022, and March 2nd, 2022. Study data involved patients' age, gender, nasal/pharyngeal swab RT-PCR test results, invasive mechanical ventilation, high-flow oxygen therapy, treatments including IVIG, anti-cytokines, and plasmapheresis, and mortality rates. Patients were employed in the study after getting written informed consent from either patients or their next-of-kin. Demographics, clinical data, laboratory findings, chest CT images and medical therapies were retrospectively obtained via electronic medical records. Admission to the ICU criteria and the treatments were applied in the light of the "Surviving Sepsis Campaign (SSC)" [3]. Important clinical decisions were made with the consensus of a large group of doctors including attending physicians and clinical academics.

Results

During the study period, eighty-nine patients were admitted to our Covid-19 ICU with the clinical judgment of the Covid-19 disease. Fifty-seven patients tested positive for a subsequent RT-PCR test, accounting for 64% of the clinically diagnosed.

Table 2; Demographics, clinical course, and treatments. Data are expressed as absolute numbers and percentages for categorical variables

	Number (n)	Percentage (%)
Gender		
Male	50	56,2
Female	39	43,8
Hospital Outcome		
Dead	41	46,1
Discharged	48	53,9
RT-PCR		
Positive	57	64,0
Negative	32	36,0
Mechanical Ventilation		
Yes	28	31,5
No	61	68,5
High-flow Oxygen		
Yes	31	34,8
No	58	65,2
Plasmapheresis		
Yes	2	2,24
No	87	97,7
Anti-Cytokine		
Yes	22	24,7
No	67	76,3
IVIG		
Yes	6	6,8
No	83	93,2

Male patients were accounting 56.2% of the study subjects. The median age of the female patients was 73.92 years and male patients was 72.92 years with an overall median age was 75.0 years. Forty-eight (53.9%) patients were discharged, and forty-one (46.1%) patients died during the ICU stay with an overall mortality rate was 46.1%. The median age of deceased patients was 76.5 years. Our results suggested that age was correlated with ICU mortality. In addition, mortality was higher in male patients, accounting for 58.53%.

We applied invasive mechanical ventilation to the twenty-eight patient and high-flow oxygen therapy to thirty-one patients for respiratory support. We observed an extremely high mortality rate in invasive ventilation patients,

accounting for 85.8%. On the other hand, 45.1% of the patients who received non-invasive high-flow oxygen therapy survived.

Anti-cytokine treatment was administered to twenty-two patients and thirteen of them died. Two patients received plasmapheresis therapy. The effect of plasmapheresis therapy on survival was not statistically significant. A total of 6 patients were given IVIG treatment and it did not affect mortality.

Discussion

Our results indicated that the majority of Covid-19 ICU patients in this study were male, and the mortality rate of male patients was higher than female patients. In 2021, Rodríguez et al. reported similar results, however, the mortality rate of male patients was higher than the male patients in our study, respectively, 78.9% and 58.53%. At the same study, the median age of deceased patients was calculated as 69 years, whereas our study suggested 76.5 years [9].

In our study, 45,1% of the patients who received high-flow oxygen therapy and 14,2% of the patients who invasive mechanical ventilation was discharged from the Covid-19 ICU. On the other hand, Rodríguez et al. demonstrated better survival rates; 78,6% for patients who received high-flow oxygen therapy and 60,9% for invasive mechanical ventilation intervention. We believe this difference caused by two factors. First, the median age of our patients was significantly higher, respectively, 69 years and 76.5 years. It is generally accepted that advanced age has an important impact on patient survival. Second, most of the patients who received invasive mechanical ventilation were already intubated in the emergency department without any chance of non-invasive respiratory support. The effect of late intubation in Covid-19 patients on mortality is matter of debate. Even though some research indicated that late intubation is associated with higher mortality rate than early intubation, we believe that a high-flow oxygen therapy should be tried first, in order to mitigate complications caused by mechanical ventilation [10-12].

We administered IVIG therapy to six patients and 50% of them were discharged from the Covid-19 ICU. The effect of IVIG therapy on mortality were studied in the literature. Even though some encouraging results were reported, there is no clear evidence indicating improved patient outcomes. Moreover, Jian Wu et al. reported that IVIG treatment had no effect on mortality [13].

The present study has some limitations. It was designed as a single-center, observational study. Study data including demographics, management/treatment algorithms and clinical course was gathered retrospectively which may have introduced bias.

Conclusion

In conclusion, the present study showed that the ICU mortality rate of 46.1% overall and 85.8% for patients who received mechanical ventilation which was high in comparison to the literature.

Despite increased experience, evidence-based therapies, and new encouraging treatments, this high mortality rates indicates that the nature and the course of the Covid-19 disease hasn't been fully understood and more research are needed in this field.

References

1. T.C. Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü. Bilim kurulu çalışması, covıd19 (sars-cOV-2 enfeksiyonu) rehberi, 14 Nisan 2020. Available from: URL: https:// www.fip.org/files/content/priorityareas/coronavirus/moresources/Turkey_SARSCoV2InfectionGuide.pdf

2. Du Y, Tu L, Zhu P, Mu M, Wang R, Yang P, et al. ClinicalFeatures of 85 FatalCases of COVID-19 fromWuhan. A RetrospectiveObservationalStudy. Am J RespirCritCareMed 2020;201:1372-9.

3. Alhazzani W, Møller MH, Arabi YM, et al. SurvivingSepsisCampaign: Guidelines on theManagement of CriticallyIllAdultswithCoronavirusDisease 2019 (COVID-19). CritCareMed 2020; [CrossRef]

4. Hajjar, L.A., Costa, I.B.S., Rizk, S.I. *et al.* Intensive care management of patients with COVID-19: a practical approach. *Ann. Intensive Care* 11, 36 (2021). https://doi.org/10.1186/s13613-021-00820-w

5. COVID-19 Treatment Guidelines. Therapeutic Management of Hospitalized Adults With COVID-19 Based on Disease Severity. Downloaded from https://www.covid19treatmentguidelines.nih.gov/ on 9/26/2022

6. Cavalli G, Dinarello CA. Anakinra therapy for non-cancer inflammatory diseases. Front Pharmacol. 2018;9:1157. doi: 10.3389/fphar.2018.01157.

7. Shakoory B, Carcillo JA, Chatham WW, et al. (2016). Interleukin-1 receptorblockade is associated with reducedmortality in sepsis patients with features of the macrophage activation syndrome: Re-analysis of a prior Phase III trial. Critical CareMed, 44(2); 275

8. Xu K, Cai H, Shen Y, et al. (2020). Management of coronavirus disease-19 (COVID-19): the Zhejiang experience. Journal of Zhejiang University (Medical Science), 49(1); 0-0.

9. Rodríguez, A., Ruiz-Botella, M., Martín-Loeches, I. *et al.* Deploying unsupervised clustering analysis to derive clinical phenotypes and risk factors associated with mortality risk in 2022 critically ill patients with COVID-19 in Spain. *CritCare* 25, 63 (2021). https://doi.org/10.1186/s13054-021-03487-8

10. Bavishi AA, Mylvaganam RJ, Agarwal R, Avery RJ, Cuttica MJ. Timing of Intubation in Coronavirus Disease 2019: A Study of Ventilator Mechanics, Imaging, Findings, and Outcomes. Crit Care Explor. 2021 May 12;3(5):e0415. doi: 10.1097/CCE.0000000000000415. PMID: 34079946; PMCID: PMC8162516.

11. Zhang Q, Shen J, Chen L, et al. Timing of invasive mechanic ventilation in critically ill patients with coronavirus disease 2019. J Trauma Acute Care Surg. 2020; 89:1092–1098

12. Agarwal A, Basmaji J, Muttalib F, et al.. High-flow nasal cannula for acute hypoxemic respiratory failure in patients with COVID-19: Systematic reviews of effectiveness and its risks of aerosolization, dispersion, and infection transmission. *Can J Anaesth*. 2020; 67:1217–1248

13. Clinical Characteristics of Imported Cases of Coronavirus Disease 2019 (COVID-19) in Jiangsu Province: A Multicenter Descriptive Study Jian Wu,1,2,a Jun Liu,3,a Xinguo Zhao,4,a Chengyuan Liu,5,a Wei Wang,2 Dawei Wang,6 Wei Xu,7 Chunyu Zhang,8 Jiong Yu,1 Bin Jiang,9 Hongcui Cao,1,10, and Lanjuan Li1

Air Embolism: a rare complication of IV contrast-enhanced CT

Özge Sena Aslan

SUMMARY

Vascular air embolism is a rare complication of iatrogenic causes that may progress asymptomatically or result in mortality.It can occur as a result of events such as surgical interventions, invasive procedures on the vascular system, contrast imaging, trauma.Positional changes, high-flow oxygen therapy, volume replacement, inotropes, hyperbaric oxygen therapy and, if necessary, mechanical ventilation can be used with close observation in the treatment.

In our case, we reported the air images that developed in the right atrium and right subclavian vein after the contrast-enhanced tomography imaging of a 65-year-old male patient who came to the emergency room with chest pain and his process.

INTRODUCTION

Vascular air embolism is known as the entry of air into the venous or arterial system through direct transmission and pressure difference.Although it is not common, it may occur as a result of complications such as surgical interventions, contrast-enhanced imaging, vascular interventions like peripheral or central catheter/vascular access, trauma, and barotrauma.The severity of air embolism can vary depending on the rate of passage of air into the vascular system, its amount and location in the vascular system.It can generally be asymptomatic, but may present with symptoms such as dizziness, dyspnea, substernal chest pain, increased JVP (Jugular venous pressure).Common findings are sudden onset of hypotension, tachycardia, tachypnea, hypoxia, and deterioration in mental status.Air embolism together with close vital monitoring, It can be managed by methods such as positioning the patient (left lateral decubitus position, trandelenburg position), high flow oxygen (100% FİO2), volume replacement, inotropes, hyperbaric oxygenation, and interventional aspiration of air from the vein.

In this case, we incidentally detected a large amount of air entering into the circulatory system while contrast was given after thoracoabdominal CT angiography in our patient.Since most cases are asymptomatic, studies on these patients are limited, and the detected amounts of air are usually less 1 cm3.For this reason, we wanted to present this case because the detection of these patients is important both to protect patients from complications that may develop after discharge and to prevent legal problems that may occur.

CASE REPORT

A 66-year-old male patient came to the emergency department with complaining of chest pain that started in the morning.He had chest pain characterized as stabbing and accompanied by back pain.He had a past history of COPD, hypertension, coronary artery disease, and atrial fibrillation. The patient was regularly using beta-blockers, apixaban and furosemide.On his presentation, he had a blood pressure of 142/79 mm/Hg, heart rate of 95 bpm, respirations 22 bpm, temperature 36.3°C saturation %98 . The patient's ECG was consistent with atrial fibrillation and no significant pathological st-t change was observed.On physical examination his respiratory, cardiac, abdominal and neurological examinations were natural.Bilateral lower and upper extremity pulses were open.Blood tests were sent.The patient was loaded with 300 mg of ASA with a prediagnosis of acute coronary syndrome. The patient was pre-diagnosed with acute coronary syndrome and 300 mg ASA loading was performed.For back pain, 100 mcg fentanyl IV was administered.In his blood results there was no significant increase in troponin. Aortic dissection was suspected in the patient whose back pain did not decrease despite analgesic treatment, and it was decided to perform thoracoabdominal CT angiography with IV contrast.CT images taken after contrast

injection showed that air images in the right atrium and right subclavian vein (figure 1,2,3).

After the CT scan, the patient's blood pressure was 112/67 mm/Hg, heart rate was 70/min, saturation was %97 and respiratory rate was 12 bpm.For close follow-up, the patient had cardiac monitored and given left lateral decubitus position.During the follow-up, the patient did not develop dyspnea, hypotension, mental status change, tachycardia, tachypnea and hypoxia.The patient was consulted to cardiovascular surgery, cardiology, thoracic surgery and pulmonary medicine specialists.These specialists did not consider intervention on the patient.

In the control CT images taken 12 hours after the patient, it was seen that the locations of the air images changed and decreased (figure 4,5,6).

In the echocardiography performed by the cardiologist, it was found that the right heart cavities were within normal limits, no air image was observed.His EF was 50-55% and there was no wall motion defect.The patient remained under observation for 48 hours.he did not develop any symptoms and signs.The patient was discharged after all the emergencies were explained.

DISCUSSION

Vascular air embolism is an iatrogenic complication that is not common, usually asymptomatic, but can also lead to catastrophic consequences.Air embolisms can be arterial or venous, and usually occur as a result of surgical procedures, barotrauma, intravascular interventions, and contrast-enhanced imaging.The severity of the disease can vary depending on the rate of passage and amount of air supplied and the localization where the air is present.While 200-500 ml of air (≅3-5 ml/kg) given at 100 ml/sec can be fatal acutely, above the >50 ml of air can obstruct the right ventricular outflow tract and cause sudden hypotension and hypoxia 1 .Large bubbles reduce blood flow from the right heart while smaller bubbles become trapped in the pulmonary arterioles and coronary vessels by microcirculation, causing vasoconstriction and myocardial ischemia 1 . Studies of iatrogenic air embolism after CT scan with contrast are limited.Most of them could not be detected because they were asymptomatic. Generally, iatrogenic air embolisms detected are smaller than 1 cm3 2.

Larger than 1 cm3 of air embolisms may present as sudden onset of dyspnea, chest pain, hypotension, tachycardia, tachypnea, worsening of mental status, cyanosis 3. Patients with Atrioventricular Septal defect or pulmonary arteriovenous malformation are more likely to have neurological deficits 4.

The most common location of vascular air embolisms is the main pulmonary artery (5.52%) followed by the right atrium (2.2%), the left brachiocephalic vein (1.65%) and the superior vena cava (0.55%) 4. For diagnosis, ECG, PAAC, thorax CT and echocardiography can be used.Tachycardia, right loading findings, t wave changes can be seen on ECG.

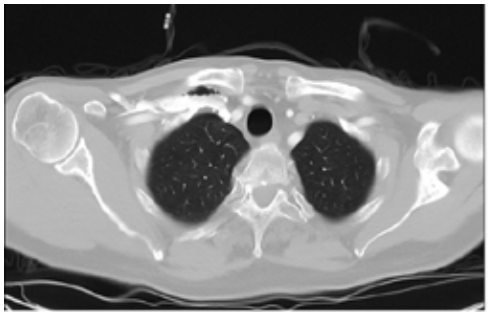
The patient can be placed in the Durant position during follow-up and treatment 5. Durant position is holding the patient in the left lateral decubitus position with the head down.In this way, air bubbles in the right ventricle can go to the right atrium, preventing air from entering the pulmonary artery and potential cardiopulmonary collapse 5 . Patients can be provided with 100% oxygen support, volume replacement and inotropic support in the hypotensive state and hyperbaric oxygen therapy if possible. In some cases, air can be mechanically aspirated from the right atrium or ventricle angiographically 5 .

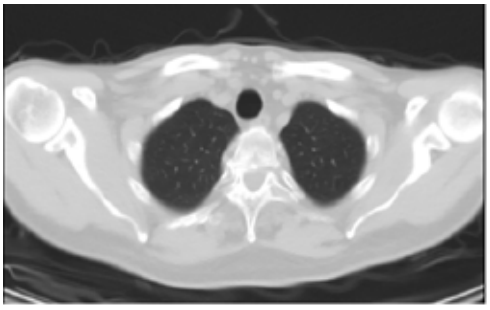
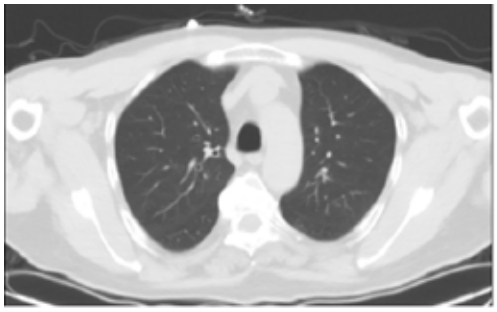
CONCLUSION

Vascular air embolism is a rare complication that may occur after contrast-enhanced imaging.It can be asymptomatic or have fatal consequences.It should be considered in the sudden onset of vital and mental status changes after imaging.Early diagnosis and treatment are important. Durant position in treatment, 100% oxygen support, volume replacement and inotropes and interventional procedures can be planned according to the clinical needs of the patient.

REFERENCES

1. Feil M. Preventing central line air embolism. *Am J Nurs*. 2015;115(6):64-69. doi:10.1097/01.NAJ.0000466327.76934.a0
2. Sodhi KS, Saxena AK, Chandrashekhar G, et al. Vascular air embolism after contrast administration on 64 row multiple detector computed tomography: A prospective analysis. *Lung India Off Organ Indian Chest Soc*. 2015;32(3):216-219. doi:10.4103/0970-2113.156216
3. Vesely TM. Air embolism during insertion of central venous catheters. *J Vasc Interv Radiol JVIR*. 2001;12(11):1291-1295. doi:10.1016/s1051-0443(07)61554-1
4. Woodring JH, Fried AM. Nonfatal venous air embolism after contrast-enhanced CT. *Radiology*. 1988;167(2):405-407. doi:10.1148/radiology.167.2.3357948
5. Bayón J, Martín M, Lozano I. [Pulmonary air embolism as a complication of central venous catheter]. *Med Intensiva*. 2010;34(5):360. doi:10.1016/j.medin.2009.07.007



Iliac Artery Aneurysma Rupture

Cesareddin Dikmetaş[1], Yavuzselim Koca[1], Can Ilçin[1], Salih Fettahoğlu[1], Süreyya Tuba Fettahoğlu[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic

Background and aim: Isolated iliac artery aneurysms are extremely rare. It can grow without symptoms and the risk of rupture is high. Early surgery is recommended for aneurysms larger than 3 cm in size.Isolated iliac artery aneurysms are seen 7 times more frequently in advanced age and especiallyin men than in women. Its etiology is generally atherosclerosis. The main complaints areabdominal pain, claudication, neurological and genitourinary complaints. There may also becomplaints such as pelvic pain and a feeling of fullness. Rupture risk can reach up to 70% due toasymptomatic progression and operative mortality is also high. Surgical repair is the goldstandard in treatment. In this case, we talked about a patient with a ruptured iliac artery aneurysmwho came to the emergency department with rare symptoms and his management.

Case: An eighty-year-old male patient was admitted to our emergency department withcomplaints of constipation and inguinal pain. In the first evaluation of the patient, his vitalsigns were found to be stable. On physical examination, a pulsatile mass was detected in the leftinguinal region. Peripheral pulses were palpable bilaterally. No additional pathological findingwas detected.Abdominal computed tomography revealed extravasation at the level of the left internaliliac artery and the appearance of a hematoma around it (image-1). Since the patient's hematomawas not proximal, it was thought that he had a complaint of constipation because the pulse wasexerting pressure on the intestine. Meanwhile, the patient's vital examination revealed that he hadbecome hypotensive and tachycardic. The patient, who had a GCS of 15, oriented andcooperative, was urgently referred to the center of cardiovascular surgery by starting thenecessary medical treatment support.

image-1:left internal iliac arterial extravasation and hematoma appearance

Conclusions: Due to the asymptomatic progression of isolated iliac artery aneurysms, which areextremely rare, the risk of rupture is very high. Whether the aneurysm ruptures rather than its sizedetermines mortality. After diagnosis, cardiovascular surgery should be consulted and treatedquickly. It should be known that the mortality rate is high in ruptured cases despite the operation.In the emergency department, such atypical cases should be considered in the clinical approach,since they are life-threatening even if the heart rate can be taken, even if the complaint isconstipation.

Anahtar Kelimeler : aneurysm , aneurysm rupture , internal iliac artery , Mortality

Retrospective Analysis of Drowning Cases Evaluated in the Emergency Department

[1]Dilay Satılmış

[1]Department of Emergency Medicine, University of Health Sciences Sultan 2 Abdülhamid Han Training and Research Hospital, Istanbul, Turkey

Abstract

Introduction: Drowning is a preventable cause of morbidity and mortality. Complications and mortality rates of drowning cases are high. Our study aims to reveal the epidemiological, demographic characteristics, clinical course, and mortality rates of the cases who applied to our emergency department (ED) due to drowning.

Methods: The files of drowning cases followed in the ED for 5 years between January 2018 and August 2022 were analyzed retrospectively and the data were evaluated according to Szpilman's clinical classification.

Results: A total of 45 patients admitted to ED with drowning were included in the study, and the patients were divided into 2 groups, 86.7% (n:39) were survivors and 13% (n:6) were non-survivors. 71.1% of the patients were male and 28.9% were female. The mean age was 33 years. 44.4% of the patients were admitted to the clinic, 20% were admitted to the intensive care unit, and 24.4% were discharged. The most common reason was suicidal jumping (48.9%), followed by accidental falling into the water (26.7%) and drowning while swimming (24.4%). When evaluated according to laboratory findings, troponin, creatinine, and AST levels were statistically significantly higher in non-survivor patients ($p<0.01$). PH, bicarbonate, and lactate levels in blood gas were significant in predicting mortality. The 30-day mortality rate was 13.3%. When we grouped the patients according to Szpilman's clinical classification and examined the relationship with mortality, 66.7% of the non-survivor patients were grade 6 and the mortality rate was significantly higher.

Conclusions: In conclusion, we observed that the increase in grade according to Szpilman's clinical classification is effective in predicting the mortality rate in drowning cases and is a useful measure that can be used as a predictor that can help identify high-risk cases.

Keywords: Drowning, mortality, emergency department, szpilman's clinical classification

Introduction

Drowning is defined as a preventable cause of mortality and morbidity without any injury, with varying results. According to the Global Drowning Report of the World Health Organization, it is stated that an average of 360,000 people die every year as a result of drowning (1). Although Turkey has a very long coastline, the number of people who can swim is very small. Even if the figures change every year, according to the data of the Turkish Statistical Institute (TUIK), an average of 643 people drown every year in Turkey (2). In drowning cases, rescue and first aid failure, delayed intervention, even when more advanced treatments are started, may cause end-organ damage secondary to hypoxia, and the complication and mortality rates of the cases are high. For these reasons, it is important to record and examine drowning cases. As such, this present study aimed to examine the demographic, clinical, laboratory findings and mortality rates of the adult cases aged 18 years and older , who applied to our emergency department (ED) due to drowning, and to determine the effectiveness of Szpilman's Clinical Classification in identifying high-risk cases.

Material and Methods

In our study, the data of all patients who were admitted to our ED with a prediagnosis of drowning and hospita-

lized in the Sultan 2. Abdulhamid Han Training and Research Hospital between January 2018 and August 2022 were evaluated retrospectively. To access the data of the patients hospitalized with the preliminary diagnosis of drowning, the protocol numbers of the patients who received the drowning code according to the ICD-10 diagnostic coding system were obtained from the hospital automation system. With the protocol numbers obtained, the files of the patients were accessed from the hospital archive.

Adult patients over the age of 18 whose first intervention was performed in the ED and whose clinical course information could be accessed after clinical admission were included in our study. Patients whose admission clinical and laboratory parameters could not be reached, who were referred to an external center, and whose functional outcome information could not be reached, were excluded from the study.

All patients' demographic characteristics, comorbid diseases, emergency department admission laboratory parameters, Glasgow Coma Scale (GCS), endotracheal intubation, drowning patterns, and hospital discharge status were recorded. Patients were also classified according to Szpilman's clinical classification (Table 1). The association of this classification with 30-day mortality was examined.

Statistical analysis

For statistical analysis of the patient data, IBM SPSS Statistics 25.0 (IBM Corp, Armonk, NY) was used. All continuous data in this study were expressed as a median, interquartile range (IQR), and range for each value (normality was assessed using the Kolmogorov–Smirnov, and Shapiro–Wilk tests). The Mann-Whitney U test was used to compare continuous variables between two groups, whereas the chi-square test was performed to compare categorical variables. The 95 percent confidence interval was used to evaluate all analyses, and significance was determined at the $p < 0.05$ level.

Results

A total of 45 patients admitted to ED with drowning were included in the study, and the patients were divided into 2 groups, 86.7% (n:39) were survivors and 13% (n:6) were non-survivors. 71.1% of the patients were male and 28.9% were female. The median age was 33 years. The most common coexisting diseases were hypertension (N:2, 4.4 %) and coronary artery disease (CAD) (N:2, 4.4 %). Application laboratory results of the patients are given in Table 2.

When the patients were evaluated according to their final diagnosis, 44.4% of the patients were hospitalized, 20% were taken to the intensive care unit, and 24.4% were discharged. The 30-day mortality rate was 13.3%. The most common reason was suicidal jumping (48.9%), followed by accidental falling into the water (26.7%) and drowning while swimming (24.4%) (Table 3).

When evaluated according to laboratory findings, troponin, creatinine, and AST levels were statistically significantly higher in non-survivors than in survivors ($p<0.01$). In addition, pH, bicarbonate, and lactate levels in blood gas were significant in predicting mortality (Table 4).

When we classified the patients according to Szpilman's clinical classification and examined the relationship with mortality, 4 of the 6 non-survivor patients (66.7%) who died were Grade 6, 1 non-survivor patient was Grade 5 (16.7%) and 1 non-survivor patient was Grade 3 (16 .7%). While no mortality was observed in other grades, the mortality rate in Grade 6 was statistically significant (66.7%, $p<0.001$) (Table 5).

Discussion

In the study of Lopez et al. on 500 drowning cases, 73.4% of the drowning cases were men (3) and in the study of Real, A. Del, et al. on mortality rates in drowning in Spain, the odds of drowning in men were four times higher than in women (4). When the underlying causes are examined in the literature, it has been reported that men participate more in water-based activities than women, stay alone in deeper waters more often, refuse to swim

under the influence of alcohol, and refuse to wear a life jacket (5,6,). In our study, the rate of male patients was higher than female patients, similar to other studies (71.7% vs. 28.9%).

In the study of Şık N. et al. to evaluate the relationship of blood gas values with hospitalization, need for respiratory support, and prognosis in 89 drowning cases: poor prognosis and lactate level were positively correlated; blood gas pH level and bicarbonate (HCO3) levels were negatively correlated. In other words, a decrease in blood gas pH and HCO3 level and an increase in lactate level were found to be associated with poor clinical course and the need for non-invasive mechanical ventilator (NIMV) support in these patients (7). Similarly, in our study, blood gas pH and HCO3 levels were significantly lower and lactate levels were higher in patients who died compared to those who survived.

It was reported in the studies by Ballesteros et al. and Başol N. et al. that acute tubular necrosis and acute renal failure secondary to hypoxia could be seen after drowning. In the comparison of creatinine values of deceased and surviving patients, it was stated that the mean creatinine value of deceased patients was statistically significantly higher than the mean creatinine value of surviving patients (8,9). Similarly, in our study, the creatinine level of patients who died was higher than those who survived, and the difference was statistically significant, supporting the increase in creatinine secondary to tissue hypoxia.

In the clinical grading recommended by Szpilman for determining the prognosis of drowning, the mortality rate ranges from 0 to 93%, and 0% in groups 0 and 1, 0.2% in group 2, 5.2% in group 3, 19.4% in group 4, 44% in group 5, and 93% in group 6 (10).

When we examined the mortality rates in drowning cases in the literature, in the study of Shetty et al., in which they aimed to examine the epidemiology of drowning in 7551 cases in 11 years in Mangalore, the coastal region of India, 42.27% of the cases were suicides, and the mortality rate was 13.03%. (11) .Similarly, in our study, our 30-day mortality rate was 13.3%, and suicide cases were in the first place (48.9%).

Başol N. et al. stated that the mortality rate increased as the grade increased, and while the mortality rate was 40% in Grade 5, it was 100% in Grade 6 (9). Similarly, in our study, the highest rate of mortality was seen in Grade 6 (66.7%). In our study, unlike the other studies, one patient died in Grade 5 and one patient died in Grade 3. When we evaluated both cases separately, both had a GCS of 5 at admission, and the case with a grade of 3 was a suicide case.

This study has some limitations. First of all, the present study is a single-center study and its population was limited to adult patients presenting to the ED. Another limitation of the study is the inability to access the laboratory findings of patients whose ICD code was entered incorrectly and who were exitus at admission.

Conclusion

In conclusion, we observed that the increase in grade according to Szpilman's clinical classification is effective in predicting the mortality rate in drowning cases and is a useful measure that can be used as a predictor that can help to identify high-risk cases. We think that it would be beneficial to conduct prospective studies in new, larger patient groups for a new scoring system in which all parameters are used together to predict the clinical course and mortality in cases of drowning.

References

1.World Health Organization. *Preventing drowning: an implementation guide*. World Health Organization, 2017.

2. Türkiye İstatistik Kurumu. (2009). "İl ve İlçe Merkezleri Ölüm İstatistikleri 2008". (2009) 84. Ankara.

3.Girela-López, Eloy, et al. "Epidemiology and autopsy findings of 500 drowning deaths." Forensic science international 330 (2022): 111137.

4.Real, Á. Del, et al. "Atmospheric circulation and mortality by unintentional drowning in Spain: from 1999 to 2018." Perspectives in public health (2021)17579139211007181.

5.Peden, A.E., Franklin, R.C. & Leggat, P.A. Breathalysing and surveying river users in Australia to understand alcohol consumption and attitudes toward drowning risk. BMC Public Health 18, 1393 (2018). https://doi.org/10.1186/s12889-018-6256-1.

6.Peden, A.E.; Franklin, R.C.; Leggat, P.A. Exploring visitation at rivers to understand drowning risk. Inj. Prev. 2019, 25, 392–399.

7.Şık, Nihan, et al. "A reappraisal of childhood drowning in a pediatric emergency department." The American Journal of Emergency Medicine 41 (2021): 90-95.

8. Ballesteros, M., Gutirrez-Cuadra, M. Munoz, P., Minabres, E., 2009. Prognostic factors and outcome after drowning in an adult population. Acta Anaesth. Scand. 53, 935-940.

9. Başol, Nurşah, Ahmet BAYDIN, and Türker YARDAN. "Acil servise boğulma nedeniyle başvuran hastaların geriye dönük incelenmesi." Journal of Experimental and Clinical Medicine 29.2 (2012): 121-125.

10.Szpilman D. Near-drowning and drowning classification: a proposal to stratify mortality based on the analysis of 1,831 cases. Chest 1997;112:660-5.

11.Shetty, B. Suresh Kumar, and Mahabalesh Shetty. "Epidemiology of drowning in Mangalore, a coastal Taluk of South India." Journal of Forensic and Legal Medicine 14.7 (2007): 410-415.

Table(s)

Table 1. Szpilman's Clinical Classification

Stage	Symptomatology
Grade 0	None
Grade 1	Lung auscultation normal + cough
Grade 2	Rales in some areas of the lung
Grade 3	Acute pulmonary edema without hypotension
Grade 4	Acute pulmonary edema with hypotension
Grade 5	Isolated respiratory arrest
Grade 6	Cardiopulmonary arrest

Table 2. Demographics and clinical characteristics of the patients

Variables (n= 45)	
Age, median (IQR)	33 (22) [18-70]
Gender, n (%)	
Female	13 (28.9%)
Male	32 (71.7%)
Comorbid Disease	2 (4.4%)
HT, n (%)	2 (4.4%)
CAD, n (%)	2 (4.4%)
Arrival Examination	
PH, median (IQR) n=35	7.32 (0.23) [6.45-7.43]
Lactate, median (IQR) n=34	4.63 (7.57) [0.8-29]
HCO3, median (IQR) n=35	19.1 (10.4) [3-29.4]
PCO2, median (IQR) n=35	43.2 (14.4) [7.4-133]
BE, median (IQR) n=34	7 (13.68) [0.1-43.7]
Sat O2 (%) n=31	98 (6) [60-100]
SBP, mmHg n=34	121 (20) [50-160]
DBP, mmHg n=34	80 (13) [30-102]
Heart rate, beats/min n=33	85 (35) [65-168]
Respiratory Symptom, n (%), n=44	10 (22.7%)
Szpilman's Clinical Classification median (IQR)	**0 (2) [0-6]**
0	29 (64.4%)
1	5 (11.1%)
2	1 (2.2%)
3	4 (8.9%)
4	1 (2.2%)
5	1 (2.2%)
6	4 (%8,9)
GCS, median (IQR)	15 (0) [3-15]

Abbreviations: *GCS: Glasgow Coma Scale, HT: Hypertension, CAD: Coronary Artery Disease, HCO3; bicarbonate, BE; Base excess, SBP; systolic blood pressure, DBP; diastolic blood pressure*

Table 3. The final diagnosis of the patients

Variables (n=45)	
Endotracheal Intubation	6 (13.3%)
Final ED Status	
ICU	9 (20.0%)
Service	20 (44.4%)
Discharge	11 (24.4%)
Exitus	5 (13.3%)
30-day mortality, n (%)	6 (13.3%)
Etiology	
Accidental	12 (26.7%)
Suicidal	22 (48.9%)
Swimming	11 (24.4%)

Abbreviations: ***ICU;*** *Intensive Care Unit*

Table 4. Comparison of The Main Laboratory Findings of Survivor and Non-Survivor Patients

Laboratory Findings, median (IQR)	**Survivor, n=39**	**Non-Survivor, n=6**	**p-value**
WBC, $10^3/mm^3$,n=40	10.9 (3.61) [3.68-18.20]	13.7 (13.66) [5.93-26.30]	0.383
Lymphocyte count, $10^3/mm^3$ n=40	**2.20 (1.54) [0.6-6.07]**	**6.43 (3.1) [4.15-7.35]**	**<0.001**
Hemoglobin n=40	13.96 (2.57) [6.9-16.5]	14.45 (3.53) [9.8-15.5]	0.754
Creatinine, mg/dL n=40	**0.94 (0.35) [0.57-1.61]**	**1.4 (0.45) [0.98-1.57]**	**<0.01**
ALT n=41	16.0 (7.2) [6.3-53.5]	176 (856.4) [5.5-1577]	0.094
AST n=41	**19 (6.4) [9.9-55.0]**	**152 (765.5) [24-1557]**	**<0.001**
Ca n=40	**9.6 (1.28) [7.53-10.79]**	**10.35 (1.43) [9.23-13.36]**	**0.024**
Troponin n=22	**4.32 (7.66) [1.1-29.21]**	**28 (1374.05) [5.8-2730.9]**	**0.048**
PH n=35	**7.35 (0.16) [6.97-7.43]**	**6.93 (0.47) [6.45-7.15]**	**<0.001**
HCO3 n=35	**22 (10) [3.0-29.4]**	**11.6 (8.9) [4.5-15.8]**	**<0.001**
PCO2 n=35	42 (13.3) [7.4-62.5]	49.6 (82.2) [30.3-133]	0.334
BE n=34	**5.5 (8.9) [0.1-24.4]**	**21.9 (22.2) [12.8-43.7]**	**<0.01**
Lactate n=34	**3.45 (5.2) [0.8-15.4]**	**15.35 (10.98) [7.4-29]**	**<0.001**
Pao2/Fio2	39.5 (22.8) [15.9-189]	94 (142.4) [21.1-298]	0.091

Abbreviations: *ALT, alanine aminotransferase; AST, aspartate aminotransferase; WBC, white blood count.*

Table 5. Comparative Evaluation of Mortality Rates According to Szpilman's Clinical Classification

	Survivor n = 39	Non-Survivor n= 6	p-value
Szpilman's Clinical Classification, No, (%)			
Grade 0	**29 (74.4%)**	**-**	**<0.01**
Grade 1	5 (12.8%)	-	-
Grade 2	1 (2.6%)	-	-
Grade 3	3 (7.7%)	1 (16.7%)	0.448
Grade 4	1 (2.6%)	-	-
Grade 5	-	1 (16.7%)	-
Grade 6	**-**	**4 (66.7%)**	**<0.001**

AN INFANT PRESENTING WITH STATUS EPILEPTICUS ASSOCIATEDWITH BRAIN EDEMA AND INTRACRANIAL HEMORRHAGE DUE TOA MOTOR VEHICLE ACCIDENT: A CASE REPORT

Faruk Danış[1], Kaan Çelik[1]

Bolu AIBU İzzet Baysal Training and Research Hospital, Department of Emergency Medicine

Introduction

Traumatic brain injury (TBI) is the leading cause of death and disability in children. The most common causes of TBI are falls, being struck by an object, motor vehicle accident, assault, and self-harm. It is frequently encountered in pediatric patients in emergency departments (ED). The annual mortality rate from traumatic injuries in children younger than 4 years is 5/100,000. The mortality rate in children younger than 4 years is higher than in children aged 5-14 years[1]. TBI can occur by extra parenchymal injury (epidural hematoma, subdural hematoma, subarachnoid hemorrhage, and intraventricular hemorrhage), intraparenchymal injury (intracerebral hemorrhage, diffuse axonal injury, and intracerebral hematoma) and vascular injury (vascular dissection, carotid artery cavernous sinus fistula, dural arteriovenous fistula, and pseudoaneurysm).[2] We wanted to share our case with the emergency medicine specialists and residents, who are facing serious injuries.

Case

An 8-month-old girl was brought to our ED after a motor vehicle accident. In the Glasgow coma score evaluation, it was seen that she opened her eyes with painful stimuli, flexor response as a motor response, and groan-like sound with pain as a verbal response (GCS 7). She was administered IV diazepam twice because she had seizures at the accident site. She was intubated according to the rapid sequence intubation procedures, and the patient's treatment was arranged in ED while waiting for the intensive care bed to be adjusted. For continued generalized tonic-clonic seizure in ED phenytoin and levetiracetam loads were applied to her. After the IV bolus administration of midazolam, midazolam infusion was started for the patient whose seizure still continued, and the infusion dose was increased until seizure-freeness was achieved (6 mcg/kg/min). Computed tomography of the brain revealed subdural and subarachnoid hemorrhage, skull fracture, and cerebral edema; other system imaging was normal (Fig. 1 a, b). As an antiedema treatment, hypertonic saline (3%) was given at a dose of 5 ml/kg by rapid infusion in 15 minutes, and continuous infusion was started at a dose of 1 ml/kg/h. Supportive treatments were administered then she was transferred to the pediatric intensive care unit. It was learned that topiramate has loaded on the patient to benefit from the antiedema effect, and nutrition was started by the nasogastric tube at the 30th hour after the accident. She was discharged without any neurological disability, only under levetiracetam treatment after about 2 months of hospitalization.

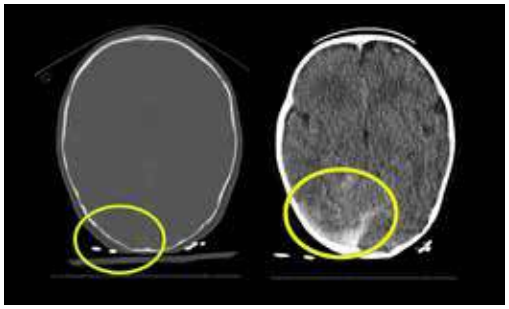


Figure 1: Brain computed tomography of case

a-Skull fracture is seen. b- Subdural-subarachnoid hemorrhage, and cerebral edema

Discussion

According to the PECARN classification, our patient was classified as severe trauma because the accident was a motor vehicle accident involving a rollover, the patient was thrown out of the vehicle during the accident, and the patient under the age of 2, fell from a height of more than 90 cm.[3] It is known that optimal management of childhood TBI in the ED has seriously positive effects on long-term prognosis.[4] Preventing the development of intracranial hypertension in a child with TBI improves cerebral perfusion and oxygenation, and prevents cerebral herniation.[5] We wanted to share with you the management process of the patient in the ED, who is being followed up in our hospital with almost zero sequelae because of well-organized emergency and supportive treatments.

References:

1- Araki T, Yokota H, Morita A. Pediatric Traumatic Brain Injury: Characteristic Features, Diagnosis, and Management. Neurol Med Chir (Tokyo). 2017 Feb 15;57(2):82-93. doi: 10.2176/nmc.ra.2016-0191.

2- Silen ML, Kokoska ER, Fendya DG, Kurkchubasche AG, Weber TR, Tracy TF. Rollover injuries in residential driveways: age-related patterns of injury. Pediatrics. 1999 Jul;104(1):e7. doi: 10.1542/peds.104.1.e7.

3- Gambacorta A, Moro M, Curatola A, Brancato F, Covino M, Chiaretti A, Gatto A. PECARN Rule in diagnostic process of pediatric patients with minor head trauma in emergency department. Eur J Pediatr. 2022 May;181(5):2147-2154. doi: 10.1007/s00431-022-04424-9.

4- Kochanek PM, Tasker RC, Bell MJ, Adelson PD, Carney N, Vavilala MS, Selden NR, Bratton SL, Grant GA, Kissoon N, Reuter-Rice KE, Wainwright MS. Management of Pediatric Severe Traumatic Brain Injury: 2019 Consensus and Guidelines-Based Algorithm for First and Second Tier Therapies. Pediatr Crit Care Med. 2019 Mar;20(3):269-279. doi: 10.1097/PCC.0000000000001737.

5- Lui A, Kumar KK, Grant GA. Management of Severe Traumatic Brain Injury in Pediatric Patients. Front Toxicol. 2022 Jun 24;4:910972. doi: 10.3389/ftox.2022.910972.

Endovascular Treatment of Acute Ischemic Stroke: Demographics, Clinic and Prognosis

Ümit GÖRGÜLÜ

Ankara City Hospital, Neurology Clinic

Objective: Stroke is the second leading cause of death and a major cause of disability worldwide. The phrase "time is brain" emphasizes that human nervous tissue is rapidly and irretrievably lost as stroke progresses and that therapeutic interventions should be emergently pursued. In this study, we aimed to present demographic, clinical and prognostic data in the endovascular treatment (EVT) of acute stroke.

Methods: The files of patients who were admitted with the diagnosis of acute ischemic stroke and received EVT between January 2021 and May 2022 were evaluated retrospectively. We recorded the clinical and demographic characteristics and endovascular procedure characteristics of all patients.

Results:

Of the 147 patients included in the study, 75 were female and 72 were male. The median age was 70 (20 - 93. Received recombinant tissue plasminogen activator therapy together with mechanical thrombetomy in 13 (8.8%) patients. Wake-up stroke rate is 4.08%. Hypertension (59.18%) was the most common stroke risk factor. The other most common risk factors were coronary artery disease 32.65%, diabetes mellitus (24.49%) and atrial fibrillation (21.09%). Antiplatelet drug use was used in 39.46% of the patients and anticoagulant drug use in 24.49% of the patients. The median National Institutes of Health Stroke Scale score at admission was 16 (5 - 25) and 52.38% of patients had moderate stroke. 94.56% patients had anterior circulation (55.10% right side and 39.46% left side), 5.44% had posterior circulation occlusion. Our successful recanalization rate was 80.27%. At 90 days, 38% of the patients had a favorable clinical outcome and a 27.2% mortality rate. The etiology was large vessel atherosclerosis in 42.2%, cardioembolic stroke in 40.1%, and unclear in 17.7% of patients.

Conclusions: Patients with large vessel occlusion suitable for EVT can be successfully treated with early referral to stroke centers.

Keywords: Acute ischemic stroke, Endovascular stroke treatment, Mechanical thrombectomy

Introduction

Stroke is the second leading cause of death and a major cause of disability worldwide. Its incidence is increasing because the population ages. In addition, more young people are affected by stroke in low and middle-income countries (1). In Turkey, approximately 132.000 people are diagnosed with this disease each year (2). The phrase "time is brain" emphasizes that human nervous tissue is rapidly lost as stroke progresses and emergent evaluation and therapy are required. The typical patient loses 1.9 million neurons each minute in which stroke is untreated (3).

About 87% of all strokes are ischemic strokes, in which blood flow to the brain is blocked (4). Although intravenous (IV) recombinant tissue plasminogen activator (r-tPA) is safe and effective in reducing disability in patients with acute ischemic stroke, several limitations prevent its more widespread use, including its narrow therapeutic time window (within 4.5 hours of onset) and poor effect in the recanalization of large vessels (5). Endovascular therapy has been proven a safe and effective therapy for patients with large vessel occlusion who do not respond to or are ineligible for IV thrombolysis (6).

In this study, we aimed to present demographic, clinical and prognostic data in the EVT of acute stroke.

Materials and Methods

The files of patients who were admitted with the diagnosis of acute ischemic stroke and received endovascular treatment between January 2021 and May 2022 were evaluated retrospectively.

Following data of patients were recorded; demographic datas, vascular risk factors, antiplatelet/anticoagulant treatments, brain computed tomography (CT) and magnetic resonance imaging (MRI) findings, stroke severity [National Institute of Health Stroke Scale (NIHSS); minor stroke 1–4, moderate stroke 5-15, moderate-to-severe stroke 16–20, severe stroke 21–42], Alberta Stroke Program Early CT Scores (ASPECTS), Thrombolysis in Cerebral Infarction (TICI) and CT angiography collateral scores, major vessel occlusion site and side, etiological causes of stroke [The TOAST classification: large-artery atherosclerosis (LVA), cardioembolism, small-vessel occlusion, stroke of other determined etiology, stroke of undetermined etiology], clinical outcome [discharge and at 90 days modified Rankin Scores (mRS)], arcus types, ischemic stroke treatment related parameters (symptom-door, door-groin puncture times, symptom-groin, groin puncture-revascularization, symptom- revascularization times, use of stentretrive, use of carotid stenting, number of passes) were recorded.

Results

Of the 147 patients included in the study, 75 were female and 72 were male. The median age was 70 (20 - 93), and 72 (20 - 93) in female and it was 67.5 (31 - 90) in male. Received IV r-tPA therapy together with mechanical thrombetomy in 13 (8.8%) patients. Wake-up stroke rate is 4.08%. Hypertension in 59.18% of the patients, coronary artery disease in 32.65%, diabetes mellitus in 24.49%, atrial fibrillation in 21.09%, heart valve replacement in 11.56%, 11.56%, had stroke, 7.48% had heart failure and 4.08% had hyperlipidemia. Antiplatelet drug use was used in 39.46% of the patients and anticoagulant drug use in 24.49% of the patients. The median NIHSS score at admission was 16 (5 - 25), with 52.38% moderate, 28.57% moderate-severe, 10.20% severe and 8.84% minor stroke. The median ASPECTS was 9 (2 - 10) and the median collateral score was 2 (0 - 3). 94.56% patients had anterior circulation (55.10% right side and 39.46% left side), 5.44% had posterior circulation occlusion. Our successful recanalization rate (TICI: 2b and 3) was 80.27%. At 90 days, 38% of the patients had a favorable clinical outcome (mRS; 0-2) and a 27.2% mortality rate. The etiology was LVA in 42.2%, cardioembolic stroke in 40.1%, and unclear in 17.7% of patients (Table 1).

Table 1: Demographic, clinical, prognostic and procedural data of patients undergoing ET in acute stroke.

	n	%	Median (Min-Max)
Gender and Age	147		70 (20 - 93)
Female	75	51	72 (20 - 93)
Male	72	49	67.5 (31 - 90)
Risk Faktors	147		
Ht	87	59.18	
Dm	36	24.49	
Hl	6	4.08	
AF	31	21.09	
CAD	48	32.65	
HF	11	7.48	
HVR	17	11.56	
Stroke	17	11.56	
Others	5	3.40	
Medicine	147		
Antiplatelet	57	39.46	
Anticoagulant	36	24.49	

Wake up stroke	6/147	4.08	
NIHSS at admission	147		16 (5 - 25)
Minor stroke, 1–4	13	8.84	
Moderate stroke, 5–15	77	52.38	
Moderate to severe stroke, 16–20	42	28.57	
Severe stroke, 21–42	15	10.20	
Clinical outcome			
mRS at 90 days	137		4 (0 - 6)
0-2	52	38	
3-5	45	32.8	
6	40	27.2	
ASPECTS			9 (2 - 10)
Collateral score			2 (0 - 3)
TICI	146		
0	16	10,88	
1	8	5.44	
2a	4	2.72	
2b-3	118	80.27	
Intracranial occlusion location			
Anterior circulation	139	94.56	
Right	81	55.10	
M1	49	33.33	
M2	9	6.12	
İCA distal	17	11.56	
İCA proksimal	1	0.68	
Tandem	3	2.04	
Left	58	39.46	
M1	36	24.49	
M2	6	4.08	
İCA distal	13	8.84	
İCA proksimal	2	1.36	
Tandem	3	2.04	
Posterior circulation	8	5.44	
Basillary	8	5.44	
Etiology	147		
Large-artery atherosclerosis	62	2.18	
Cardioembolism	59	0.14	
Undetermined etiology	26	7.69	
IV r-tPA	13/134	8.84	

Table 2: Comparison of our study data with the HERMES study.

	Our Study	HERMES Meta-analysis	
		Intervention population	Control population
Number of patients	139	634	653
Demographic characteristics			
Median age (years)	71 (20 - 93)	68 (57–77)	68 (59–76)
Female/Male	52/48 %	48/52 %	46/54 %
Past medical history			
HT	59%	56%	59%
DM	24%	13%	13%
AF	22%	33%	13%
Clinical characteristics			
NIHSS	16 (5 - 25)	17 (14–20)	17 (13–21)
Imaging characteristics			
ASPECTS	9 (2 - 10)	9 (7–10)	9 (8–10)
Intracranial occlusion location			
Internal carotid artery	24%	21%	22%
M1	61%	69%	69%
M2	11%	8%	7%
Others	4%	2%	2%
Treatment with intravenous alteplase	9%	83%	87%
mRS score 0–2 at 90 days	38%	46%	26.50%
Mortality	27.20%	15·3%	18.90%

Discussion

EVT is of benefit to most patients with acute ischaemic stroke caused by occlusion of the proximal anterior circulation, irrespective of patient characteristics or geographical location. The number needed to treat for one patient to have reduced disability of at least 1 point on mRS is 2.6 (7). After the HERMES meta-analysis study, which included 5 randomized clinical trials, published in 2015, endovascular stroke treatment entered the guidelines (7). In our study, the rate of good prognosis was lower than the interventional population in the HERMES study (38% vs. 46%) and higher than the control population (38% vs. 26.5%). Our mortality rate was higher than both population (27.2% vs 15.3% and 18.9%). However, there are studies in the literature similar to our results. (8). In our study, when the factors that could affect the low clinical outcome and high mortality rate compared to the interventional group in the HERMES study were evaluated: in our patient group, the median age, female sex ratio, diabetes diagnosis, ICA occlusion, symptomatic bleeding rate was higher, and tPA usage rate was lower (Table 2).

It is known that the rates of functional independence after EVT are significantly lower and mortality is higher in elderly patients, especially over the age of 80, compared to younger patients (9). Also previous studies have reported less favorable outcome (10-12) and less effect of endovascular treatment (EVT) (13-17) after ischemic stroke among women compared with men. The higher mean age and female sex ratio in our study (71 vs 68 and 52% vs. %48) may be one of the factors explaining the lower good outcome compared to the HERMES study.

As expected for large vessel occlusions, the prognosis worsens as the affected arterial irrigation area increases.

While the prognosis and complication rate is high in ICA occlusions, it is low in M2 occlusions. The high rate of ICA occlusion in our study (26.5% vs. 21%) may be associated with a worse prognosis (18). Also Tandem occlusions (TO) of the extracranial ICA and the distal ICA and/or middle cerebral artery in patients with acute ischemic stroke (AIS) are often associated with an unfavorable clinical outcome (19). In our study, the TO rate was 4%.

In our study our IV r-tPA usage rate (9% vs. 83%) is very low. Studies have shown that the use of r-tPA is beneficial in the appropriate patient population (20). However, its benefit is significantly reduced, especially in proximal large vessel occlusion (21). In addition, it is doubtful whether IV thrombolytics can provide additional benefit to the patient in an environment where endovascular treatment facilities are available (22). The low use of IV r-tPA is undoubtedly a shortcoming for our center that needs to be corrected. However, the use of IV r-tPA may have been limited by reasons such as missing the tPA treatment window due to the prolonged procedures during the pandemic period, problems in drug supply, high use of anticoagulants in the patient group included in the study, and the convenience of accessing the angio suite, which is available 24 hours a day, in our center, and focusing on EVT.

As a result, when IV tPA t is started in the first 4.5 hours of AIS and EVT is performed in the first 6 hours of acute ischemic stroke, efficacy and safety are proven treatments. Undoubtedly, more successful results will be obtained with the increase of the experience of the treated mmenezers.

References

1. Feigin, V. L., Norrving, B., & Mensah, G. A. (2017). Global burden of stroke. *Circulation research*, *120*(3), 439-448.
2. Saver, J. L. (2006). Time is brain—quantified. *Stroke*, *37*(1), 263-266.
3. Özkan E, Arsava EM, Topçuoğlu MA, Akut İnme ; Hasta değerlendirilmesi. Gökçe M, editör.İnme-1 Ankara: Türkiye Klinikleri; 2018 p.20-6.
4. Tsao CW, Aday AW, Almarzooq ZI, Alonso A, Beaton AZ, Bittencourt MS, et al. Heart Disease and Stroke Statistics—2022 Update: A Report From the American Heart Association. *Circulation*. 2022;145(8):e153–e639.
5. Rai A, Cline B, Williams E, et al. Intravenous thrombolysis outcomes in patients presenting with large vessel acute ischemic strokes—CT angiography-based prognosis. J Neuroimaging 2015;25(2):238–242. doi:10.1111/jon.12126.
6. Silva GS, Nogueira RG. Endovascular Treatment of Acute Ischemic Stroke. Continuum (Minneap Minn). 2020;26(2):310-331.
7. Goyal, M., Menon, B. K., van Zwam, W. H., Dippel, D. W., Mitchell, P. J., Demchuk, A. M., ... & Jovin, T. G. (2016). Endovascular thrombectomy after large-vessel ischaemic stroke: a meta-analysis of individual patient data from five randomised trials. *The Lancet*, *387*(10029), 1723-1731.
8. Kocatürk, Ö., & Kocatürk, M. (2020). Endovascular acute ischemic stroke treatment: Analysis of the first 100 cases.
9. Alawieh, A., Starke, R. M., Chatterjee, A. R., Turk, A., De Leacy, R., Rai, A. T., ... & Spiotta, A. M. (2019). Outcomes of endovascular thrombectomy in the elderly: a 'real-world'multicenter study. *Journal of neurointerventional surgery*, *11*(6), 545-553.
10. Di Carlo A, Lamassa M, Baldereschi M, Pracucci G, Basile AM, Wolfe CD, et al. European BIOMED Study of Stroke Care Group. Sex differences in the clinical presentation, resource use, and 3-month outcome of acute stroke in Europe: data from a multicenter multinational hospital-based registry. Stroke. 2003;34:1114–1119.

doi: 10.1161/01.STR.0000068410.07397.D7. [PubMed] [Google Scholar]

11. Niewada M, Kobayashi A, Sandercock PA, Kamiński B, Członkowska A International Stroke Trial Collaborative Group. Influence of gender on baseline features and clinical outcomes among 17,370 patients with confirmed ischaemic stroke in the international stroke trial. Neuroepidemiology. 2005;24:123–128. doi: 10.1159/000082999. [PubMed] [Google Scholar]
12. Lisabeth LD, Reeves MJ, Baek J, Skolarus LE, Brown DL, Zahuranec DB, et al. Factors influencing sex differences in poststroke functional outcome. Stroke. 2015;46:860–863. doi: 10.1161/STROKEAHA.114.007985. [PMC free article] [PubMed] [Google Scholar]
13. de Ridder IR, Fransen PS, Beumer D, Berkhemer OA, van den Berg LA, Wermer MJ, et al. Is intra-arterial treatment for acute ischemic stroke less effective in women than in men? Interv Neurol. 2016;5:174–178. doi: 10.1159/000447331. [PMC free article] [PubMed] [Google Scholar]
14. Goyal M, Demchuk AM, Menon BK, Eesa M, Rempel JL, Thornton J, et al. ESCAPE Trial Investigators. Randomized assessment of rapid endovascular treatment of ischemic stroke. N Engl J Med. 2015;372:1019–1030. doi: 10.1056/NEJMoa1414905. [PubMed] [Google Scholar]
15. Saver JL, Goyal M, Bonafe A, Diener HC, Levy EI, Pereira VM, et al. SWIFT PRIME Investigators. Stent-retriever thrombectomy after intravenous t-PA vs. t-PA alone in stroke. N Engl J Med. 2015;372:2285–2295. doi: 10.1056/NEJMoa1415061. [PubMed] [Google Scholar]
16. Goyal M, Menon BK, van Zwam WH, Dippel DW, Mitchell PJ, Demchuk AM, et al. HERMES Collaborators. Endovascular thrombectomy after large-vessel ischaemic stroke: a meta-analysis of individual patient data from five randomised trials. Lancet. 2016;387:1723–1731. doi: 10.1016/S0140-6736(16)00163-X. [PubMed] [Google Scholar]
17. Arnold M, Fischer U, Compter A, Gralla J, Findling O, Mattle HP, et al. BASICS Study Group. Acute basilar artery occlusion in the basilar artery international cooperation study: does gender matter? Stroke. 2010;41:2693–2696. doi: 10.1161/STROKEAHA.110.594036. [PubMed] [Google Scholar].
18. Ullberg, T., von Euler, M., Wassélius, J., Wester, P., & Arnberg, F. (2022). Survival and functional outcome following endovascular thrombectomy for anterior circulation acute ischemic stroke caused by large vessel occlusion in Sweden 2017–2019–a nationwide, prospective, observational study. *Interventional Neuroradiology*, 15910199211073019.
19. Rubiera, M., Ribo, M., Delgado-Mederos, R., Santamarina, E., Delgado, P., Montaner, J., ... & Molina, C. A. (2006). Tandem internal carotid artery/middle cerebral artery occlusion: an independent predictor of poor outcome after systemic thrombolysis. *Stroke*, *37*(9), 2301-2305.
20. Hacke W, Kaste M, Bluhmki E, Brozman M, Dávalos A, Guidetti D, et al. Thrombolysis with alteplase to 4·5 hours after acute ischemic stroke. N Engl J Med 2008;359: 1317–29
21. De Silva DA, Brekenfeld C, Ebinger M, Christensen S, Barber PA, Butcher KS, et al. The benefits of intravenous thrombolysis related to the site of baseline arterial occlusion in the Echoplanar Imaging Thrombolytic Evaluation Trial (EPITHET). Stroke 2010; 41: 295–99. 21.
22. Fischer U, Kaesmacher J, Mendes Pereira V, Chapot R, Siddiqui AH, Froehler MT, et al. Direct mechanical thrombectomy versus combined intravenous and mechanical thrombectomy in large-artery anterior circulation stroke: a topical review. Stroke 2017;48:2912–8.

The Role Of Immature Granulocyte In Patients With Complicated Appendicitis

Utku Murat Kalafat, Bilal Yeniyurt, Melih Uçan, Serkan Doğan

Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

SUMMARY

BACKGROUND: Acute appendicitis (AA) is the most common reason for abdominal surgery in emergency admissions. Excipients are used to help clinicians predict acute or perforated appendicitis that may affect treatment decisions. Based on this, we hypothesized that, in addition to classical inflammatory markers such as white blood cell count, left shift in neutrophils and CRP, the percentage of immature granulocytes (IG%) may be useful in the detection of appendicitis, at no additional cost. to determine its effectiveness.

METHODS: Cases of acute appendicitis were recorded retrospectively between January 2021 and January 2022. The study included 477 patients operated by general surgery with a preliminary diagnosis of acute appendicitis. It was divided into two groups as complicated appendicitis (phlegmonous, suppurative, perforated, abscess) and non-complicated appendicitis. For acute appendicitis, IG% and other inflammatory markers, namely white blood cell (WBC) count, neutrophil ratio and C-reactive protein (CRP) were evaluated.

RESULTS: AUC values of WBC, Neutrophil and granulocyte count were 0.590, 0.588 and 0.559, respectively, and we found that they were statistically significant. Each unit increase in the number of immature Granulocyte (IG) increases the probability of complication in appendicitis cases approximately 3333 times. The IG count was significant for OR and CI 95% complicated.

CONCLUSİON: In this study, we showed that AA patients with higher IG counts may be more likely to develop perforation. Combined with physical examination, imaging studies, and other laboratory tests, IG values can help clinicians identify high-risk AA patients in the emergency room.

Keywords:Appendicitis;complicated appendicitis; acute abdomen diagnosis; immature granulocytes, inflammatory markers

BACKGROUND:

Diagnostic causes of an acute abdomen range from a relatively mild illness to serious life-threatening illness. The most common causes of surgical acute abdomen in the emergency department are acute appendicitis with or without perforation, bowel obstruction, bowel perforation, bowel ischemia, diverticulitis, and hepatobiliary diseases, including acute cholecystitis and cholangitis. [1]

Acute appendicitis is one of the most common causes of presenting with acute abdominal pain and one of the most common diseases requiring surgical treatment. The vast majority of appendectomy operations are performed as an emergency. [2]

Delay in diagnosis and surgery of acute appendicitis may lead to complications related to perforation, gangrene and intra-abdominal abscess formation. Appendiceal perforation is associated with increased morbidity and mortality compared to non-perforating. Acute appendicitis is difficult to diagnose because the symptoms are not specific and there are no specific biomarkers.[3,4]

Therefore, early diagnosis and treatment of acute complicated appendicitis is critical.[5]

Many articles have focused on imaging modalities as well as preoperative laboratory parameters that can improve diagnostic accuracy in differentiating acute and perforated appendicitis. Differential and C-reactive protein (CRP) levels and white blood cell (WBC) counts are commonly obtained in patients with suspected appendicitis. CRP has been shown to increase markedly after appendiceal perforation or abscess formation, making it a potential indicator for perforated appendicitis; however, the WBC count is an early marker of appendiceal inflammation, but cannot reliably distinguish between acute and perforated appendicitis. [6]

Immature granulocytes (IG) in peripheral blood are an indicator of increased bone marrow activation.[7] Due to technical developments in automated hematological analyzers, the amount of IG can be easily measured and presented as a new biomarker of inflammation when performing routine complete blood count (CBC).[7-8] Studies have shown that IG count (IGC) is. and percentage (IG%) increases significantly in sepsis and infections compared to healthy individuals.

The aim of this study was to determine whether immature granulocyte count and percentage of CBC parameters add additional discriminating ability, in conjunction with traditionally used laboratory values, in the preoperative differentiation of acute and perforated appendicitis cases admitted to an emergency department. In this way, it is to determine a practical method to save radiologist labor and to expose patients to less radiation.

MATERIALS AND METHODS:

A total of 477 patients operated by general surgery with a preliminary diagnosis of acute appendicitis were included in the study; Diverticulitis in 6 patients and neuroendocrine tumor in 1 patient were excluded in the pathology reports, and the study was completed with 470 patients.

Age, gender, pathology report and leukocyte, hemoglobin, Platelet, MPV, RDW, Neutrophil, lymphocyte, Granulocyte count and percentage and CRP values of the patients were recorded. According to the pathology report of the patients, they were divided into two groups as complicated appendicitis (phlegmonous, suppurative, perforated, abscess) and non-complicated appendicitis.

Statistical Analysis

Categorical data are expressed as numbers and percentages. Normality analysis of continuous variables was performed using Kolmogorov Smirnov and Shapiro Wilk tests and skewness and kurtosis values. The t test was used in the analysis of data with normal distribution, and the Mann Whitney U test was used for those that did not, and the data were shown as mean+SD and median (IQR), respectively. The cutt-off values were determined by performing ROC analysis of the variables that were found to be significant between the groups. Binary logistic regression analysis was performed to determine the effect of granulocyte count in the diagnosis of complicated appendicitis. $P<0.05$ and 95% CI were used for statistical significance.

FINDINGS:

While 160 (34%) of the 470 patients included in the study were female, 310 (66%) were male, with a mean age of 35.13±0.95 and 32.48±0.68, respectively (p=0.023). While pathology findings consistent with complicated appendicitis were detected in 303 (64.5%) of the patients, we found that 167 (35.5%) had findings compatible with complicated appendicitis. We found that 34% of uncomplicated appendicitis cases were female and 34.1% of complicated appendicitis cases were female, and we found that there was no significant relationship between gender and pathological diagnosis (p=0.976). The distribution of laboratory parameters of the groups of patients according to their pathological diagnosis is shown in Table 1.

Table 1. Laboratory values of UCAP and AP groups

	Uncomplicated Appendicitis	Complicated Appendicitis	P
Age	32,99±0,73	34,32±0,97	0,36
WBC	12,76±0,25	14,23±0,37	<0.01
Hgb	13,77±0,11	14,02±0,16	0,078
Platelet	236000 (84000)	242000 (67500)	0,319
MPV	10,1 (1,6)	10,2 (1,6)	0,695
RDW	13,1 (1)	13,1 (1)	0,826
neutrophil	9,94±0,25	11,98±0,37	<0.01
lymphocyte	1,9 (0,9)	1,8 (1,1)	0,604
Granulocyte Percentage	0,2 (0,39)	0,2 (0,4)	0,077
Granulocyte Count	0,03 (0,05)	0,04 (0,05)	0,031
CRP	21,3 (56,74)	27,99 (87,55)	0,075

WBC; White blood cell, Hgb; hemoglobin, MPV; Mean Platelet volume, RDW; Red cell distribution width, CRP; C reactive protein, data with normal distribution are shown as mean+SD, and data not in accordance with the normal distribution are shown as median (IQR).

The ROC analysis of the independent variables, which were found to be significant in the analysis performed between the groups, was performed. (Fig. 1)

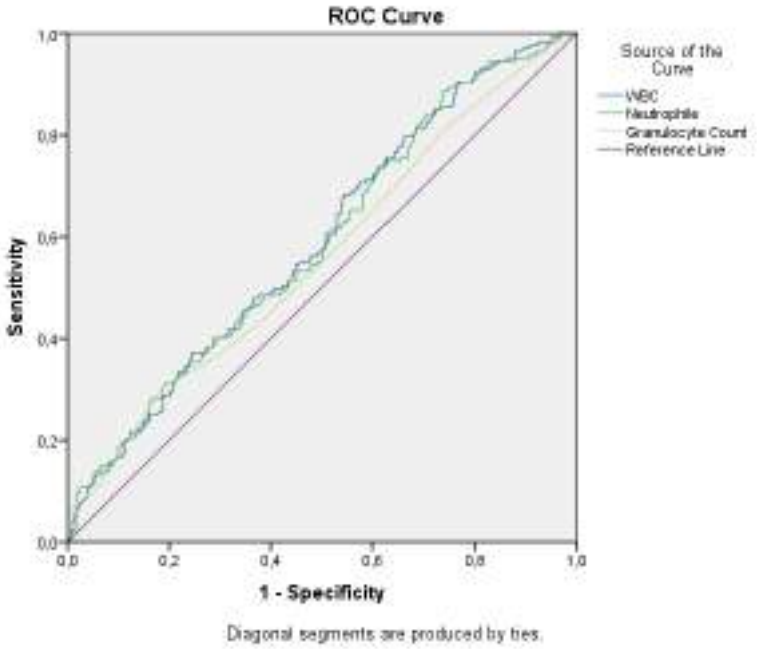


Figure 1. ROC analysis of significant independent variables

In the analysis of statistically significant independent variables between the groups; AUC values of WBC, Neutrophil and granulocyte count were 0.590, 0.588 and 0.559, respectively, and we found that they were statistically significant.

Table 2. ROC analysis results

Test Result Variables	Area	Sensitivity	Specificity	NLR	PLR	p	95% Confidence Interval
WBC >11,78	,590	68,3	45,5	0,80	1,44	,001	,537-0,643
Neutrophile >6,32	,588	89,2	25,4	0,42	1,20	,002	,534-0,641
Granulocyte Count >0,065	,559	30,5	81,2	0,86	1,62	,033	,505-0,614

Binary logistic regression analysis data of granulocyte count for the diagnosis of complicated appendicitis in cases of appendicitis are shown in Table 3. Each unit increase in the number of granulocytes increases the probability of complication in appendicitis cases by 3333 times.

Table 3. Binary Logistic Regression Analysis Results

Variable	β	S.E.	Wald	df	p	OR	%95 CI
Granülosit Sayısı	8,112	2,738	8,779	1	,003	3333,175	15,578-713172,642

DISCUSSION:

According to the data we obtained in patients who were operated with the diagnosis of acute appendicitis, the diagnostic role of IG% was determined in the differentiation of complicated and uncomplicated diagnosis.

The increase in circulating IG is a reaction of the blood marrow to bacterial infection. In recent years, it has been possible to detect the percentage and number of IG thanks to technical developments in automatic hematological analyzers. [7]

Studies on the use of IG measurements in the diagnosis of AA and the distinction between uncomplicated acute appendicitis and complicated acute appendicitis are scarce. In studies, many different parameters were compared with each other, as in our study, to evaluate the distinction between complicated and uncomplicated appendicitis.[9-13]

Mathews et al.[9] found that increased IG% was significant in the differentiation of acute and perforated appendicitis in the pediatric age group, but increased CRP level and left shift were more significantly significant for the diagnosis of perforated appendicitis, and when compared, IG% did not provide any additional benefit in this discrimination.[9]

Soh et al.[12] They found that delta neutrophil index (DNI), which is the circulating IG fraction, is a valuable prognostic marker in patients presenting to the emergency department with the complaint of acute abdominal pain. They suggested that patients with a DNI level of 0.9% or higher and requiring emergency abdominal surgery or surgical intervention for acute peritonitis should be closely monitored with appropriate treatment strategies. They noted that the DNI can assist in selecting high-risk patients and deciding on therapeutic modalities such as emergency surgery or intensive care unit treatment.

Kubat et al.[13]Immature granulocyte-lymphocyte ratio, neutrophil-to-platelet ratio (NPR), monocyte-lymphocyte and red blood cell distribution width-to-lymphocyte ratio (RDWLR), which have not been studied before in patients with acute appendicitis (AA) can be used to differentiate complicated and uncomplicated AA groups.[13]

In this study, there was a statistically significant difference between the AA groups, complicated and uncomplicated, in all hematological parameters (WBC, NLR, IGC, IG%). However, it was determined that the IG number was quite specific in the diagnosis of AA. In addition, all parameters are statistically significant when the groups are

compared. Each unit increase in the granulocyte count increases the probability of complication in appendicitis cases approximately 3333 times. The IG count was significant for OR and CI 95% complicated.

LIMITATIONS

This study had certain limitations. As it was a retrospective study, the available data were limited. The time from the onset of symptoms to admission to the hospital could not be evaluated. This time is likely to affect the values of inflammatory markers. Second, our population was selected at a tertiary hospital and is not representative of the entire population.

RESULTS:

Early diagnosis and treatment of acute complicated appendicitis is very important as it reduces postoperative morbidity rates and medical costs. IG is a new inflammatory marker that can be easily detected with a routine CBC without any additional time or cost. Based on the results of this study, it can be said that IGC is a more reliable predictor of AA than other hematological parameters in suspected acute appendicitis cases, and IG% is a more reliable predictor of acute complicated appendicitis.

REFERENCES

1. Khanapure S, Nagral S, Nanavati AJ. A study of events between the onset of symptoms and hospital admission in patients with acute abdomen. Natl Med J India. 2017;30(2):65-68.

2. Debnath J, Kumar R, Mathur A, Sharma P, Kumar N, Shridar N, et al. On the role of ultrasonography and CT scan in the diagnosis of acute appendicitis. Indian J Surg 2015;77:221–6.

3. Singh M, Kadian YS, Rattan KN, Jangra B. Complicated appendicitis: Analysis of risk factors in children. Afr J Paediatr Surg 2014;11:109–13.

4. Atema JJ, Gans SL, Beenen LF, Toorenvliet BR, Laurell H, Stoker J, et al. Accuracy of white blood cell count and C-reactive protein levels related to duration of symptoms in patients suspected of acute appendicitis. Acad Emerg Med 2015;22:1015–1024.

5. Lunca S, Bouras G, Romedea NS. Acute appendicitis in the elderly patient: diagnostic problems, prognostic factors and outcomes. Rom J Gastroenterol 2004;13:299–303.

6. Gronroos JM, Gronroos P. Leucocyte count and C-reactive protein in the diagnosis of acute appendicitis. Br J Surg. 1999; 86:501. [PubMed: 10215824]

7. Senthilnayagam B, Kumar T, Sukumaran J, M J, Rao KR. Automated measurement of immature granulocytes: performance characteristics and utility in routine clinical practice. Pathol Res Int 2012;2012:483670.

8.Ansari-Lari MA, Kickler TS, Borowitz MJ. Immature granulocyte measurement using the Sysmex XE-2100. Relationship to infection and sepsis. Am J Clin Pathol 2003;120:795–9.

7.Senthilnayagam B, Kumar T, Sukumaran J, M J, Rao KR. Automated measurement of immature granulocytes: performance characteristics and utility in routine clinical practice. Pathol Res Int 2012;2012:483670.

[9] Mathews EK, Griffin RL, Mortellaro V, Beierle EA, Harmon CM, Chen MK, Russell RT. Utility of immature granulocyte percentage in pediatric appendicitis. J Surg Res. 2014 Jul;190(1):230-4. doi: 10.1016/j.jss.2014.04.008. Epub 2014 Apr 12. PMID: 24793450; PMCID: PMC4277231.

[10] Ünal Y. A new and early marker in the diagnosis of acute complicated appendicitis: immature granulocytes. Ulus Travma Acil Cerrahi Derg. 2018 Sep;24(5):434-439. doi: 10.5505/tjtes.2018.91661. PMID: 30394497.

[11] Doğan M, Gürleyen B. The role of immature granulocyte in the early prediction of acute perforated and

nonperforated appendicitis in children. Ulus Travma Acil Cerrahi Derg. 2022 Mar;28(3):375-381. English. doi: 10.14744/tjtes.2021.41347. PMID: 35485560.

[12]Soh JS, Lim SW. Delta neutrophil index as a prognostic marker in emergent abdominal surgery. J Clin Lab Anal. 2019 Jul;33(6):e22895. doi: 10.1002/jcla.22895. Epub 2019 Apr 15. PMID: 30985959; PMCID: PMC6642298.

[13] Kubat M, Şengül S. Value of neutrophil-to-platelet ratio, immature granulocyte-to-lymphocyte ratio, red blood cell distribution width-to-lymphocyte ratio in differentiating complicated acute appendicitis. Ulus Travma Acil Cerrahi Derg. 2022 May;28(5):607-614. English. doi: 10.14744/tjtes.2022.30434. PMID: 35485466.

[9] Mathews EK, Griffin RL, Mortellaro V, Beierle EA, Harmon CM, Chen MK, Russell RT. Utility of immature granulocyte percentage in pediatric appendicitis. J Surg Res. 2014 Jul;190(1):230-4. doi: 10.1016/j.jss.2014.04.008. Epub 2014 Apr 12. PMID: 24793450; PMCID: PMC4277231.

[12]Soh JS, Lim SW. Delta neutrophil index as a prognostic marker in emergent abdominal surgery. J Clin Lab Anal. 2019 Jul;33(6):e22895. doi: 10.1002/jcla.22895. Epub 2019 Apr 15. PMID: 30985959; PMCID: PMC6642298.

[13] Kubat M, Şengül S. Value of neutrophil-to-platelet ratio, immature granulocyte-to-lymphocyte ratio, red blood cell distribution width-to-lymphocyte ratio in differentiating complicated acute appendicitis. Ulus Travma Acil Cerrahi Derg. 2022 May;28(5):607-614. English. doi: 10.14744/tjtes.2022.30434. PMID: 35485466.

Trauma-specific frailty index in geriatric trauma patients defined according to the old and new World Health Organization age classifications

Rümeysa Süt[1], Adem Az[1], Özgür Söğüt[1]

[1] University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Introduction

The purpose of this study was to compare the modified 15-variable trauma-specific frailty index (TSFI) with traditional injury scoring systems in determining trauma severity and predicting discharge disposition after acute trauma (within 24 h of trauma) in geriatric patients classified according to the old and new World Health Organization (WHO) classification.

Materials and Methods

This prospective, observational, single-center study included elderly patients with blunt trauma aged 65 years. Based on the old or new WHO age categorization, we divided senior patients into group I (aged 65-79 years) and group II (aged >80 years), respectively. At admission, we determined trauma severity using established injury rating systems (e.g., the Glasgow coma scale, injury severity score, and updated trauma score). We studied the associations between TFSI and standard injury assessment methods amongst patient categories.

Results

We enrolled 169 elderly individuals in our study (80 and 89 in groups I and II, respectively). The average score on the TFSI was substantially higher for females than it was for men ($p = 0.025$), and it was significantly higher for group II than it was for group I ($p = 0.021$). When looking at the TFSI and more traditional trauma scoring systems in both groups of participants, researchers found no significant relationships between the two groups of metrics. There was a statistically significant difference in the mean Trauma-Specific Frailty Index score between the hospitalized patients and the released patients in group I ($p=0.005$), while there was no significant difference in group II ($p=0.526$).

Conclusion

The most common causes of trauma in elderly patients are traffic accidents and falls. According to the findings of our study, the severity of frailty as well as the frequency of geriatric trauma are more common in females than in males. In addition, individuals over the age of 80 years old who were classified as elderly had higher TFSI scores than younger patients. When it came to directing therapy and predicting the discharge disposition in geriatric trauma patients aged 65-79 years old, the 15-variable TSFI score was found to be superior to the ISS score, the RTS score, and the GCS score.

Table 1. Patient demographic and clinical characteristics

	Group I		Group II	
Characteristics	**n**	**%**	**n**	**%**
Total (n=169)	81	47.92	88	52.07
Sex				
Male	37	45.68	31	35.23
Female	44	54.32	57	64.77
	Mean ± SD		**Mean ± SD**	
Age, years (mean ± SD, 79.20 ± 7.80)	72.20 ± 3.90		85.60 ± 4.10	
	n	**%**	**n**	**%**
Trauma mechanism				
Spontaneous fall (n=154)	71	42.01	83	49.11
Traffic accident (n=14)	9	5.32	5	2.95
Assault (n=1)	1	0.60	0	0.00
Clinical outcome				
Hospitalized (n=25)	25	14.79	32	18.93
Discharged (n=112)	56	33.14	56	33.14

Note: Group I: patients aged 65-79 years; Group II: aged ≥ 80 years

Table 2. Comparison of traditional trauma scores (ISS, RTS and GCS), and TSFI values between group I and group II patients

	Group I		Group II		
Trauma scores	**Mean ± SD**	**Max-Min**	**Mean ± SD**	**Max-Min**	**P-value***
ISS	5.41 ± 4.57	20-01	6.06 ± 6.69	48-01	0.807
RTS	7.77 ± 0.44	7.84-4.09	7.83 ± 0.10	7.84-6.9	0.149
GCS	14.95 ± 0.27	15-13	14.92 ± 0.48	15-11	0.934
TSFI	2.99 ± 2.74	11.25-0	3.82 ± 2.73	10-0	0.021

Abbreviation: ISS; Injury Severity Score, RTS; Revised Trauma Score, GCS; Glasgow Coma Scale, TSFI; Trauma-Specific Frailty Index

Group I: patients aged 65-79 years; Group II: aged ≥ 80 years.

Evaluation Of Cases Applying As Contact With Rabies Risk – Does Exposure Characteristics Change?

Mehmet Ceylan[1] , **Mustafa Ercan Günel**[2]

[1]Clinic of Infectious Diseases, İzmir Bakırçay University Çiğli Training and Research Hospital, İzmir, Turkey
[2]Emergency Medicine Clinic, İzmir Bakırçay University Çiğli Training and Research Hospital, İzmir, Turkey

Background and aim: Since rabies is a fatal disease in almost every case, prevention approaches are life-saving. Prophylaxis applied early and correctly is 100% effective. Although rabies cases have decreased in our country in recent years, there has been a significant increase in the number of rabies-risk contacts. Therefore, correct information and practice about post-exposure prophylaxis is important. In this article, patients who came to our center with an application for animal bite or trauma were evaluated in terms of demographic data, wound characteristics and the type of the attacking animal.

Methods: A questionnaire that we prepared for the patients who applied to our rabies vaccination outpatient clinic between January 15 and June 15, 2022, was filled and then examined.

Results: Questionnaire forms filled by 244 patients in total were evaluated. Demographic characteristics of the cases, the type of animals and the way the event occurred are presented in Table 1. Considering the ages of the cases defined as rabies risky contact, it was found that the mean age was 31.8±16 in dog exposures and 27.7±17.4 in cat exposures; It has been observed that a significant portion of cat contacts are under 18 years old (41%), while a significant part of dog contacts are over 18 years old (76%). Of the cat contacts, 56.4% were female and 43.6% were male, and the difference between genders was significant. On the other hand, 45.5% of the dog contacts were female and 54.5% were male, and the difference was not statistically significant.

Conclusions: It is noteworthy that most of the exposures occur after contact with cats, with the female gender making up a significant part of it. Especially in children under the age of 18, the increased exposure rate is associated with nurturing or loving behaviors. In addition, the fact that the vast majority of all attacks occur as a result of provocation by animals shows the importance of changing attitudes towards animals and raising awareness.

Keywords: post-exposure prophylaxis , rabies , vaccine

A Rare Cause of Chest Pain; Spontaneous Pneumomediastinum

Mehmet Necmeddin SUTAŞIR [1], Banu Arslan[1]

[1]*Department of Emergency Medicine, Başakşehir Çam and Sakura City Hospital, İstanbul/TR*

Abstract

Spontaneous pneumomediastinum is a rare clinical condition defined as the presence of free air in the mediastinum. Hereby, we present a 25-year-old female patient with chest pain, shortness of breath, and dysphagia. With this case, we aimed to emphasize that pneumomediastinum should be considered in the differential diagnosis of chest pain.

Keywords: Chest pain, Pneumomediastinum, Dysphagia, Dyspnea

Introduction:

Pneumomediastinum is the presence of air in the mediastinum that can be caused by perforation of the respiratory or digestive system organs [1]. Spontaneous pneumomediastinum develops in the absence of any surgical or medical procedure, chest trauma, or mechanical ventilation. It is a rare medical condition that usually occurs in young males and often tends to heal spontaneously. Clinical presentation can involve various signs and symptoms such as chest pain, dysphagia, and shortness of breath. Respiratory distress can be seen in patients with pneumothorax [1, 2]. Most cases are asymptomatic and detected incidentally. However, spontaneous pneumomediastinum can cause life-threatening complications. Therefore, it should exist in the differential diagnosis list of young males presenting with chest pain and shortness of breath. In these cases, even if the chest X-ray is normal, chest computed tomography (CT) should be taken in the presence of clinical suspicion [3,4].

We presented a spontaneous pneumomediastinum case admitted to our emergency department with chest pain, shortness of breath and dysphagia.

Case Presentation:

A 25-year-old female patient was admitted to our emergency department with chest pain, shortness of breath, difficulty swallowing, and a feeling of obstruction in the throat. The chest pain that was started two days ago was stabbing in character, traveled to the neck, and associated with breathing. The shortness of breath was mild, and dysphagia was precipitated with solid foods. She didn't report any chronic medical conditions. There was no history of trauma, recent surgical intervention, excessive exercise, coughing, vomiting, vigorously shouting, lifting heavy objects, using inhaler drugs, or substance abuse.

Vital signs at admission were blood pressure (BP); 120/70 mmHg, heart rate (HR); 12/min, oxygen saturation (SpO2); 94%, respiratory rate (RR); 16/min, temperature; 36,8°C. Physical examination was normal with no signs of crepitation suggestive of any subcutaneous emphysema. We didn't see any striking findings in complete blood count (CBC), basic metabolic panel (BMP), troponin levels, and lactate levels. They all came in a normal range.

Sinus tachycardia was present in electrocardiography (ECG). In the chest X-ray, the trachea was in the midline and there was no difference in aeration (Picture 1). Therefore, a non-contrast CT scan was performed (Figure 1). In the CT scan, free air images in the mediastinum extending from the extrathoracic trachea to the subcarinal area were detected (Figure 2).

Since the patient was medically stable and respiratory distress was mild, 2 l/min oxygen therapy through nasal cannula started in the emergency room. Later, the patient was admitted to the thoracic surgery department.

During the 3-day hospital stay, she had remained medically stable with no fever, tachypnea, or tachycardia. No antibiotics were administered. Follow-ups after the hospital discharge were scheduled.

Figure 1; Chest Xray

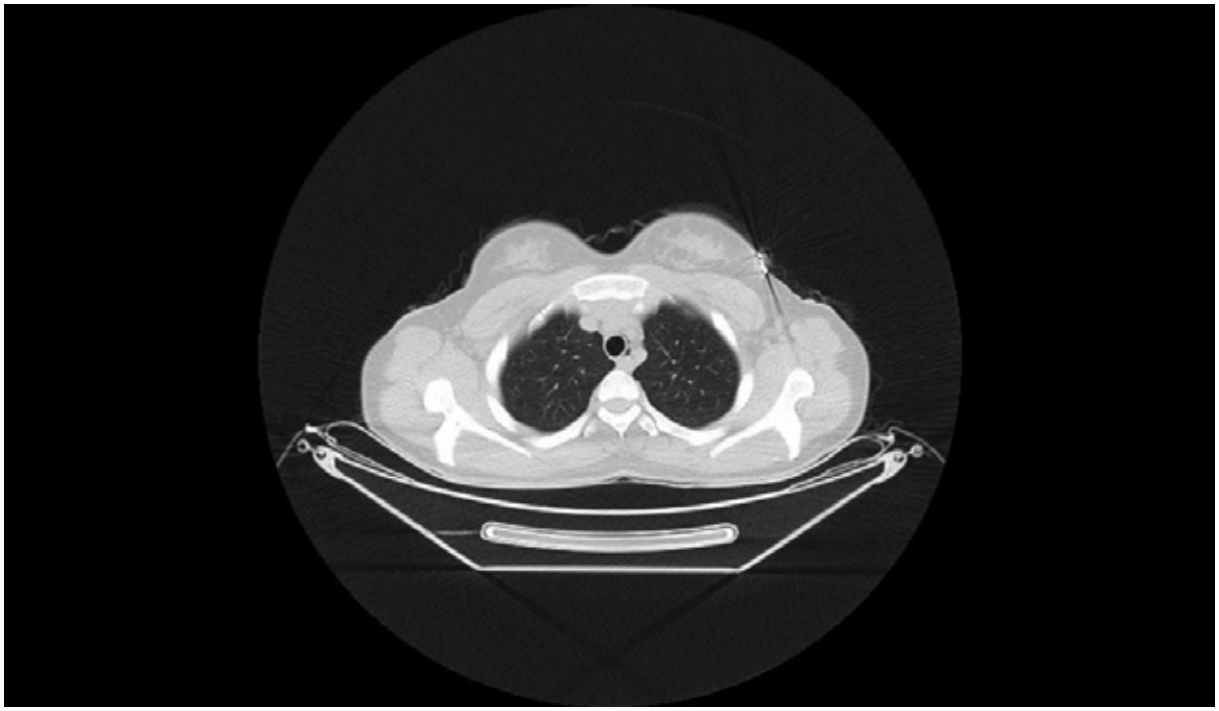


Figure 2; Free air images in the pulmonary parenchymal window of chest CT.

Discussion:

Pneumomediastinum can be defined as the presence of extra-alveolar air in the mediastinum [5]. Several studies conducted on adult patients revealed that spontaneous pneumomediastinum is predominantly seen in young males, smokers, and people with asthma [4]. The most common complaint is chest pain followed by shortness of breath, cough, neck pain, neck swelling, dysphagia, dysphonia, and anxiety [7]. Our patient reported stabbing chest pain, mild dyspnea, and dysphagia.

Pneumomediastinum can be diagnosed with posterior-anterior (PA) and lateral chest X-rays. However, up to 10% of pneumomediastinum cases are not detected by chest X-ray. In these cases, the role of chest CT became vital [8,9]. Chest CT also provides more detailed diagnostic information; therefore, it has become the gold standard in investigating unidentified chest pathologies [10,11]. The definitive diagnosis is made by detecting the free air in the mediastinum with chest CT. In the present case, free air was identified in the chest CT in the mediastinal and paratracheal areas. Spontaneous pneumomediastinum tends to be underreported due to its self-limiting nature. Although the incidence of spontaneous pneumomediastinum varies in the literature, it is estimated that the prevalence could be more than reported [12].

Pneumomediastinum can be complicated with compression of mediastinal structures and extensive subcutaneous emphysema resulting in upper airway obstruction. Missed or prolonged diagnosis has a significant impact on survival outcomes. Clinicians should maintain high index of suspicion in patient with unexplained chest pain, as the patient may develop life-threatening complications such as tension pneumothorax [13]. Other serious complications involve cardiac arrhythmias, myocardial infarction, and myocarditis. Mediastinal needle aspiration, mediastinotomy, tracheostomy, or thoracotomy may be required when cyanosis, increasing shortness of breath, arrhythmia, heart failure, or respiratory failure occur. If pneumomediastinum occurs secondary to tracheobronchial or esophageal rupture, emergency surgical intervention can be planned [2]. Patients with spontaneous pneumomediastinum are hospitalized and observed for at least 24 hours [14]. Supplemental oxygen and pain killer should be administered as needed. Our patient was hospitalized for three days to observe for any potential complications. In patients with spontaneous pneumomediastinum, upper airway obstruction is a rare but serious complication. It occurs when free air gets into the tissues under the skin and in the soft tissues of the neck. Upper airway obstruction requiring emergency tracheostomy was reported in the literature [14].

Patients with spontaneous pneumomediastinum should be monitored closely during the hospital stay. The treatment is usually conservative and supportive if there is no injury to the main bronchus or esophagus, and large source of air leakage from the lung tissue (such as a bulla or bleb). The conservative therapy involves bedrest, pain relief, antibiotics, and the avoidance of the Valsalva maneuver. Morbidity and mortality increase in the presence of mediastinal emphysema that is caused by esophageal rupture [3].

Conclusion:

Spontaneous pneumomediastinum is a rare medical condition with a benign course. On the other hand, life-threatening complications can develop. Spontaneous pneumomediastinum should always be in the differential diagnosis list in young males with stabbing chest pain, dyspnea, and dysphagia. Even though chest X-ray is normal, in case of a high index of suspicion chest CT should be performed.

Conflict of Interest

The authors report no conflict of interest in this work.

Animal and Human Rights Statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. No animal studies were carried out by the authors for this article.

Funding; None

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

References:

1. Çobanoğlu U, Melek M, Edirne Y. Toraks Travması Dışı Nedenlerle Meydana Gelen Pnömomediastinum Olguları. Solunum. 2009; 11(2): 66-74.

2. Abolnik I, Lossos IS, Breuer R. Spontaneous pneumomediastinum. A report of 25 cases. Chest 1991; 100:93-5.

3. Ralph-Edwards AC, Pearson FG. Atypical presentation of spontaneous pneumomediastinum. Ann Thorac Surg 1994;58(6):1758-60.

4. Altınok T, Ceran S. [Pneumomediastinum]. Türkiye Klinikleri J SurgMed Sci 2007;3(3):39-42.

5. . Chu CM, Leung YY, Hui JY, Hung IF, Chan VL, LeungWS,et al. Spontaneouspneumomediastinum in patientswith severeacuterespiratorysyndrome. EurRespir J 2004; 23:802-4.

6. Freixinet J, García F, Rodríguez PM, Santana NB, QuinteroCO, Hussein M. Spontaneouspneumomediastinumlong-termfollow-up. RespirMed 2005; 99:1160-3.

7. Mork T, Mutlu GM, Kuzniar TJ. Dysphoniaandchestpain as presentingsymptoms of pneumomediastinum. TuberkToraks. 2010;58: 184-7.

8. Fujiwara T. Pneumomediastinum in pulmonaryfibrosis. Detectionbycomputedtomography. Chest 1993; 104:44-6.

9. Kaneki T, Kubo K, Kawashima A, et al. Spontaneouspneumomediastinum in 33 patients: yield of chestcomputedtomographyforthediagnosis of themildtype. Respiration. 2000; 67:408-11.

10. Ho AS, Ahmed A, Huang JS, Menias CO, Bhalla S. MultidetectorComputedTomography of SpontaneousVersusSecondaryPneumomediastinum in 89 Patients: Can MultidetectorComputedTomography be UsedtoReliablyDistinguishBetweenthe 2 Entities?. J ThoracImaging 2012; 27:85-92.

11. Zylak C M, Standen JR, Barnes GR, Zylak CJ. PneumomediastinumRevisited. RadioGraphics 2000; 20:1043–1057.

12. Kaya H, Sezgi C, ŞenS, Abakay Ö, Tanrıkulu A, Şenyiğit A, ve ark. Turkiye Klinikleri Arch Lung 2013;14(1):17-21

13. Rim T, Bae JS, Yuk YS. Life-threateningSimultaneousBilateralSpontaneousTension Pneumothorax. Korean J ThoracCardiovascSurg 2011;44 (3):253-6.

14. Weissberg D, Weissberg D. Spontaneous mediastinal emphysema. Eur J Cardiothorac Surg 2004;26(5):885-8

Accuracy of the Smart Watch (Apple Watch Series 6) Oxygen Saturation Measurement in Patients with COPD Exacerbation; Comparison with Fingertip Pulse Oximetry.

And Arterial Blood Gas Test.

Banu Arslan[1], Kemal Sener[1], Ramazan Guven[1], Mucahit Kapci[1] ,Semih Korkut[1], Mehmet Necmettin Sutasir[1], *Mustafa Agah Tekindal*[2]

[1]Basaksehir Cam ve Sakura Sehir Hastanesi/ Department of Emergency Medicine

[2]İzmir Katip Çelebi University Faculty of Medicine/ Department of Biostatistics |

Abstract:

Background: Smartwatches have been gaining tremendous attention in recent years. Even though most of these devices aren't intended for medical diagnosis, it seems they have become widely accepted by patients. Various studies have examined the accuracy of these devices in controlled environment; however, no studies have been found studied in emergency patients.

Objective: In this study, we aimed to determine the accuracy of the reflectance pulse oximeter feature of the Apple Watch Series 6 in patients who presented with acute exacerbation of COPD by comparing it with a medical grade fingertip pulse oximeter and arterial blood gas analyses, the gold standard.

Methods: This is a single-center, prospective, and cross-sectional study conducted with adult patients who were admitted to the emergency medicine department with an acute exacerbation of COPD during the 1-year study period. Patients presented with cardiac arrest, life-threatening symptoms, patients who are severely hypoxic (Spo2 <70%), obviously icteric, pregnant, and have a tattoo on non-dominant wrist were excluded from the study. Vital signs and blood oxygen level and heart rate measurements with Apple watch were done simultaneously. Blood gas samples drawn by emergency medicine physicians.

Results: The data of 167 patients, 99 male (59.3%) and 68 female (40.7%), were analyzed. There was a strong correlation between Apple Watch 6 and medical grade pulse oximetry (r=0.89, ICC=0.940). The Bland- Altman analysis showed that the mean error was 0.458 between Apple Watch SpO2 and ABG-determined SaO2 (SD: 2.78, level of agreement: -5.912 to 4.996), and 1.015 between fingertip pulse oximeter SpO2 and ABG-determined SaO2 (SD: 5.086, level of agreement; -10.983 to 8.953). There is a correlation with respiratory rate and the number of attempts to measure Spo2 with Apple Watch 6 (r=0.75, p <0,05).

Discussion: Our results demonstrated that Apple Watch Series 6 measures the peripheral blood oxygen level accurately in emergency patients presented with COPD exacerbation. However, tachypneic patients may face a challenge in measuring their SpO_2 levels since it may require multiple attempts.

Conclusion: Even though Apple watch is a reliable and accurate method to measure SpO2 values, studies on this subject are still limited in number, and therefore, we recommend further research to be undertaken with different patient populations and larger samples.

Key Words: Apple Watch, COPD Exacerbation, pulse oximeter, wearables, smart watch

ABG: Arterial blood gas

AF: Atrial fibrillation

COPD: Chronic obstructive pulmonary disease.

CHF: Congestive heart failure

ED: Emergency Department

SpO2: Peripheral oxygen saturation

SaO2: Arterial oxygen saturation

SBP: Systolic blood pressure

DBP: Diastolic blood pressure

HR: Heart rate

HT: Hypertension

Pao2: Partial pressure of oxygen in the arterial blood

RR: Respiratory rate

VBG: Venous blood gas

INTRODUCTION

Chronic obstructive pulmonary disease (COPD) is a chronic, progressive health condition with high morbidity and mortality rates [1]. Despite worldwide health efforts, education, and prevention strategies, it is projected to be the 3rd leading cause of death by 2030 [2]. An acute exacerbation of COPD is characterized by acute worsening in airway functions and respiratory symptoms including dyspnea, cough, and/or sputum [3]. These patients can suffer from low oxygen saturation due to difficulty in gas exchange [4]. Without proper care, severe cases may progress to hypercapnic respiratory failure and require mechanical ventilation [5]. Literature suggests that frequent exacerbation episodes cause decreased lung function, reduced quality of life, a high number of hospital admissions, and increased health care costs [6].

Acute exacerbation of COPD can be predicted by closely monitoring the patient's pulse rate, oxygen saturation, and respiratory rate. Oxygen saturation was reported as the most predictive vital sign [7,8]. It is shown that COPD patients with worsening symptoms have a lower mean for oxygen saturation [7]. Uncorrected chronic hypoxemia, itself, has been found to be associated with adverse sequelae of COPD and disease progression [9]. From this perspective, closely monitoring oxygen saturation levels in COPD patients is vital not only for preventing acute exacerbation of COPD events by predicting it early but also for slowing disease progression.

The gold standard for the measurement of oxygen saturation (SaO2) is arterial blood gas (ABG) analyses [10]. This invasive procedure requires expertise, consumes time, and can be very painful. However, it provides the best clues to determine the severity of disease exacerbation. On the other hand, a pulse oximeter using spectrophotometric methodology provides non-invasive, low-cost, and continuous measurement of peripheral blood oxygen saturation (SpO2). Pulse oximetry measures oxygen saturation by shining two light wavelengths: 660 nm (red) and 940 nm (infrared) through tissue. Then, it measures changes in the light absorption of oxygenated and deoxygenated blood and displays a value [11]. Depending on the position of the sensor and detector, there are two modes in the pulse oximeter: transmissive mode and reflective mode. In transmissive mode, the sensor and detector are positioned on opposite sides, and light passes through the measurement site. In reflective mode the sensor and detector are located on the same side and light is reflected by the detector across the measurement site [12]. The transmissive pulse oximeter has become the standard practice in monitoring oxygen levels in both inpatient and outpatient settings for its high accuracy and stability [12]. On the other hand, the demand for smartwatches using reflective mode in measuring SpO2 levels has been increasing worldwide. It is estimated that there are 100 million Apple Watches in use currently [13]. Apple Watch 6 has a new sensor consisting of four LED clusters and four photodiodes. It shines red and near-infrared (IR) light into the blood vessels under the

application site, and photodiodes measure the amount of light reflected [14].

In this study, we aimed to evaluate the accuracy of the Apple Watch 6's (Apple Inc, Cupertino, CA, USA) reflectance pulse oximetry in patients with COPD exacerbation by comparing it with blood gas analyses and medical-grade fingertip pulse oximeter.

MATERIAL AND METHOD:

Study Approval: The present research was approved by the Ethics and Research Committee of the Basaksehir Cam and Sakura City Hospital. The registration number is 2021.03.3. Apple was not involved in the design, implementation, data analysis, or manuscript preparation of the study. All methods were performed in accordance with the relevant guidelines and regulations.

Study Design: This is a single-center, prospective, and cross-sectional study conducted with adult patients who were admitted to the emergency medicine department with an acute exacerbation of COPD. The study was carried on between April 15th, 2021, and April 15th, 2022. Written informed consent was obtained from all patients or their next of kin before the measurements. We recruited study participants older than 18 years. Patients who were presented with cardiac arrest, severely hypoxic (Spo2 <70%), obviously icteric, pregnant, and have a tattoo on the non-dominant wrist were excluded from the study. Patients for whom oxygen saturation measurements with Apple Watch took more than 2 minutes or eight attempts were also added to the exclusion criteria.

Data Collection: Age, gender, height, weight, systolic blood pressure (SBP), diastolic blood pressure (DBP), heart rate (HR), respiratory rate (RR), body temperature, and SpO2 with a fingertip pulse oximeter, ABG results including SaO2, partial pressure of oxygen (PaO2) and partial pressure of carbon dioxide (PCO2), SpO2 with Apple Watch, HR with Apple Watch, number of attempts to measure SpO2 with Apple Watch, presence of atrial fibrillation (AF) and chronic medical conditions were collected in this study.

Emergency staff was trained to measure SpO2 and HR by using the Apple Watch before the study began. Two Apple Watches Series 6, both 40 mm, were used in the study. Vital signs were taken by using The IntelliVue MX500 (Philips, Boeblingen, Germany) with Masimo Rainbow Set pulse oximeter (Masimo, Irvine, CA, USA). Arterial blood gases were drawn only by emergency medicine physicians. The height, weight, and history of chronic medical conditions were noted based on the patient's statement. If it is necessary, the patient's electronic medical record was also checked.

After patients checked in to the emergency room, they were seated on a bed. While vital signs (SBP, DBP, body temperature, and RR) were taken, patients were informed about the study and written informed consent was obtained. At the same time, the non-dominated arm was placed rest on a table at the height of the heart and held steady. The fingertip pulse oximeter was placed on the index finger and the Apple Watch properly fitted the same wrist. By the time the Apple Watch 6 finished the blood oxygen reading and displayed a value, the SpO2 value on the fingertip pulse oximeter was recorded. If the SpO2 level could not be measured within two minutes or in 8 attempts, the patient was excluded from the study. Simultaneously, a blood gas sample was taken from the opposite wrist. Then, the Heart Rate app on the Apple Watch was opened. The HR value seen on the app and the value seen on the IntelliVue MX500 monitor were recorded.

Statistical analysis.

Two-way random intra-class correlation coefficients (ICC) with absolute agreement and Pearson correlations with 95% confidence intervals were used to summarize the relationship SpO_2 levels measured by fingertip pulse oximeter with SpO_2 levels measured by Apple Watch 6.

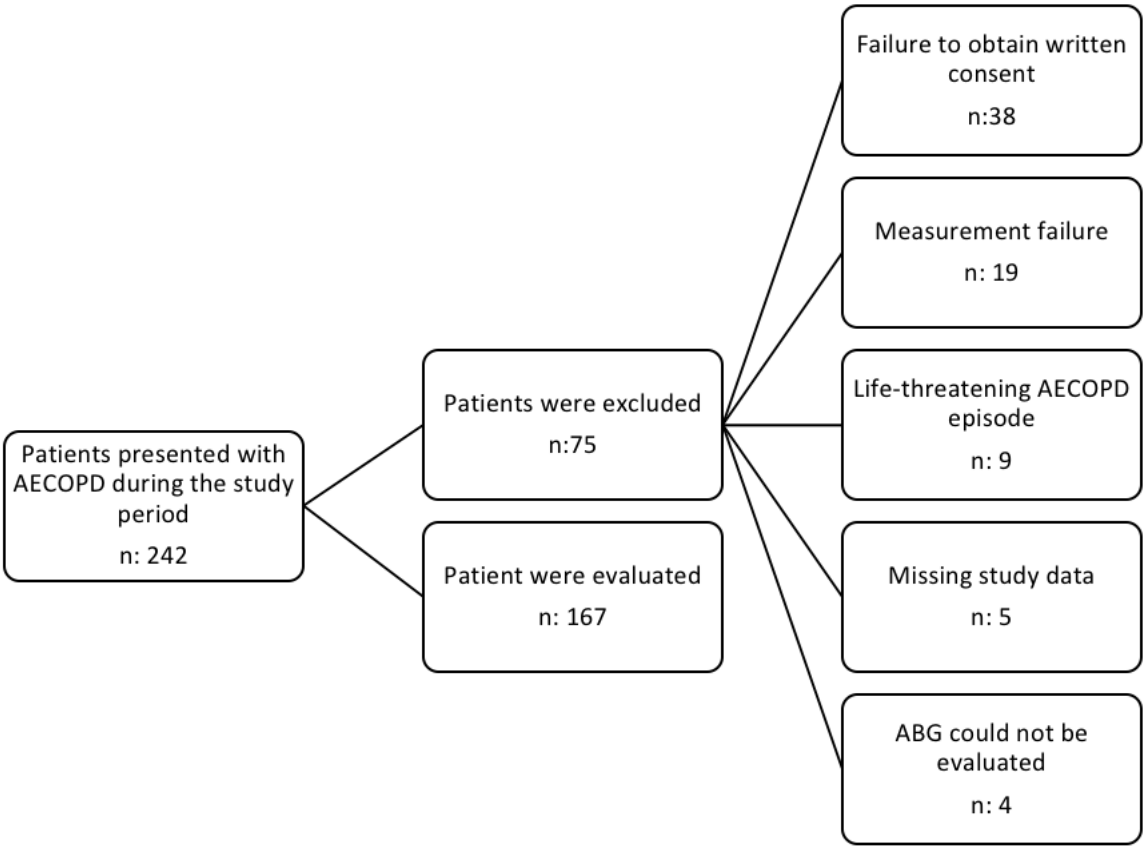
The primary analysis was performed using the techniques describe by Bland and Altman. Bias and the limits of agreement were calculated. Bias, or systematic error, is determined by the mean difference between SaO_2 and SpO_2, whereas precision, or random error, is determined by the standard deviation of the mean difference. Positi-

ve bias means that pulse oximetry overestimates SaO_2 and negative bias means that it is underestimated. A *P*-value of ≤ 0.05 was considered statistically significant.

RESULTS:

Study Population: A total of 242 patients presented with acute exacerbation of COPD during the yearlong study. 38 patients were excluded for failure to obtain written consent. 9 patients presented with life-threatening COPD flare-ups. ABG couldn't be drawn or came as venous blood gas (VBG) in 4 patients in the first attempt. 19 patients were excluded from the study due to more than 8 failed measurements. 5 patients were excluded due to missing study data such as height, weight, or body temperature. Finally, a total of 167 patients were evaluated (Figure 1).

Figure 1. Patient inclusion flowchart detailing inclusion and exclusion criteria.



Baseline Characteristics: This study involved 68 female (40.7%) and 99 male (59.3%) patients with an AECOPD. Participants' ages ranged from 34 years to 94 years with the mean age being 70.96 (±11.51). Of the 167 patients, 135 (80.8%) reported having at least one comorbidity. The most prevalent comorbidity was hypertension (HT) (30.7%), followed by diabetes mellitus (DM) (21.3%), atrial fibrillation (18%), congestive heart failure (CHF) (12.5%), coronary artery disease (CAD) (11.8%), malignancy (5.9%), chronic renal failure (CRF) (4.9%) and cerebrovascular accident (CVA) (2.1%). The number of attempts to measure Spo2 levels with Apple Watch 6 ranged between 1 to 8. The mean ± SD for the number of attempts was 1.98 ± 1.60. The study population is described in Table 1.

Table 1. Summary of patient characteristics

Characteristics		Mean	Std. Deviation
Age		70.96	11.51
Height (cm)		166.29	9.75
Weight (kg)		79.25	20.33
SBP		130.98	27.00
DBP		77.26	17.44
RR		24.04	5.33
Temperature (°C)		36.23	0.44
SaO_2 (%)		88.63	9.01
PaO_2 (mmHg)		70.70	28.72
$PaCO_2$ (mmHg)		45.19	13.12
Number of attempts		1.98	1.60
		n	%
Sex	Male	99	59.3
	Female	68	40.7
Atrial Fibrillation	Present	30	18.0
	Absent	137	82.0
Comorbidity	Present	135	80.8
	Absent	32	19.2
CHF		36	12.5
HT		88	30.7
DM		61	21.3
CRF		14	4.9
CAD		34	11.8
Malignancy		17	5.9
CVA		6	2.1
Others		31	10.8

Agreement between devices: The mean ± SD for SaO_2 was 88.63% ± 9.01%. The mean ± SD for SpO2 levels measured by fingertip pulse oximetry was 89.83% ± 7.34% and Apple Watch 6 was 89.21% ± 7.90%. Based on the mean difference between the Apple Watch 6 and the fingertip pulse oximetry, there was no statistical difference in SpO_2 measurements (t=2.125, p=0.03) (Table 2).

Table 2. The mean SpO2 levels measured with fingertip pulse oximeter and Apple Watch 6

	Fingertip Pulse Oximeter		Apple's Pulse Oximeter				t	p
	Mean	**SD**	**Mean**	**SD**	r	ICC		
SpO_2 (%)	89.83	7.34	89.21	7.90	**0.89**	**0.94**	**2.125**	**0.030**

The two-way random-effect model for interclass correlation showed a strong correlation between SaO2 values and SpO2 measured by Apple Watch 6 (r=0.89, ICC=0.940) and fingertip pulse oximeter (r=0.99, ICC=0.994) (Figure 2). However, further analysis indicated that there was a statistically significant difference between SaO2 and SpO2 measured by medical-grade fingertip pulse oximeter (t=0.558, p=0.722) (Figure 3). The mean difference between SPO2 (Apple Watch 6) and SaO2 was 0.46% and the standard deviation (SD) of the difference was 2.78%. The mean difference between SpO2 (Fingertip Pulse Oximeter) and SaO2 was 1.01% and the standard deviation of difference was 5.08% (Table 3).

Bland-Altman analysis showing the relationship of SaO2 levels with SpO2 levels is displayed in Figure 4. In ad-

dition, there was a positive moderate correlation between the number of attempts to measure SpO2 levels with Apple Watch 6 and respiratory rate (r=0.75, p<0,05). We didn't observe a statistical relationship between the number of attempts to measure SpO2 levels and age, BP, HR, SaO2, SpO2 levels, the presence of atrial fibrillation, and the number of comorbidities (p>0.05).

Figure 2. Scatterplot of $Sa0_2$ and SpO_2 levels

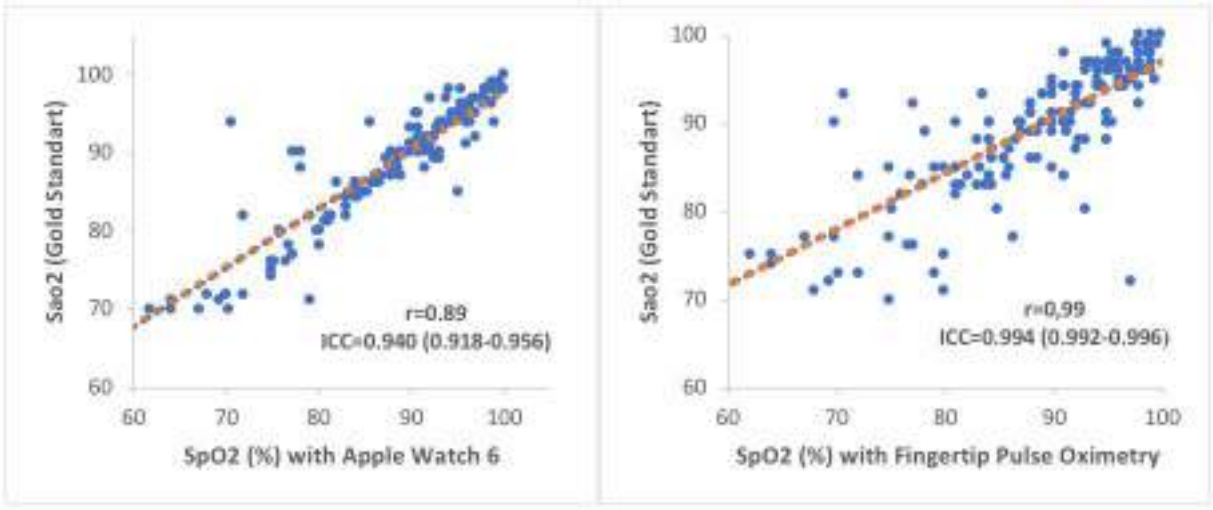


Figure 3. Boxplot of $Sa0_2$ and SpO_2 levels

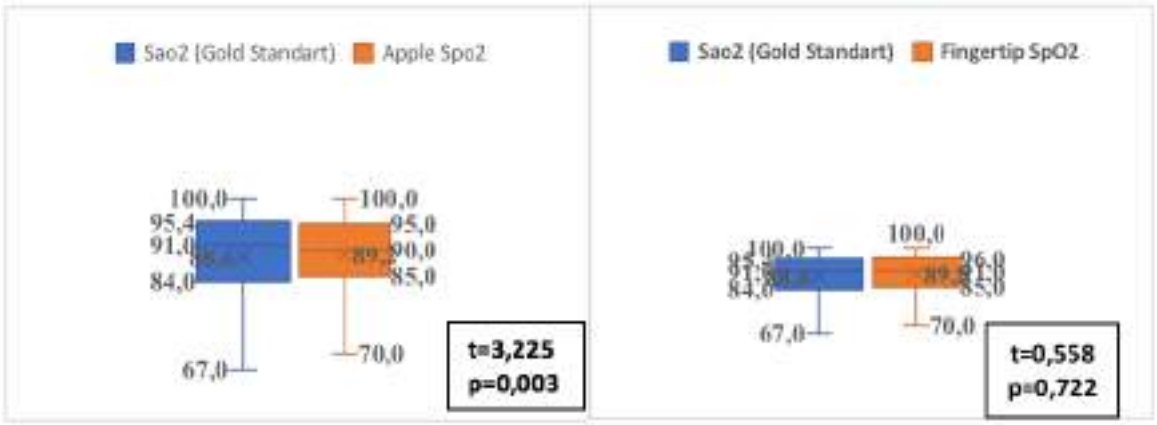
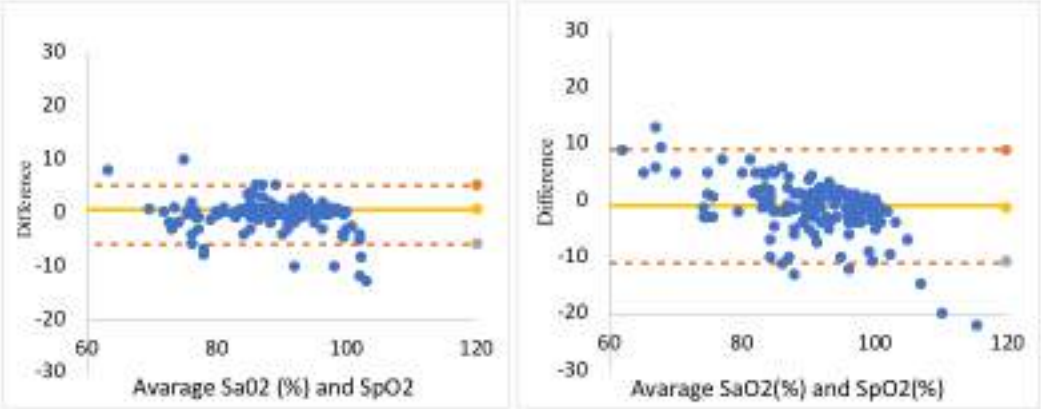


Table 3. Bland-Altman Agreement Analysis

Method	Bias (Mean Difference)	SD	Level of Agreement
Apple Watch 6	0.46	2.78	-5.91 to 4.99
Fingertip Pulse Oximeter	1.01	5.08	-10.98 to 8.95

Figure 4a. Bland-Altman plot for bias and limits of agreement between SaO2 and SpO2 measured by Apple Watch 6. Figure 4b. Bland-Altman plot for bias and limits of agreement between SaO2 and SpO2 measured by fingertip pulse oximeter



DISCUSSION

There is a wide variety of medical and commercially available devices tracking health parameters in the market. Smartwatches have attracted a vast amount of attention over the last few years for their capability of measuring BP, HR, SpO2 levels, and body temperature outside the clinic and in-home care. With the electrocardiogram (ECG) feature, these devices may provide great value to patient care and population health in terms of detecting health disorders early and having patients seek medical services. However, in the medical literature, there is little data on the accuracy of these devices. Especially emergency patients have not been studied yet.

The noninvasive monitoring of SpO2 levels can deliver great value to the care of COPD patients in terms of predicting acute flares in advance and seeking treatment early. In this study, we evaluated the accuracy of Apple Watch 6's reflectance pulse oximetry technology in the acute exacerbation of COPD patients. We compared Apple Watch 6's pulse oximetry with medical grade fingertip pulse oximetry and the ABG which is the gold standard. The major result of our study is that Apple Watch 6 provides very accurate SpO2 values in patients who were admitted to the emergency department with acute exacerbation of COPD.

We observed a strong correlation between Apple Watch 6's reflectance pulse oximetry and the medical-grade fingertip pulse oximetry in the evaluation of SpO2 (r=0.89). Recently, Pipek et al. compared SpO2 values on Apple Watch 6 and commercial oximeter devices in patients with lung disease and reported similar results to our study (r=0.81, p<0.001) [15]. Spaccarotella C. et al. assessed 257 subjects' SpO2 levels and demonstrated that the smartwatch and the standard commercial device were strongly correlated (r=0.89, p<0.001) [16]. Both studies corroborate our study.

According to our best knowledge, this is the first study comparing SpO2 values measured by Apple Watch 6's reflectance pulse oximetry with ABG-determined SaO2. When we analyzed our data, we found a strong correlation between SpO2 measured by Apple Watch 6 and ABG-determined SaO2 (r=0.89) with no statistical difference (t=3.225, p=0.003). On the other hand, although the Pearson coefficient indicated a strong correlation between the medical-grade pulse oximetry and ABG-determined SaO2 (r=0.99), further analysis indicated that there was a statistically significant difference (t=0.558, p=0.722).

Our Bland-Altman analysis demonstrated that there was a very good agreement between Apple Watch 6 and ABG in evaluating blood oxygen levels (bias=0.46%, level of agreement= -5.91 to 4.99). The difference can be considered clinically nonsignificant. On the other hand, the medical-grade pulse oximetry overestimated the blood oxygen levels by 1% (bias=1.01, level of agreement=-10.98 to 8.95). Based on the mean differences between the two devices, the fingertip pulse oximetry tends to have higher SpO2 levels than the Apple Watch's reflectance

pulse oximeter.

The medical literature has revealed mixed results regarding the accuracy of pulse oximetry. Hermand E. et al. concluded that the Garmin Forerunner 245 smartwatch was not reliable compared to medical-grade oximeters (21). However, Lauterbach CJ demonstrated that the Garmin Fenix® watch may be a viable way to measure SpO2 values under most ambient environmental conditions [22]. These controversial results may be attributed to that these studies were done other than with Apple Watch 6 and didn't include ED patients.

Some studies have demonstrated that SpO2 has underestimated SaO2 [17,18], others reported the opposite. Wilson BJ et al. reported that pulse oximeters overestimated SaO2 levels by a mean of 2.75% in critically ill ED patients [19]. Similarly, Amalakanti S. et al. have revealed that pulse oximetry overestimated oxygen saturation in COPD with the bias being 3.98% [20]. Our Bland-Altman analysis indicated no clinical difference between Apple Watch 6 and ABG in measuring blood oxygen saturation. These mixed results may be caused by several factors such as using different pulse oximeters and the wide range of severity of illnesses and patient populations.

Another significant result of our study was that the number of attempts to measure SpO2 with Apple Watch 6 was correlated with the respiratory rate ($r=0.75$, $p<0,05$). This may be attributed to tachypneic patients may experience challenges to keep their wrists still.

There are several limitations to our study. First, we conducted the current study with two Apple Watches. Using one brand may limit the study in terms of generalizing our observations to other brands because different smartwatches may show different performances [21,22]. Second, these watches were belonged to our ED physicians and had been used outside of hospital settings during the study period. We are not sure if this may have influenced our results significantly. The third point of concern might be we only used the Masimo Rainbow Set® pulse oximetry. However, Louie et al. reported that Philips, Masimo, and Nelcor's pulse oximeters provided similar results regarding hypoxemia detection.

CONCLUSION

Apple Watch 6 is an accurate and reliable method to measure SpO_2 levels in patients with acute exacerbation of COPD, however, tachypneic patients may face a challenge in measuring their SpO2 levels promptly. Studies on this subject are limited in number, and therefore, we recommend further research to be undertaken with different patient populations and larger samples.

References

1. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive lung disease. Updated 2019. [Accessed 25 Aug 2022]. Available from URL: https://goldcopd.org/wp-content/uploads/2018/11/GOLD-2019-v1.7-FINAL-14Nov2018-WMS.pdf
2. *World Health Organization.* 2019. [2018-11-13]. Chronic obstructive pulmonary disease (COPD) http://www.who.int/respiratory/copd/en/ *webcite*.
3. Rabe KF, Hurd S, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of COPD—2006 Update. Am J Respir Crit Care Med 2007; published online May 16. DOI: 10.1164/rccm.200703-456SO.
4. *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease: 2019 Report.* Fontana, WI: Global Initiative for Chronic Obstructive Lung Disease (GOLD); 2019. [2019-04-16]. https://goldcopd.org/wp-content/uploads/2018/11/GOLD-2019-v1.7-FINAL- 14Nov2018-WMS.pdf *webcite*. [PubMed: 17507545]
5. MacIntyre N, Huang YC. Acute exacerbations and respiratory failure in chronic obstructive pulmonary disease. Proc Am Thorac Soc. 2008 May 1;5(4):530-5. doi: 10.1513/pats.200707-088ET. PMID: 18453367;

PMCID: PMC2645331.

6. Pauwels R, Calverley P, Buist AS, Rennard S, Fukuchi Y, Stahl E, Löfdahl CG. COPD exacerbations: the importance of a standard definition. Respir Med. 2004 Feb;98(2):99-107. doi: 10.1016/j.rmed.2003.09.001. PMID: 14971871.

7. Shah SA, Velardo C, Farmer A, Tarassenko L. Exacerbations in Chronic Obstructive Pulmonary Disease: Identification and Prediction Using a Digital Health System. J Med Internet Res. 2017 Mar 7;19(3):e69. doi: 10.2196/jmir.7207. PMID: 28270380; PMCID: PMC5360891.

8. Pedone C, Chiurco D, Scarlata S, Incalzi RA. Efficacy of multiparametric telemonitoring on respiratory outcomes in elderly people with COPD: a randomized controlled trial. BMC Health Serv Res. 2013 Mar 6;13:82. doi: 10.1186/1472-6963-13-82. PMID: 23497109; PMCID: PMC3680224.

9. Kent BD, Mitchell PD, McNicholas WT. Hypoxemia in patients with COPD: cause, effects, and disease progression. Int J Chron Obstruct Pulmon Dis. 2011;6:199-208. doi: 10.2147/COPD.S10611. Epub 2011 Mar 14. PMID: 21660297; PMCID: PMC3107696.

10. Plüddemann A, Thompson M, Heneghan C, Price C. Pulse oximetry in primary care: primary care diagnostic technology update. Br J Gen Pract. 2011 May;61(586):358-9. doi: 10.3399/bjgp11X572553. PMID: 21619771; PMCID: PMC3080222.

11. Jubran A. Pulse oximetry. Crit Care. 1999;3(2):R11-R17. doi: 10.1186/cc341. PMID: 11094477; PMCID: PMC137227.

12. Hooseok Lee, Hoon Ko, Jinseok Lee,. Reflectance pulse oximetry: Practical issues and limitations. ICT Express,Volume 2, Issue 4, 2016, Pages 195-198, ISSN 2405-9595. https://doi.org/10.1016/j.icte.2016.10.004.

13. Macworld.co.uk. [(accessed on 6 November 2022)]. Available online: https://www.macworld.co.uk/news/how-many-apple-watches-sold-3801687/

14. Apple.com. [(accessed on 6 November 2022)]. https://www.apple.com/healthcare/docs/site/Blood_Oxygen_app_on_Apple_Watch_October_2022.pdf

15. Pipek LZ, Nascimento RFV, Acencio MMP, Teixeira LR. Comparison of SpO_2 and heart rate values on Apple Watch and conventional commercial oximeters devices in patients with lung disease. Sci Rep. 2021 Sep 23;11(1):18901. doi: 10.1038/s41598-021-98453-3. PMID: 34556765; PMCID: PMC8460792.

16. Spaccarotella C, Polimeni A, Mancuso C, Pelaia G, Esposito G, Indolfi C. Assessment of Non-Invasive Measurements of Oxygen Saturation and Heart Rate with an Apple Smartwatch: Comparison with a Standard Pulse Oximeter. J Clin Med. 2022 Mar 8;11(6):1467. doi: 10.3390/jcm11061467. PMID: 35329793; PMCID: PMC8951323.

17. Louw A Van de, Cracco C, Cerf C, Harf A, Duvaldestin P, Lemaire F, Brochard L. Accuracy of pulse oximetry in the intensive care unit. Intensive Care Med. 2001;**27**(10):1606–1613. doi: 10.1007/s001340101064.

18. Perkins GD, McAuley DF, Giles S, Routledge H, Gao F. Do changes in pulse oximeter oxygen saturation predict equivalent changes in arterial oxygen saturation? Crit Care. 2003;**7**(4):R67. doi: 10.1186/cc2339.

19. Wilson BJ, Cowan HJ, Lord JA, Zuege DJ, Zygun DA. The accuracy of pulse oximetry in emergency department patients with severe sepsis and septic shock: a retrospective cohort study. BMC Emerg Med. 2010 May 5;10:9. doi: 10.1186/1471-227X-10-9. PMID: 20444248; PMCID: PMC2876142.

20. Amalakanti S, Pentakota MR. Pulse Oximetry Overestimates Oxygen Saturation in COPD. Respir Care. 2016 Apr;61(4):423-7. doi: 10.4187/respcare.04435. Epub 2015 Dec 29. PMID: 26715772.

21. Hermand E, Coll C, Richalet J-P, et al. Accuracy and reliability of pulse O2 saturation measured by a wrist-worn oximeter. Int J Sports Med 2021; 42: 1268–1273.

22. Lauterbach CJ, Romano PA, Greisler LA, Brindle RA, Ford KR, Kuennen MR. Accuracy and Reliability of Commercial Wrist-Worn Pulse Oximeter During Normobaric Hypoxia Exposure Under Resting Conditions. Res Q Exerc Sport. 2021 Sep;92(3):549-558. doi: 10.1080/02701367.2020.1759768. Epub 2020 Jul 7. PMID: 32633688.

GASTRIC PERFORATION DUE TO SUICIDAL ORAL MURIATIC ACID IN TAKE MAY CAUSE DEATH

Yasin Ökten

Background and aim: Caustic ingestion can cause serious, life-threatenin gproblems. Contact with caustic substances isusually suicidal in adults and accidental exposurein children. Solids damage the mouth, liquids damage the esophagus and stomach. Alkal is cause deep burn and liquefaction necrosis. Acids, on the other hand,cause superficial burns and coagulation necrosis,but since their viscosityis less,they quickly pass into the stomach and cause gastric outlet burns.Common sequelae in clude upper gastrointestinal tract stricture formation,gastrointestinal tract perforation,and bleeding.Systemic effects such as disseminated intravascular coagulation,multi-organfailure and sepsis may also occur.The goldstandard to determine the extent of the lesionis esophagogastroduodenoscopy performed with in the first 12-24 hours after corrosive ingestion. Inducing vomiting,nasogastric insertion and neutralizing agents are contraindicated. Esophagogastroscopy was performedand the esophaguswasenteredunderdirectvision.

Case: A43-year-old male patient has known alcoholic cirrhosis and psychiatric disorders.Heapplied to our emergency clinic with complaints of abdominal pain and vomiting. General condition is moderate,consciousness is clear,orientation and cooperation are weak.TA:130/80,HR:88, SPO2:97There is widespread tenderness and defense on abdominal examination,norebound, normal brown stool smear on rectal examination.In his anamnesis,it was learned that he drank mauritic acid for suicide.WBC atadmission:27000,CRP:4.6 Lactate:0.9 Intraabdominal free fluid in the pelvis is found in the abdominal CT. The patient's oral in take was stopped,PPI and IV hydration were started,and he was admitted to the general surgery service for esophagogastroscopy. There were necrotic and occasionallygray-whiteplaquesontheentire pharynx, esophagus and as far as can be seen stomach surface from the oral cavity.

Conclusions: After the ingestion of caustic substance, necrotic reaction develops in the gastrointestinal are aswhere the substance comes into contact. Oral ingestion of caustic substances can cause organ perforation and death by causing stomach in volvement, as seen in this case.

References

- Kaplan M, Ödemiş B, Dişibeyaz S. et al. Experience of endoscopy in patients with gastrointestinal stenosis after caustic ingestion. Endoscopy Gastrointestinal 2019; 27:85-88.
- Bonnici KS, Wood DM, Dargan PI. Should computerized tomography replace endoscopy in the evaluation of symptomatic ingestion of corrosive substances? Clin Toxicol. 2014; 52(9):911–925.

Thyrotoxic Hypokalemic Periodic Paralysis

İzzet Ustaalioğlu[1]

[1]Kartal Dr. Lütfi Kırdar City Hospital

Background and aim: Thyrotoxic periodic paralysis (TPP) is a table characterized by thyrotoxicosis, hypokalemia and acute proximal muscle weakness. In this case, we aimed to present a patient diagnosed with thyrotoxic hypokalemic periodic paralysis by applying to the emergency department.

Case: A 54-years-old female patient was admitted to the emergency department with a sudden onset of weakness in the arms and legs. In her anamnesis, she was examined at the outer center, where she had similar complaints, and was said to have a lack of potassium. She did not describe any recent infections. She had hypertension and was using 10 mg of lercanidipine as a medicine. There was no feature in her family history. Vital signs in emergency application were as; fever: 37.2 °C, BP: 122/74 mmHg, heart rate: 84/min and sO2: 99% respiratory rate: 12 / min. In her physical examination; there was motor deficit in both the lower and upper extremities. Deep tendon reflexes could not be obtained. There was no sense defect. Other system examinations were normal. The patient's EKG revealed normal sinus rhythm and U wave in anterior leads. In laboratory tests, leukocyte: 9,600/mm3, creatinine: 1.16 mg / dl (0.75-1.25 mg/dl) Blood urea nitrogen: 8 mg / dl (8.9-20.6 mg/dl) TSH 0.0620 IU/ml (0.35 - 4.94 IU/ml) Free T3: 3.76 (1.71 - 3.71 pg/mL) Free T4: 1.23 (0.7 -1.48 ng / dL). KCL infusion was started as a treatment for the patient. Dramatic response was received after treatment. T negativity in ECG improved after treatment. The patient was hospitalized by the internal medicine clinic for the diagnosis and treatment of thyrotoxic hypokalemic periodic paralysis.

Conclusions: In thyrotoxicosis, due to the increased sensitivity to catecholamines, beta adrenergic blocker application decreases the number and severity of attacks, and in some cases causes a decrease in plasma K concentration. Thyroid hormones increase Na-K-ATPase activity, causing K to enter the cell. Diagnosis in patients with hypokalemic periodic paralysis; family history is determined by the absence of another reason, rapid normalization of serum K and regression of symptoms after application of K. Thyroid function tests should also be examined in those without a family history.

Keywords: endocrine emergencies , paralysis , thyrotoxicosis

EVALUATION OF A MULTI-TRAUMA PATIENT WHO HAD MASSIVE TRANSFUSION IN THE OPERATİNG ROOM

Ummahan Dalkılınç Hökenek[1], Rohat Ak[2]

[1]Department of Anesthesiology and Reanimation, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey

[2]Department of Emergency Medicine, Kartal Dr. Lütfi Kırdar City Hospital, İstanbul, Turkey

Introduction

Acute blood loss in the context of trauma is a life-threatening situation. Massive transfusion (MT) is typically described as the transfusion of 10 or more packed red blood cells (PRBCs) within 24 hours with the purpose of limiting complications and essential hypoperfusion while surgical hemostasis is being established [1]. In this case report, we will discuss the care of a multitraumatized patient admitted to the emergency department.

Case report

A 28-year-old male patient was brought to the emergency department due to gunshot and beating. On arrival, the patient had a BP: 70/40 mmHg, HR: 138 per/minute, agitated appearance. In the primary examination of the patient, a bullet hole in the lateral aspect of the left femur, and tenderness in the abdomen and pelvis were detected. While there was a fracture in the ramus pubis was observed in the pelvis X-ray. In the bedside FAST ultrasonography examination, diffuse fluid was observed in the morison pouch and around the bladder. The patient was taken to the operating room. At the operating room, BP:85/50 mmHg, HR:130 per/minute SpO2:95%. Massive hemoperitoneum and liver laceration was detected. Massive blood transfusion protocol was applied from the moment the patient was diagnosed with massive hematoperitoneum. Intraoperative 4 units of RBC, 4 units of FFP, 6 units of thrombocyte suspension were transfused. The patient, whose bleeding was controlled by performing lobectomy due to liver laceration, was admitted to the postoperative ICU. In the controls performed for close postoperative bleeding follow-up, decrease in HCT was associated with pelvic fracture and the transfusion protocol was continued. Tissue perfusion was preserved in the patient who received 8 units of RBC, 8 units of FFP, 12 units of thrombocyte suspension, and 4 grams of fibrinogen within 24 hours perioperatively. Blood transfusion and shock-related organ damage were not observed in the patient who was extubated after 48 hours postoperatively. The patient was discharged after being followed in the service for 10 days.

Discussion

Utilization of a Massive Transfusion Protocol is essential for the survival of trauma patients who are bleeding. Additionally, early beginning of an MTP and quicker product delivery are related with fewer organ failure.

References

1.Clinical practice guideline: red blood cell transfusion in adult trauma and critical care

Crit Care Med, 37 (12) (2009), pp. 3124-3157

J.L. Carson, *et al.*

Early Bogota bag application as a simple method to prevent imminent abdominal compartment syndrome in neonatal and pediatric groups: our experience in limited resource areas in North of Syria

Ahmet Haydari[2], Mehmet Elidris[1], Abdulrazzak Elyunus[3], Burak Çelik[5], Bahadır Karaca[4]

[1]Cobanbey Hospital Department of General Surgery

[2]Cobanbey Hospital Department of Pediatric Surgery

[3]Cobanbey Hospital Department of Urology

[4]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine

[5]Kirsehir Training and Research Hospital, Department of Emergency Medicine

Abbreviations:

ACS: Abdominal Compartment Syndrome

DL: Decompressive Laparotomy

IAH: Intra-Abdominal Hypertension

ICU: intensive care unit

Post-op: post-operative

WSACS: World Society of the Abdominal Compartment Syndrome

Background:
This study aims to determine the effectiveness of early preventive application of Bogota bag when we expect a high probability for developing (ACS) in neonate and pediatric groups who underwent an emergency laparotomy, in our limited resource areas in North of Syria.
We discussed in this study our experience in preventive usage of bogota bag and the need to high index of suspension from the first operation to prevent later ACS development and associated mortality.

Methods:
This is a prospective study in which we will discuss different scenarios of emergency abdominal surgical patients from two pediatric groups. In each pediatric group there were cases treated without the application of Bogota bag, and other cases managed by staged operations depending on using Bogota bag. The study underwent between January 2020 and September 2022.

Results:
The first include 6 newborns suffered from congenital huge Bochdalek diaphragmatic hernia; 4 of them operated traditionally without Bogota bag. All of them were died between 1 and 4 Post-op days. For the other two newborns we applied Bogota bag and closed abdomen in the 10th to 14th Post-op days and discharged on the Post-op 20 days on average.
The second group include 3 children with complicated appendicitis lead to neglected generalized peritonitis the first one was 13 years old boy we need to re-do laparotomy and Bogota bag application. the second two patients were girls 10 and 12 years old respectively, we applied Bogota bag directly in the first operation and closed abdomen in the 3 post-op day. All of them had eventless hospitalization and discharged on the 7 Post-op day.

Conclusions:
Improving the outcome in pediatric patients with ACS by removing risk factors is difficult; furthermore the early diagnosis of ACS before reaching irreversible damage is more difficult in our limited resource areas. This emphasizes the need for protective procedure and we found that Bogota bag application is as simple as effective way that could relieve obstacles we face in Syria.

introduction:

We defined ACS according to the latest WSACS consensus definition for ACS in the pediatric population: a sustained elevation in IAP of greater than 10 mmHg associated with new or worsening organ dysfunction that can be attributed to elevated, whereas for adults the threshold is still 20 mmHg [6]. However, there are no normal IAP pressure values for healthy children [4]. Ejike et al. established that baseline IAP in critically ill children is approximately 4–10 mmHg [1].

Abdominal compartment syndrome ACS in children results in 100% mortality if left untreated [2]. The only effective treatment of ACS, once conservative therapies fail, is emergency decompressive laparotomy (DL) with open abdomen management [2]. Unfortunately according to (WSACS) there is no accurate or precise standard criteria for newborns and children compared to that well established for adults [2].

Among children with ACS, a high mortality of 40 to 85% still persists despite surgical decompression, which is partly attributable to the following conditions[2]. :

1. The scarcity of literature on ACS in the pediatric population shows that this patient group has been studied less extensively [2].
2. The etiology, risk factors, diagnosis and course of disease in the pediatric population differ from ACS in adults; hence, knowledge on ACS in adults does not directly translate to the pediatric population [2]. Figure: 1
3. Recognition of ACS among pediatric health-care providers is still insufficient. Many pediatric intensivists and surgeons are aware of ACS, but knowledge on published consensus definitions, measurement techniques, and, most of all, on management are likely insufficient and not applied throughout [5].

Table 1 Distinction of primary and secondary ACS	
Primary ACS	
Reduced abdominal wall compliance	Gastroschisis
	Congenital diaphragmatic hernia
Increased intra-luminal contents	Small bowel intussusception
	Ileus
	Hirschsprung's disease
Increased intra-abdominal contents	Bowel perforation
	Peritonitis or intra-abdominal infection
	Intra- or retroperitoneal bleeding
	Ascites
	Intra-abdominal tumor (Wilms', Burkitt's)
	Acute pancreatitis
	Abdominal organ transplantation
Secondary ACS	
Capillary leak/fluid resuscitation	Shock (septic, cardiogenic, hemorrhagic) Burns
Table 1 summarizes some of the commonly associated pediatric conditions that predispose patients to ACS according to the WSACS definitions [2].	

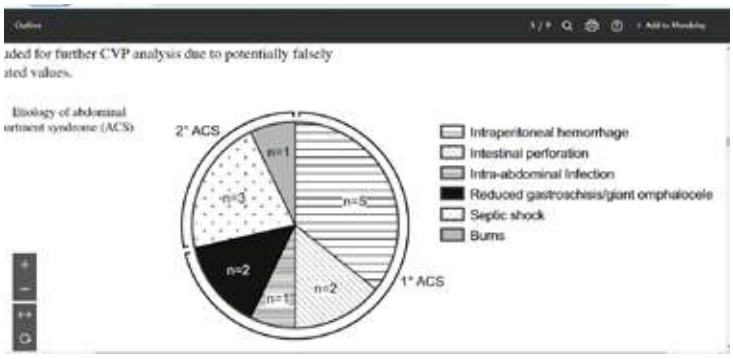


Figure (1): Etiology of primary abdominal compartment syndrome (1 ACS) ; and secondary abdominal compartment syndrome (2 ACS) [2].

According to di Natale et al. (2014), congenital malformations is the main cause in neonatal period, and intra-abdominal infection came as the third causes in all pediatric age distributions. Figure (1).

Methods:

This is a prospective study in which we will discuss different scenarios of emergency abdominal surgical patients from two pediatric groups. In each pediatric group there were a cases treated without the application of Bogota bag, and other cases managed by staged operations depending on using Bogota bag. The study underwent between January 2020 and September 2022.

Sampling of the first group:

We operated traditionally 4 congenital huge Bochdalek diaphragmatic hernia, in which the whole small bowel, stomach, and the spleen were in the thorax. Unfortunately all of them died between 1 and 4 Post-op days in our hospital. We had a strong suspension that the ACS was a main leading cause of their death; as all of them suffer from having small abdominal capacity during the operation. All of them were left paralyzed and sedated on ventilator after operation.

We decided to use Bogota bag after visceral reduction from thorax to abdomen to enlarge abdominal capacity and lowering IAP. We used sterile empty blood unit bag in two newborns (figure:2).

We closed abdomen after 10 days after weaning from mechanical ventilation, and discharge them on 30 post-op days.

Figure (2): the empty sterile blood unit bag that we use to close abdomen temporally.

Figure (3): The used sterile empty blood unit bag as Bogota bag preventively to increase abdominal capacity and maintain low intra-abdominal pressure.

Figure (4): The final appearance after application of Bogota bag in neonate with huge congenital bochdalek hernia.

Sampling of the second group:

We received in our hospital 13 years old boy with lately diagnosed necrotizing appendicitis resulting in generalized peritonitis. Laparotomy was performed through a gridiron incision drain application. within 8 hours after surgery the patient suffered of continuous abdominal pain, abdominal distension and vomiting despite the routine post-op analgesic using. Intra-abdominal pressure at that time was 30 cm H2O. we decided to perform redo-laparotomy and use Bogota bag after 48 hours we closed the abdomen and discharged patient in the 3 post-op day.

We decided to use Bogota bag for any similar cases. Within 6 months we faced two girls (10 and 12 years old respectively) suffering from the same scenario. We applied Bogota bag directly in the first operation and closed abdomen at the 3 post-op day. Each of them had eventless hospitalization and discharged on the 7 Post-op day.

Figure (5): Adapting the sterile plastic bag to the shape of the relaxed incision without any tension.

Figure (6): demonstrate some intestinal manifestations that indicate imminate ACS: such as being widespread edematous with sub-serosal dark-purple and even black patches;(the higher the number the higher ACS risk).

Discussion:

Firstly we are going to list the top predisposing factor and weak point that precipitate to (ACS) and made its management difficult in limited resource areas in North of Syria:

1. Depletion and loss of human resources (surgeons, doctors, nurses, paramedics etc.)

2. Scarcity of ICUs in field hospital

3. Deficiency in training programs that focus on Post-op and ICU skills and that had a direct effect or even dominate the surgical discussions and narrowing down options available for surgeons. As a result most surgeons search for the most short and simple options.

4. Inefficiencies of medical supply chains in the absence of an effective centralized government.

5. Weakness of pediatric medical expertise and lack of experience with neonate in ICUs among our newly established hospitals.

We have already been witnesses to a lot of patients who faced death that was inevitable consequence of late surgical decision making, or hesitation about IAP grading. We are convinced that waiting till reaching definitions may cause irreversible organs failure, and when reaching those limits, the use of Bogota bag will not be useful for previously neglected or lately diagnosed patient referred to our hospital.

Improving the outcome in these patients by removing risk factors seems difficult, as many of them are not readily influenceable [2]. This emphasizes the need for prompt intervention from the first operation when we expect that (ACS) will develop later to improve patients' outcomes.

We recommend to use Bogota bag at any case we supposed strongly that will evolve into inta-abdominal hypertension and ACS.

We prefer to use Bogota bag as a simple approach, instead of relying on more difficult approaches such as Vacuum-Assisted Facial Closure [3]. using Velcro Analogue, Absorbable Meshes, or Silo bag [3]. ; as all of that approaches either unavailable or cannot be found in our restricted resources regions, or on the other handstand out the need for expert medical teams which is also difficult to provide constantly in our limited resources areas.

We diverted from the traditional form of treatment strategies to the preventive strategies that accommodate more with our hard living conditions in north of Syria and found that can significantly reduce ACS-associated mortality rate.

Key words: limited resource areas in Syria, intra-abdominal hypertension, Bogota bag, preventing abdominal compartment syndrome, generalized peritonitis, neonatal and pediatric groups, North of Syria.

References (APA 7th style of citation)

1. Chiaka Ejike, J., Humbert, S., Bahjri, K., & Mathur, M. (2007). Outcomes of children with abdominal compartment syndrome. *Acta Clinica Belgica*, *62*(sup1), 141–148. https://doi.org/10.1179/acb.2007.62.s1.018

2. di Natale, A., Moehrlen, U., Neeser, H. R., Zweifel, N., Meuli, M., Mauracher, A. A., Brotschi, B., & Tharakan, S. J. (2020). Abdominal compartment syndrome and decompressive laparotomy in children: A 9-year single-center experience. *Pediatric Surgery International*, *36*(4), 513–521. https://doi.org/10.1007/s00383-020-04632-0

3. Feliciano, D. V., Mattox, K. L., & Moore, E. E. (2021). *Trauma*. McGraw-Hill.

4. Kirkpatrick, A. W., Roberts, D. J., Jaeschke, R., De Waele, J. J., De Keulenaer, B. L., Duchesne, J., Bjorck, M., Leppäniemi, A., Ejike, J. C., Sugrue, M., Cheatham, M. L., Ivatury, R., Ball, C. G., Reintam Blaser, A., Regli, A., Balogh, Z., D'Amours, S., De laet, I., & Malbrain, M. L. N. G. (2015). Methodological background and strategy for the 2012–2013 updated consensus definitions and clinical practice guidelines from the abdominal compartment society. *Anestezjologia Intensywna Terapia*, *47*(J), 63–77. https://doi.org/10.5603/ait.a2015.0081

5. Malbrain, M., Wise, R., Roberts, D., Vandervelden, S., Debergh, D., De Waele, J., De laet, I., Kirkpatrick, A., & De Keulenaer, B. (2014). Awareness and knowledge of intra-abdominal hypertension and abdominal compartment syndrome: Results of an international survey. *Anestezjologia Intensywna Terapia*. https://doi.org/10.5603/ait.2014.0051

6. WSACS. (n.d.). Retrieved October 21, 2022, from https://www.wsacs.org/

Seven Siblings Admitted to Emergency with Datura Poisoning: Cases from Northern Syria

Burak Çelik[1], Bahadır Karaca[2], Murat Tepe[3]

[1]Kirsehir Training and Research Hospital, Department of Emergency Medicine

[2]Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital, Department of Emergency Medicine

[3]Kilis State Hospital, Department of Emergency Medicine

Introduction

Datura Stramonium (DS) is a wild and herbaceous plant that grows widely and is popularly called by many different names such as devil apple, pipe flower, jimson grass, abu lily, gin grass, tatula, tatala or pork patina (1). DS can cause poisoning with severe anticholinergic syndrome and it contains atropine, hyoscyamine, and scopolamine (2). Anticholinergic symptoms; mydriasis, dry-red skin, hallucinations, agitation, hyperthermia, urinary retention, decreased bowel motility, convulsion, delirium, confusion, speech disorder, hypertension, nausea, abdominal pain, erythema, ataxia, fasciculations, and muscular rigidity (3). In this article, we aimed to present the clinical information of seven siblings who were admitted to the hospital with different symptoms after eating DS, and two of them were followed up in the pediatric intensive care unit and discharged with recovery.

Case Reports

seven siblings aged one to eight years applied to the emergency department of our hospital with various complaints such as skin symptoms, nausea-vomiting and changes in consciousness about one hour after they ate the plant they found in the garden. It was understood that the plant brought to the hospital by their families was DS.

A 7-year-old female patient had complaints of nausea-vomiting, skin rash, and altered consciousness. On physical examination, she was conscious, and her orientation and cooperation were impaired. Pupillary mydriatic, mucous membranes were dry, and diffuse redness was present on her body, which faded with pressure and was not raised from the skin. Other system examinations were evaluated as normal. Fever: 38 C, heart rate 118/min, oxygen saturation: 98%, respiratory rate: 22/min. Hemogram and biochemistry results evaluated in the emergency department were within normal reference ranges. The patient, who was evaluated as anticholinergic poisoning due to DS consumption, was admitted to the pediatric intensive care unit.

During his intensive care hospitalization, he had a delirium picture including visual hallucinations, meaningless speech, unconscious movements, and spatial and temporal disorientation. Oxygen support, intravenous hydration, and diazepam treatment for his agitations were given, and his symptoms regressed after approximately 24 hours. After 48 hours of follow-up in the pediatric intensive care unit, the patient was discharged with full recovery.

A 7-year-old male patient had complaints of nausea-vomiting, skin rash and altered consciousness. On physical examination, she was conscious, and her orientation and cooperation were impaired. Pupillary mydriatic, mucous membranes were dry, and diffuse redness was present on her body, which faded with pressure and was not raised from the skin. Other system examinations were evaluated as normal. Fever: 37.5 C, heart rate 110/min, oxygen saturation: 97%, respiratory rate: 21/min. Hemogram and biochemistry examination results in the emergency room were within normal reference ranges. The patient, who was evaluated as anticholinergic poisoning due to DS consumption, was admitted to the pediatric intensive care unit.

During his intensive care hospitalization, he had a delirium picture including visual hallucinations, meaningless speech, unconscious movements, and spatial and temporal disorientation. Oxygen supplementation, intravenous

hydration, and diazepam treatment for his agitations were given, and his symptoms resolved after approximately 30 hours. After 48 hours of follow-up in the pediatric intensive care unit, the patient was discharged with full recovery.

Abdominal pain and skin findings were prominent in the complaints of the other 5 siblings aged 1 to 8 years. On physical examination, there were diffuse skin rashes that were not raised from the skin, which faded with pressure, and mydriasis. There were no changes in consciousness. Vital signs were within normal ranges. On physical examination, there were no pathological findings other than skin rash and mydriasis. The patients who underwent intravenous fluid therapy and follow-up in the emergency department did not have any additional complaints after 12 hours of observation and were discharged with recommendations.

Discussion

The anticholinergic symptoms observed in DS poisoning depend on the atropine, scopolamine and hyosyamine contained in the plant (4). The first and most specific manifestations of anticholinergic poisoning due to DS toxicity; dryness of the skin and mucous membranes, diffuse skin redness, mydriasis and sinus tachycardia. In more severe cases, it can lead to multiple organ failures and neurological symptoms such as delirium and coma (5). All of our cases had diffuse skin rashes and findings of mydriasis. Except for two patients who were followed up in the intensive care unit, there were no neurological symptoms.

Poisoning due to Datura Stramonium is mostly caused by the wrong and unconscious consumption of herbal medicine in the cases in our country. It is used orally by people with acne, eczema, and hemorrhoids complaints, and locally by making an ointment by people with muscle and joint pain complaints (1). DS poisoning seen in western countries is generally caused by abuse in the form of consumption as cigarettes due to its euphoric and hallucinogenic effects in young adults (6). All of our cases are pediatric patients and there is accidental consumption.

The main treatment in DS poisoning consists of supportive treatment and care. Gastric lavage can be applied in cases admitted in the first hour after ingestion. Activated charcoal is recommended. Benzodiazepines can be given to patients with agitation. Physostigmine, a cholinesterase inhibitor, can be given in resistant cases (7). Physostigmine easily crosses the blood-brain barrier and reaches peak activity 5 minutes after administration. It can be given intravenously in doses of 0.5-2 mg, without faster than 1 mg/min. Serious side effects such as hypotension, bradycardia, convulsions and asystole are known (8). None of our patients had resistant delirium or agitation that would require physostigmine. Most of the cases followed up due to DS poisoning are discharged in less than 48 hours (9). While 2 of our patients that we followed up in the intensive care unit were discharged within 48 hours, the other 5 patients were discharged after 12 hours of follow-up in the emergency room.

Conclusion

In conclusion, wild plant poisoning should be considered in all patients presenting to the emergency department with anticholinergic findings and complaints of unknown origin, and patients should be evaluated and questioned in this respect.

References

1) Kurt, D. D., Korulmaz, A., Alakaya, M., & Arslanköylü, A. E. Deliryuma yol açan nadir bir intoksikasyon: Datura stramonium. *Mersin Üniversitesi Sağlık Bilimleri Dergisi*, *15*(1), 128-132.

2) Trancă SD, Szabo R, Cociş M. Acute poisoning due to ingestion of Datura stramonium -- a case report. Rom J Anaesth Intensive Care 2017;24:65-8.

3) Bıçakcıoğlu M, Gedik E, Şayan H, et al. Hayatı Tehdit Eden Datura Otu Zehirlenmesi. Türkiye Klinikleri J Med Sci 2014; 34:417-9.

4) Celbek G, Güneş H, Güngör A, et al. [Anticholinergic syndrome after trial of Datura stramonium: A case report]. Konuralp Tıp Dergisi 2010; 2:35-7.

5) Shebani, A., Hnish, M., Elmelliti, H., Abdeen, M. M., & Ganaw, A. (2021). Acute poisoning With Datura stramonium plant seeds in Qatar. *Cureus*, *13*(12).

6) Spina, S. P., & Taddei, A. (2007). Teenagers with Jimson weed (Datura stramonium) poisoning. *Canadian Journal of Emergency Medicine*, *9*(6), 467-469.

7) Wax PM, Young AC. Anticholinergics. In: Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka RK, Meckler GD, editors. Tintinalli's emergency medicine: a comprehensive study guide. 7th ed. New York: McGraw-Hill; 2011:1305-8

8) Chung, W. M., Chian, Y. Y., & Azmir, A. (2018). Datura fruit poisoning. *Med J Malaysia*, *73*(6), 453-454.

9) Disel, N. R., Yilmaz, M., Kekec, Z., & Karanlik, M. (2015). Poisoned after dinner: dolma with Datura stramonium. *Turkish journal of Emergency medicine*, *15*(1), 51-55.

Trends in suicide attempts and associated factors: A 3-year Analysis

Adem Az[1], Çiğdem Orhan[1], Özgür Söğüt[2]

[1] Beylikdüzü Public Hospital, Department of Emergency Medicine, İstanbul, Türkiye

[2] University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Introduction

Suicide is a significant global health issue. It is essential to examine suicide trends, identify risk groups, and implement interventions to prevent suicide attempts and fatalities. Support programs diminish suicidal tendencies. We evaluated suicide trends and related variables by analyzing the epidemiological features of patients hospitalized to the emergency department (ED) following suicide attempts.

Materials and Methods

This retrospective, cross-sectional, single-center observational study comprised 412 consecutive patients hospitalized to the Emergency Department for follow-up and treatment following a suicide attempt between June 2019 and June 2022. We evaluated patient demographics, suicidal behavior, prior suicide attempts, mental diseases, drug use, recent visits to the psychiatry clinic, the persistence of suicidal thoughts, and therapeutic results.

Results

The study population consisted of 259 females (62.86%) and 153 (37.14%) males. The age distribution of the study population was from 13 to 72 years old, with a mean age of 29.50 11.51 years. Although females had a higher rate of suicide attempts, males were more likely to successfully end their lives by suicide. In total, 79.37% (n = 327) of the people who attempted suicide were younger than 40 years old, with the majority being between the ages of 20 and 29 (n = 147, 35.68%). It was shown that those who were unmarried, jobless, and had a low level of education were more likely to try suicide, whereas people with higher levels of education were more likely to successfully commit suicide. However, there was no statistically significant difference between suicide completers and non-completers in terms of marital status, educational attainment, or career (Table 1). The majority of those who attempted suicide did so by overdosing on drugs (n = 345, or 83.74%). The most prevalent factors that led to suicide thoughts were mental problems, disagreements within the family or relationships, and being apart from a spouse (Table 2). The number of patients was especially high throughout the fall (namely in September) and during the evening hours.

Conclusion

Females, young adults, singles, the unemployed, and individuals with psychiatric disorders are more vulnerable to suicide attempts, as are those who are poorly educated. In addition, people tend to make suicide attempts when they are alone themselves. To substantiate these findings, more clinical tests with bigger participant populations are required.

Table 1: Patients' demographic and clinical characteristics

		Suicide attempters			Suicide completers		
		n	%	p*	n	%	p*
Total		412	100.00		14	3.40	
Sex							
	Male	153	37.14	<0.001	12	85.71	0.008
	Female	259	62.86		2	14.29	
Age distribution (years)							
	<20	86	20.87	<0.001	2	14.29	0.284
	20-29	147	35.68		4	28.58	
	30-39	94	22.82		1	7.14	
	40-49	59	14.32		5	35.71	
	50-59	20	4.85		1	7.14	
	>60	6	1.46		1	7.14	
Marital status							
	Unmarried	236	57.28	<0.001	5	35.71	0.304
	Divorced	29	7.04		2	14.29	
	Married	147	35.68		7	50.00	
Education level							
	Elementary school and below	111	26.94	<0.001	7	50.00	0.304
	High school	207	50.24		2	14.29	
	College degree or more	94	22.82		5	35.71	
Occupation							
	Employed	116	28.16	<0.001	5	35.71	0.285
	Unemployed	296	71.84		9	64.29	
Clinical outcome							
	Death	14	3.40	<0.001			
	Discharged	128	31.07				
	Hospitalization	185	44.90				
	ICU	85	20.63				

Note: Data are expressed as numbers (n) and percentages (%). Intergroup comparisons were conducted using Chi-squared test for normally distributed data.

Abbreviation: ICU, intensive care unit.

Table 2: Suicidal behaviors of patients

		Suicide attempters			Suicide completers		
		n	%	p*	n	%	p*
Method of suicide attempts							
	Drug poisoning	345	83.74	< 0.001	3	21.43	0.594
	Stabbing	42	10.19		-	-	
	Jumping from heights	14	3.40		5	35.71	
	Drowning	7	1.70		3	21.43	
	Gunshot wound	2	0.49		2	14.29	
	Hanging	2	0.49		1	7.14	
Cause of suicidal ideation							
	Family conflict	80	19.42	< 0.001	1	7.14	0.059
	Family violence	14	3.40		-	-	
	Relationship conflict	71	17.23		1	7.14	
	Economic stressors	43	10.44		5	35.71	
	School failure	12	2.91		-	-	
	Mental disorders	150	36.41		7	50.00	
	Others	42	10.19		-	-	
History of psychiatric disorders							
	Absence	258	62.62	0.014	3	21.43	0.033
	Presence	154	37.38		11	78.57	
	Alcoholism	15	3.64		-	-	
	Anxiety disorders	34	8.25		3	21.43	
	Bipolar disorder	4	0.98		2	14.29	
	Borderline personality disorder	6	1.45		-	-	
	Depression	77	18.67		5	35.71	
	Substance abuse	13	3.17		1	7.14	
	Schizophrenia	5	1.22		-	-	
History of previous suicide attempts							
	Absence	356	86.41	< 0.001	10	71.43	0.109
	Presence	56	13.59		4	28.57	
Visits to the psychiatry outpatient clinic within the previous 6 months							
	Absence	308	74.76	< 0.001	6	42.86	0.593
	Presence	104	25.24		8	57.14	
Persistence of suicidal thoughts							
	Absence	253	61.41	< 0.001			
	Presence	159	38.59				

References

1. World Health Organization. Suicide. Available at: https://www.who.int/news-room/fact-sheets/detail/suicide. Accessed 06.08.2022.
2. Bachmann S. Epidemiology of Suicide and the Psychiatric Perspective. Int J Environ Res Public Health. 2018;15(7):1425.
3. De Leo D, Evans R. International suicide rates. Recent trends and implications for Australia. Report to the Commonwealth of Australia. Canberra: Department of Health and Aging; 2003.

4. Lindert J, Schouler-Ocak M, Heinz A, Priebe S. Mental health, health care utilisation of migrants in Europe. Eur Psychiatry. 2008;23(Suppl.1):14–20.
5. Han B, Kott PS, Hughes A, McKeon R, Blanco C, Compton WM. Estimating the rates of deaths by suicide among adults who attempt suicide in the United States. J Psychiatr Res. 2016;77:125-33.
6. Foster T, Gillespie K, McClelland R, Patterson C. Risk factors for suicide independent of DSM-III-R Axis I disorder. Case-control psychological autopsy study in Northern Ireland. Br J Psychiatry. 1999;175:175-9.

CONFUSING APPEALS GUESS WHO; KOUNİS

Onur Aslan

INTRODUCTION AND PURPOSE:

Kounis syndrome, named as "allergic angina syndrome" by Kounis and Zavras in 1991, is the development of acute coronary syndrome associated with allergy, hypersensitivity, anaphylaxis or anaphylactoid reactions, which progresses with the activation of mast cells.

In this case series, we aimed to present 7 different Kounis syndrome cases.

CASE SERIES:

Four patients diagnosed Type 1, 1 patients type 2, and 1 patient diagnosed type 2 and 3 Kounis syndrome in a total of 7 patients who presented to the emergency department after allergic symptoms (Table).

In the first four patients aged 27, 32, 41 and 48 years old, discharge was planned without coronary angiography.

Coronary angiography of two patients who were 43 and 51 years old who were admitted to the emergency department after unknown insect bite and a bee sting respectively. Both of these two patients had LCX artery total occlusion.

A 57-year-old male patient presented with allergic symptoms and chest pain after being vaccinated against COVID-19 12 hours ago, and had ST segment elevation in the anterior leads in his ECG. Coronary angiography of the patient was found to have total occlusion of the LAD artery. Acute stent rethrombosis was seen 6 hours later in the patient who was staying in the coronary intensive care unit after stent implantation.

DISCUSSION:

Kounis syndrome, which develops after mast cell activation and inflammatory mediator release, is divided into three types.

Type I: Without atherosclerotic risk factors and coronary artery disease, the patient has coronary vasospasm caused by allergic mediators such as histamine, thromboxane and leukotrienes.

Type II: Patients with atherosclerotic coronary artery disease have an acute coronary syndrome as a result of coronary vasospasm triggered by these mediators, plaque wear or tear.

Type III: It includes patients with stent thrombosis developing after an allergic reaction.

The most commonly affected age group in Kounis syndrome is 40-70 years old. The most common triggers are antibiotics (27.4%) and insect bites (23.4%). Most of the evidence for the efficacy of treatment in Kounis syndrome is based on individual case reports or case series. Corticosteroids such as hydrocortisone at a dose of 1-2 mg/kg/day, H1 antihistamines such as diphenhydramine (1-2 mg/kg) and H2 antihistamines such as ranitidine (1 mg/kg) can be used as supportive treatment.

	AGE	GENDER	SYMPTOMS AT APPEAL	RISK FACTORS	ALLERGEN	hs-TROPONİN	ECG	ECHO	CAG	CT ANGIOGRAPHY	TYPE
CASE 1	27	FEMALE	Allergic symptoms and chest pain	Cigarette	Analgesic	0,257	NSR	Normal			1
CASE 2	32	FEMALE	Allergic symptoms and chest pain	None	Analgesic	0,012	V2-3-4 T neg.	Mild MY		Normal	1
CASE 3	41	MALE	Chest pain	Cigarette	Vaccine	0.523	NSR	Normal			1
CASE 4	48	MALE	Allergic symptoms and cold sweatness	Cigarette and family history	Bee bite	0,612	NSR	Normal		Normal	1
CASE 5	43	MALE	Allergic symptoms and chest pain	Cigarette	Unknown insect bite		D1-aVL-V5-V6 ST segment elevation		LCX		2
CASE 6	51	FEMALE	Allergic symptoms and chest pain	Diabetes and family history	Bee bite	1,113	NSR		LCX		2
CASE 7	57	MALE	Allergic symptoms and chest pain	None	Vaccine		V2-3-4-5 ST segment elevation	Apical hypokinesia	LAD		2 and 3

CONCLUSION: Kounis syndrome should be kept in mind in chest pain that may be interwined with any allergic reaction.

A Rare Emergency Case; The Clay Shoveler's Fracture

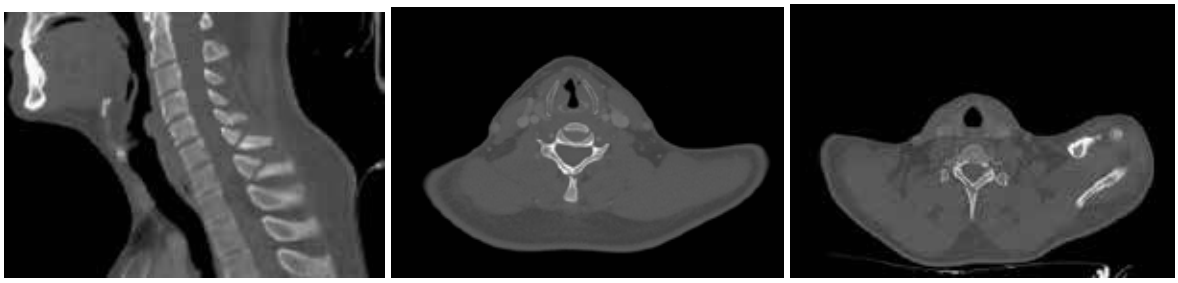
Ayşenur İncehasan

Clay Shoveler's fracture is a spinous process fracture mostly seen in the lower cervical vertebrae and at the level of the upper thoracic vertebrae. Fractures usually occur in the C7 and T1 vertebrae. In this presentation, we aimed to present a case of Clay Shoveler's fracture after blunt trauma.

A 32-year-old male patient was admitted to the emergency department due to blunt trauma to the neck and back. He had no known disease history and no medication he used. There was no feature in his family history.

His vital signs were: body temperature: 36 °C, HR: 92/min, BP: 175/100mmHg, So2:98%, RR: 15/min. In the physical examination of the patient, there was tenderness in the lower cervical vertebrae and palpable swelling under the skin. There was no neurological deficit. Other system examinations were normal. A neck collar was attached to the patient and examinations were requested.

Blood tests were leukocytes: 16.3 10^3/uL, hemoglobin 15.6 g/dL, platelets 254 10^3/uL. Other laboratory parameters were normal. Cervical and thoracic vertebra computed tomography was performed on the patient. Fractures were detected in the spinous processes of the C6 and C7 cervical vertebrae in their imaging. The patient was admitted to the neurosurgery service for further examination and treatment.



Clay Shoveler's fracture was referred to as spinous process fractures of the lower cervical and upper thoracic vertebrae after this type of fracture was identified in shovel workers. It is mostly seen in heavy-duty workers, in patients using high-dose steroids, and after trauma.

Clay shoveler's fracture is more common in C7 and T1 vertebrae than other vertebrae due to the relative length and inclination of the spinous processes. Excessive hyperextension or sudden contractions of trapezius and rhomboid minor muscle groups in trauma cause fractures.

Bidirectional cervical radiograph is usually sufficient to support the diagnosis. In addition, CT imaging can be performed for more extensive bone examination.

In conclusion, although Clay Shoveler fracture are rare, they should be recognized by emergency physicians due to typical and radiological findings.

Comparison of Neutrophil/Lymphocyte Ratio and Trombocyte/Lymphocyte Ratio With Gensini and Syntax Scores for Non-ST-Elevation Myocardial Infarction

Mesut Mollaoglu[1], Ertugrul Altinbilek[2] , Erkan Gunay[2] , Hakan Kilci[4]

[1]Bakirkoy Dr.Sadi Konuk Training and Research Hospital, Department of Emergency Medicine

[2]Sisli Hamidiye Etfal Training and Research Hospital, Department of Emergency Medicine,

[3]Sisli Hamidiye Etfal Training and Research Hospital, Department of Cardiology

Introduction

Cardiovascular disease is the number one cause of mortality worldwide. It is important for a disease this common that the workup used in evaluating and monitoring these patients are easily accessible and inexpensive (1). Atherosclerosis often plays a role in the etiology of coronary artery disease (CAD). Atherosclerosis is a progressive, systemic and inflammatory disease which can be asymptomatic or lead to acute myocardial infarction. The degree of stenosis caused by atherosclerosis is directly related to the severity of CAD(2). CAD is defined as a narrowing of 50% or more in the diameter of any of the coronary arteries. The gold standard method in the diagnosis and treatment of ACS is coronary angiography. Scoring systems such as Gensini and SYNTAX are used to determine the severity and extent of the disease after coronary angiography (CAG) (3-4). In recent years, the neutrophil/lymphocyte ratio (NLR) has become a marker of subclinical inflammation and has been used in conjunction with other inflammatory markers to detect inflammation in many diseases. Apart from NLR, platelet-lymphocyte ratio (PLR) has also been used to predict prognosis in many inflammatory and cardiovascular diseases. The relationship between NLR and PLR mortality in ischemic heart diseases was investigated (5-9).

In our study, we aimed to put forth a correlation between severity of stenosis and inflammatory response by assessing the relation between SYNTAX and Gensini scores and P/L and N/L in patients diagnosed with NSTEMI.

Method:

Our study is a retrospective, observational, single centre cohort study. We included 229 patients over 18 years of age, admitted to our ED with a diagnosis of NSTEMI in a timespan of 12 months (01.11.2017 – 01.11.2018) and underwent CAG. From the CAG reports, Gensini and SYNTAX scores were calculated. Risk assessment of scores were as following: Gensini score of <35 was accepted as low risk, >35 high risk and SYNTAX score of <22 low risk, 22 – 32 moderate risk, >32 high risk. The risk assessment results and laboratory data were evaluated. Patients, who were admitted to the emergency department with the diagnosis of STEMI or NSTEMI and were referred from our hospital to another center and followed up in another center, patients under the age of 18 with a diagnosis of acute coronary syndrome, pregnant women, patients with hematological malignancies, and patients with a history of CABG operation were not included in our study.

In the descriptive statistics of the data, mean, standard deviation, median minimum, maximum, frequency and ratio values were used. The distribution of variables was measured with the Kolmogorov-Smirnov test. The Mann-Whitney U test was used in the analysis of quantitative independent data. Chi-square test was used in the analysis of qualitative independent data, and fischer test was used when the chi-square test conditions were not met. SPSS 26.0 program was used in the analysis.

Findings:

The mean age of the subjects was 62±12,9 with 180 male (%78,6) and 49 female subjects (%21,4). The laboratory parameters of the patients were recorded and analyzed. The mean CRP values of the patients were 17.9±36.5

(0-5), troponin 1358.3±4132.5 (0-19), and CKMB 13.6±28.8 (0.6-6.3), and N/L ratio was 3.9±4.8, the P/L ratio was 118.8±84.2 (Fig 1,2). The patients with low SYNTAX score were 85.6%, moderate 10.9%, and high 3.5%. The patients were divided into 2 groups, with a Gensini score of <35 low and >35 high. The SYNTAX score was considered as <22 low risk, 22-32 moderate, and >32 high risk.

When the two groups with Gensini scores <35 and >35 were examined, the age, gender, smoking and comorbidity rates (CAD, DM, HT, HL) of the patients showed no significant difference between the groups (p>0.05). LDL value was significantly higher in the group with a Gensini score of >35 than in the group with a Gensini score of <35 (p 0.05). In the group with Gensini score <35 and >35, HDL, cholesterol, triglyceride, VLDL, urea, creatinine, GFR, platelet, WBC, neutrophil, lymphocyte, Hgb, troponin, CKMB, MPV values showed no significant difference (p> 0.05). Those with a Gensini score of >35 had significantly higher CRP and NLR values than those with a Gensini score of <35 (p 0.05). Lymphocyte value with a Gensini score of >35 was significant result in those with a Gensini score of <35 (p 0.05). There was no significant result for a PLR value with a Gensini score of <35 and >35. (p>0.05).When compared to the group with a Gensini score of <35, subjects with a score of >35 had significantly lower values of Lymphocyte % and higher values of N/L, Neutrophil % and CRP (p<0,05) (Fig 3-4). Whereas P/L showed no correlation to Gensini scores. (p>0,05). Subjects with a moderate or high SYNTAX score, had higher N/L and P/L compared to subjects with a low SYNTAX score (p<0,05) but in all three risk groups CRP, Lymphocyte % and Neutrophil % showed no significant correlation. (p>0,05). A SYNTAX score of <22 was considered low risk, 22-32 was considered moderate, and >32 was considered high-risk. When the group with a low SYNTAX score was compared with the group with a medium-high score, no significant difference was found in terms of smoking and comorbid disesas (CAD, DM, HT and HL) (p>0.05). The mean age, LDL and cholesterol values of the patients in the group with medium and high SYNTAX scores were found to be significantly higher than those in the group with low SYNTAX scores (p 0.05). HDL, triglyceride, VLDL, urea, creatinine, GFR, platelet, WBC, neutrophil, lymphocyte, Hb, HbA1c, troponin, CKMB, CRP, MPV values, lymphocyte and neutrophil percentages were significantly different between the group with low Syntax score and the group with medium-high did not show (p>0.05).

Gensini score and SYNTAX score were evaluated and a significant correlation was found between these two scores (p<0.00). In the group with Gensini <35, the mean SYNTAX was 4.5±4.7, and in the group with Gensini >35, the mean SYNTAX was calculated as 18.2±8.9. Comparison of gene and syntax data of patients is shown in Fig 5.

Figure 1: NLR values by SYNTAX score

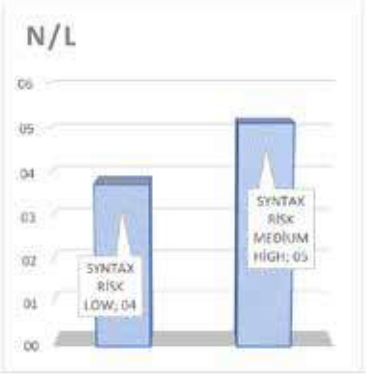


Figure 2: PLR values according to SYNTAX score

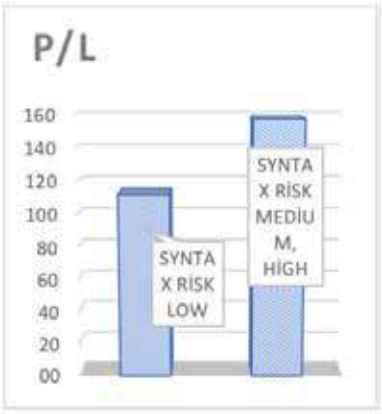


Figure 3: Neutrophil % values according to Gensini score

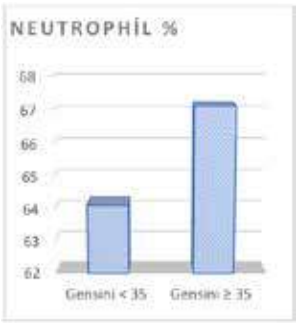


Figure 4: Lymphocyte % values according to Gensini score

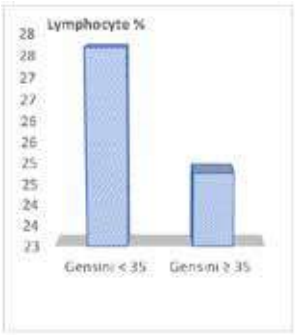


Figure 5: Distribution of SYNTAX risk groups by Gensini score

		Gensini ? 35			Gensini ≥ 35			p
		Ort.±ss		Medyan	Ort.±ss		Medyan	
Syntax		4.5 ± 4.7		4.0	18.2 ± 8.9		17.5	*0.000* [m]
Syntax Risk Sınıf	Düşük	117	99.2%		79	71.2%		
	Orta	1	0.8%		24	21.6%		*0.000* [x²]
	Yüksek	0	0.0%		8	7.2%		

[m] Mann-whitney u test/ [x²] Ki-kare test

Discussion:

Our study was conducted with 229 patients who applied to the emergency department of our hospital and un-

derwent CAG with the diagnosis of NSTEMI. The relationship between Syntax and Gensini scores and N/L and P/L values were compared.

By comparing the relationship between NLR and SYNTAX score in the study of Dur et al. on ACS, it was shown that the SYNTAX score was significantly higher in the group with a high NLR value. Our study gave results in parallel with previous studies. This conclusion was reached with much more patients (10).

In the study conducted by Kurtul et al. examining the relationship between the severity of coronary artery disease and the P/L ratio, the severity of coronary artery disease was evaluated with the SYNTAX score, as in our thesis. In the study of Kurtul et al., patients were divided into 2 groups as those with low SYNTAX score (<22) and those with high SYNTAX score (23≤). The PLR value was calculated as 104±4 in the group with a low SYNTAX score, and 172±93 in the group with a low SYNTAX score. It is seen that there is an increase in the PLR value as the severity of CAD increases. In the meta-analysis examining the prognostic value of the PLR ratio in acute coronary syndrome, which included 8 studies by Li et al. on 6627 patients, the patients were divided into two groups (PLR≤150-PLR≥150) according to the threshold value of the P/L ratio. In-hospital mortality and cardiovascular event rates were found to be significantly higher in the group with high PLR. In our thesis, the relationship between PLR values and SYNTAX score was significant in accordance with the literature.

There are studies showing that the SYNTAX score is more significant in demonstrating atherosclerosis than the Gensini score. The fact that atherosclerosis is an inflammatory process and the higher correlation of SYNTAX score with atherosclerotic markers explains the higher correlation with PLR value. There was no significant difference in PLR value in low and high risk groups of Gensini score (11, 12).

In the study conducted by Neeland et al. examining the relationship between 10 different angiographic scorings, namely Gensini, CASS, Duke CAD Severity, Syntax, Duke Jeopardy, BARI Jeopardy Index, Jenkins, Friesinger, Sullivan and Approach, it was determined that all scorings had a significant relationship with each other. When we evaluated the relationship between Gensini score and SYNTAX score in our thesis, we found a significant relationship between these two scores (13).

Conclusion:

When the relationship between NLR value and SYNTAX and Gensini scores was compared in our thesis, the results were found to be significant. It was concluded that NLR value is a parameter that can be used to predict the prognosis of patients diagnosed with NSTEMI. P/L showed significant correlation with Syntax Scoring, while P/L showed no correlation.

If we look at the comparison of inflammatory parameters other than NLR and PLR with SYNTAX and Gensini scores, WBC showed no significant association with either. CRP had a significant relationship with the Gensini score, but there was no significant relationship with the SYNTAX score. When evaluating patients with a prediagnosis of acute coronary syndrome, it should be considered that coronary artery disease and atherosclerotic process are also associated with acute inflammation, and inflammatory markers should be included in the clinical evaluation of the patient, as well as cardiac enzymes, ECG and imaging.

References

1. Global Burden of Disease Study 2017 (GBD 2017). Seattle, WA: Institute for Health Metrics and Evaluation, University of Washington; 2018.

2. Rognoni A, Cavallino C, Veia A, et al. Pathophysiology of Atherosclerotic Plaque Development. Cardiovasc Hematol Agents Med Chem. 2015;13(1):10-13.

3. Gensini GG. A more meaningful scoring system for determining the severity of coronary heart disease. *Am J*

Cardiol 1983; 51: 606

4. Bundhun PK, Sookharee Y, Bholee A, Huang F. Application of the SYNTAX score in interventional cardiology: A systematic review and meta-analysis. Medicine (Baltimore). 2017;96(28):e7410.

5. Kurtul A, Ornek E. Platelet to Lymphocyte Ratio in Cardiovascular Diseases: A Systematic Review. Angiology. 2019;70(9):802-818.

6. Yurtdas, Mustafa, et al. "Kompanse Kalp Yetmezligi Olan Hastalarda Notrofil-Lenfosit Orani, Trombosit-Lenfosit Orani ve Ortalama Trombosit Hacminin Arastirilmasi/Investigation of Neutrophil-to-Lymphocyte Ratio, Platelet-to-Lymphocyte Ratio and Mean Platelet Volume in Patients with Compensated Heart Failure." Journal of Academic Research in Medicine, vol. 8, no. 2, 2018, p. 67+. Accessed 13 Sept. 2020.

7. U.U. Tamhane, et al., Association between admission neutrophil to lymphocyte ratio and outcomes in patients with acute coronary syndrome, Am. J. Cardiol. 102 (6) (2008) 653–657.

8. L. Guasti, et al., Neutrophils and clinical outcomes in patients with acute coronary syndromes and/or cardiac revascularisation. A systematic review on more than 34,000 subjects, Thromb. Haemost. 106 (4) (2011) 591–599.

9. S. Uthamalingam, et al., Utility of the neutrophil to lymphocyte ratio in predicting long-term outcomes in acute decompensated heart failure, Am. J. Cardiol. 107 (3) (2011) 433–438

10. Ali DUR, Ziya İSMAİLOĞLU, Medine İSMAİLOVA, Dursun AKBAY, Ömer UYSAL, Hüseyin METİN, Bedia GÜLEN, Ertan SÖNMEZ. (2017).Akut Koroner Sendromun Erken Evresinde Ölçülen İnflamasyon Belirteçleri ve Nötrofil Lenfosit Oranlarının Syntax Severity Skoru ile Ölçülen Koroner Arter Darlığı Üzerinde Prediktif Etkisi.Bezmiâlem Science

11. Kalkan K, Hamur H, Yildirim E, et al. The Comparison of Angiographic Scoring Systems With the Predictors of Atherosclerosis. Angiology. 2018;69(2):158-163.

12. Li H, Zhou Y, Ma Y et al. The Prognostic Value Of The Platelet-To-Lymphocyte Ratio İn Acute Coronary Syndrome: A Systematic Review And Meta-Analysis. Kardiologia Polska (Polish Heart Journal), 2017; 75(7): 666-673

13. Neeland, I. J., Patel, R. S., Eshtehardi, P., Dhawan, S., McDaniel, M. C., Rab, S. T., Vaccarino, V., Zafari, A. M., Samady, H., & Quyyumi, A. A. (2012). Coronary Angiographic Scoring Systems: An Evaluation Of Their Equivalence And Validity. American heart journal, 164(4), 547–552.e1.

Which Is More Urgent? MI is it? SVD?

Yeşim İşler

Introduction

Cerebrovascular diseases are the third most common cause of death (1). The most common cause is atherosclerosis (2). The most common causes of cerebrovascular diseases seen at young ages are cardioembolism, arterial dissection and atherosclerosis. Cardiac causes are responsible for 40% of strokes in young age (3). Cardiac arrhythmias and electrocardiographic changes are frequently seen in cerebrovascular diseases, which are associated with increased morbidity and mortality (4). Acute ischemic strokes in certain areas of the brain may impair the central autonomic control of the heart, increasing the risk of cardiac arrhythmias, ECG abnormalities, myocardial damage, and sometimes sudden death (5). The incidence of ECG abnormality after acute ischemic CVO has been reported to be between 45% and 90% (6-8). Excessive ketcholamine release after acute ischemic CVO triggers cardiac arrhythmias, hypertensive attacks and myocardial infarction. Studies have shown that cardiac-related mortality develops in 2-6% of patients in the first trimester after acute ischemic CVO (9, 10).

Case

A 54-year-old male patient was brought to our emergency clinic by 112 with the complaint of speech disorder that started about an hour ago. When the patient came, BP was: 163/117 mmHg, Fever: 36.20C, Nb: 100 beats/min, SatO2: 98% BG: 80 mg/dl. He has a history of smoking 40 packs/year, hypertension, surgery due to gastric perforation a week ago, coronary angiography and stent 7 times. The general condition of the patient was good, conscious, oriented, cooperative, IR+/+, facial asymmetry and no deficits in the extremities. He stated that his speech was normally faster. He was also trying to remember some words, having trouble saying them. No pathology was detected in the other system examination. There was ST elevation in V1-V6 on EKG. The patient's brain tomography and diffusion magnetic resonance were taken. No pathological appearance was observed in the tomography. Acute infarction was detected in the left medial cerebral artery in diffusion magnetic resonance imaging. At the same time, the patient's troponin value came to 24 thousand. Transthoracic echocardiography was performed to the patient, who stated that he was young, had experienced a similar situation before, and recovered spontaneously. The patient was admitted to the cardiology department for angiography and 50-60% stenosis was detected in the proximal coronary. After medical treatment recommendation, the patient was taken over by neurology with the diagnosis of cerebrovascular disease.

Conclusion

It may accompany a serious diagnosis such as myocardial infarction simultaneously in cerebrovascular disease. Appropriate cardiac monitoring and effective management of arrhythmias in cerebrovascular disease are important to prevent cardiac morbidity and mortality. It should be remembered that the most common cause of the etiology of cerebrovascular disease at a young age is cardiac pathologies and this information should not be ignored in the evaluation.

Keywords: Emergency, Cerebrovascular disease, Myocardial infarction,

Referanslar

1. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJ: Global and regional burden of disease and risk factors, 2001: systematic analysis of population health data. Lancet 2006;367:1747- 1757.

2. Kumral E: İnme Epidemyolojisi, Serebrovasküler hastalıklar, Balkan S (Ed), 2. Baskı, Güneş Kitabevi, 2005: 39-45.

3. Utku U, Çelik Y. Strokta Etyoloji, Sınıflandırma ve Risk Faktörleri. Serebrovasküler Hastalıklar, Edt. Balkan S. Güneş Kitapevi, Antalya, 2005. 57-71.

4.Fernández-Menéndez S, García-Santiago R, Vega-Primo A, et al. Cardiac arrhythmias in stroke unit patients. Evaluation of the cardiac monitoring data. Neurología. 2016; 31: 289-95.

5. Ruthirago D, Julayanont P, Tantrachoti P, Kim J, Nugent K. Cardiac Arrhythmias and Abnormal Electrocardiograms After Acute Stroke. Am J Med Sci. 2016; 351: 112-8

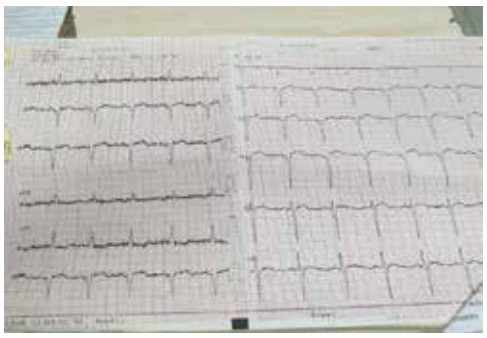
6. Prosser J, Mac Gregor L, Lees KR, et al. Predictors of early cardiac morbidity and mortality after ischemic stroke. Stroke. 2007; 38: 2295-302.

7. Pasquini M, Laurent C, Kroumova M. Insular infarcts and electrocardiographic changes at admission: results of the prognostic of insular cerebral infarcts study (PRINCESS). J Neurol. 2006; 253: 618-24.

8. Christensen H, Fogh Christensen A, Boysen G. Abnormalities on ECG and telemetry predict stroke outcome at 3 months. J Neurol Sci. 2005; 234: 99-103.

9. Silver FL, Norris JW, Lewis AJ, Hachinski VC. Early mortality following stroke: a prospective review. Stroke. 1984;15: 492–6.

10. Adams RJ, Chimowitz MI, Alpert JS, et al. Coronary risk evaluation in patients with transient ischemic attack and ischemic stroke: a scientific statement for healthcare professionals from the Stroke Council and the Council on Clinical Cardiology of the American Heart Association/Am Stroke Association. Stroke. 2003; 34: 2310 –22.



EVALUATION OF EFFECTIVENESS OF LACTATE CLEARANCE AND PERFUSION INDEX ON MORTALITY PREDICTION IN PATIENTS WITH DECOMPENSATED HEART FAILURE WHO WERE ADMITTED TO EMERGENCY DEPARTMENT WITH COMPLAINT OF SHORTNESS OF BREATH

Necati Akyılmaz[1] , Erdem Çevik[2]

[1]SBÜ Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi, Acil Tıp Kliniği
[2]SBÜ Sultan 2.Abdülhamid Han Eğitim Ve Araştırma Hastanesi

Background and aim: Acute heart failure means rapid onset or worsening of symptoms and/or signs of heart failure. It is a life-threatening medical condition requiring urgent evaluation and treatment, typically leading to urgent hospital admission. Our aim is; to evaluate the efficacy of lactate clearance and perfusion index on the 1-month mortality rate in patients with acute decompensated heart failure who were admitted to emergency service with complaints of shortness of breath.

Methods: This prospective observational study was conducted between 1 May 2017 and 31 October 2017 at the Emergency Department of Sağlık Bilimleri University Şişli Hamidiye Etfal Education Research Hospital, which is a third level emergency service. Among the patients presenting with complaints of shortness of breath in the emergency department, those considered to have a diagnosis of acute decompensated heart failure were accepted to the study. Age, vital findings, laboratory tests, perfusion index values, echocardiographic findings, the first lactate value, the third lactate value were noted in the data collection form. 3-hour lactate clearance was calculated and recorded. 1 month after the admission date; the patient's mortality status was screened via the death notification system.

Results:26 (%38.8) of 67 patients who were included in the study were men and 41 (%61.2) of them were women. 9 patients did not survive. The mean age of patients was 72.48 ± 12.87. Mean lactate values of patients were 2.90 ± 1.86 mmol/l in the 1st hour and 2.01 ± 1.06 mmol/l in the 3rd hour. Mean lactate clearance value was 16.88 ± 45.25. Mean perfusion index value in the first hour of admission to the emergency department was 2.98 ± 2.17; mean perfusion index value at the 3rd hour was 3.80 ± 2.62. When we grouped the patients as survivors and non-survivors, it did not reveal a significant difference between 1st hour lactate value, 3rd hour lactate value, lactate clearance value, 1st hour perfusion index value, 3rd hour perfusion index value.

Conclusions: In our study, the perfusion index and 3-hour lactate clearance values in patients with acute decompensated heart failure were not found to affect the one-month mortality.

Prepontine System Bleeding

Arife Aydan Ensari1 , Vildan Avcu,1 , Talha Özsu,1 , İsmail Enver Obuz1 , Utku Murat Kalafat1 , Serkan Doğan1

1Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Subarachnoid hemorrhage is a pathological condition in which blood diffuses into the subarachnoid space. Traumatic subarachnoid hemorrhage is a post-traumatic rupture of the intracranial arteries and bridging veins or in which blood is diffused into the subarachnoid space by diffusion from cortical contusions. The most important factor in etiology is traffic accidents, and it is more common in men in their forties. In our case, the patient was brought by 112 after falling off the scooter.

Case: A 30-year-old male patient was brought to us by 112 after falling off a scooter. He was unconscious when he arrived. He was disorientated and had limited cooperation, and GCS was evaluated as 11. Vital signs were stable. In his neurological examination, there was no motor sensory deficit, bilateral light reflexes exist, and the pupils were bilaterally isochoric. In his physical examination, other system examinations were normal except for ecchymosis in the right periorbital area and abrasions on the face and arms. In our patient's brain CT, hemorrhage was observed in the parenchyma between the lateral ventricles . In our patient who was consulted with neurosurgery, emergency operation was not considered and intensive care follow-up was recommended. Our patient was admitted to the intensive care unit, as no additional pathology was detected in the emergency service follow-up and examinations.

image-1

Conclusions: In acute cases, early diagnosis and treatment method reduces the rate of death or permanent neurological deficit. 69 million people have traumatic brain injury each year, and traumatic brain injury is the cause of subarachnoid hemorrhage. Traumatic sah has been identified as an adverse prognostic factor leading to progressive neurological deterioration and increased morbidity and mortality. Like aneurysmal subarachnoid hemorrhages, traumatic subarachnoid hemorrhages are evaluated according to the amount and distribution of blood on CT.Its treatment is mainly directed towards the complications of bleeding. In patients with traumatic subarachnoid hemorrhage, it is thought that the patient's age, low entry GCS, localization in the fissures or excessive clot thickness, co-lesion such as acute subdural hematoma or intracerebral hematoma affect the prognosis negatively. Although traumas with high energy cause this clinic, we may encounter such lethal clinics in traumas with low energy as in our case. Every trauma case should be handled and evaluated with the worst case scenario.

Anahtar Kelimeler : intracerebral hematoma , intracranial pressure , subarachnoid hemorrhage , trauma

GIANT BALLOONS IN THE HEAD

Ali Kablan

LOGIN

Aneurysms are pathologies that occur with the disruption of the arterial wall, often at the branching points of the vascular structures in the brain. Aneurysms larger than 2.5 cm are defined as giant aneurysms. It has been reported that they constitute 2-5% and 2-13% of intracranial aneurysms. Its incidence among all aneurysms is 4-5%. It usually presents around 50-70 years of age and is more common in women.The first complaints of the patients are mostly due to thromboembolism or because of the mass effect. Subarachnoid hemorrhage is observed in approximately 20% of patients.Intraluminal thrombus formation is common. Giant aneurysms occur in 34-57% internal carotid artery, 24-60% posterior circulation, 10% anterior cerebral artery and 9% middle cerebral artery (1,2,3).

CASE

A 72-year-old female patient was brought to the emergency room due to speech disorder and sleepiness that started today. Arterial blood pressure: 219/139 mmHG, heart rate: 108/min, saturation: 96%. Consciousness was sleepy, glasgow coma scale (GCS) was 13 points. Blood sugar; It was 170 mg/dL. In the patient's history, it was learned that a giant aneurysm was detected in the brain by neurosurgeon 2 weeks ago and he recommended an operation. However, the patient did not accept the operation. In the brain tomography of the patient, an aneurysm sac with dimensions of 64x60x52 mm in the widest part of the median cerebral artery (MCA) trace on the left and heterogeneous areas suggestive of active hemorrhage was noted. At this level, the parenchyma and the left lateral ventricular body part are clearly depressed. Near the aneurysm, subarachnoid hemorrhagic densities were observed in the right frontotemporal between the cortical sulci, in the interhemispheric sulcus, in the suprasellar cistern, in the perimesencephalic cisterns and in the left Silvian fissure. The image was consistent with a left MCA giant aneurysm. A 9 mm shift to the right is observed in the midline structures. He was intubated due to unconsciousness after imaging. The patient who developed cardiac arrest in the follow-up in the red area was considered to be dead after the intervention.

CONCLUSION

Intracranial giant aneurysms are pathologies with high mortality. Aneurysm hemorrhages should be kept in mind in the emergency department, in patients who suddenly turn unconscious while they are conscious. High blood pressure, on the other hand, acts as a factor increasing mortality in such patients.

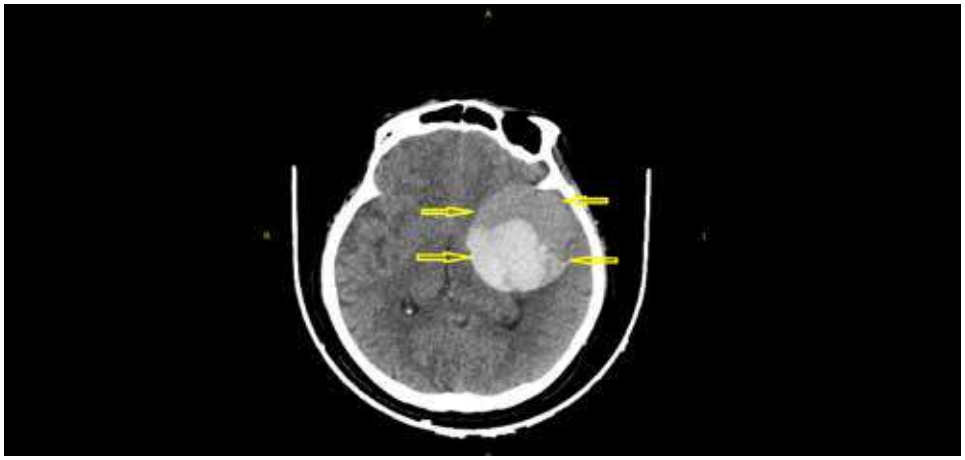


Figure 1. A giant aneurysm in the MCA trace in the area indicated by the yellow arrows on the left, suggestive of active hemorrhage inside

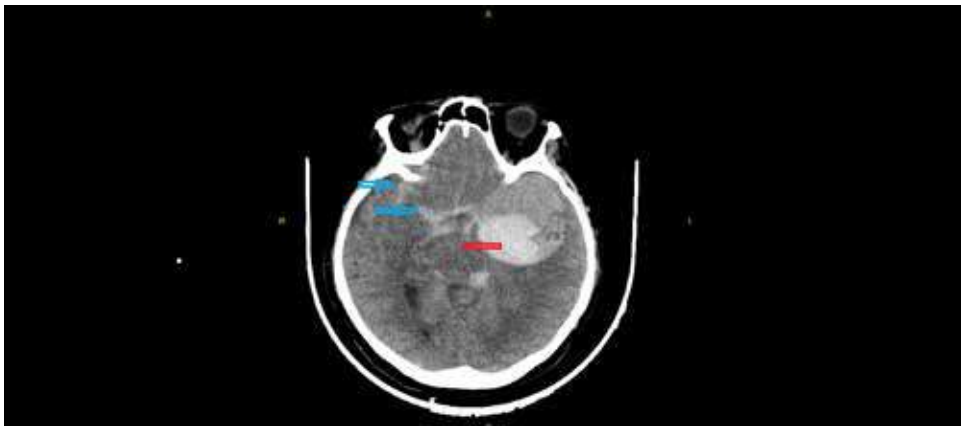


Figure 2. Subarachnoid hemorrhagic densities were observed in the right frontotemporal area in the area indicated by the blue arrows on the right. In the area pointed by the red arrow, it was observed that the midline structures shifted to the right.

RESOURCE

1.Harrigan, M. R., & Deveikis, J. P. (2009). Handbook of cerebrovascular disease and neurointerventional technique. Springer Science & Business Media.

2.Morris, P. (2007). Practical neuroangiography. Lippincott Williams & Wilkins.

3.Sluzewski, M., Menovsky, T., Van Rooij, W. J., & Wijnalda, D. (2003). Coiling of very large or giant cerebral aneurysms: long-term clinical and serial angiographic results. American Journal of Neuroradiology, 24(2), 257-262.

Acute Brachial Arterial Embolism with Coexisting Incidental Pulmonary Embolism: A Case Report

Efe Kanter[1], Osman Sezer Çınaroğlu[1]

[1]Izmir Katip Celebi University Ataturk Training and Research Hospital, Emergency Medicine Department

INTRODUCTION

Acute extremity ischemia is defined as a sudden decrease in extremity perfusion and the incidence is approximately 1.5 cases per 10,000 people per year.(1) Cases of acute thromboembolism in the arteries of the upper extremities can be seen predominantly in patients with atrial fibrillation; rare but requires prompt diagnosis and treatment. Treatment can be conservative or surgical, but the surgical treatment is considered superior because the symptoms may persist after conservative treatment.(2,3)

Major thromboembolism of the extremity arteries is usually easy to diagnose. Sudden extremity ischemia symptoms are associated with a clinical picture abbreviated as "6P" as pulselessness, pain, pallor, paresthesia, paralysis and poikilothermia.(4)

Incidentally detected cases of pulmonary embolism (PE) can be seen on routine CT scans, occurring in 1.1% of coronary CT scans and 3.6% of oncologic CT scans.(5) Despite this high frequency, the optimal management of incidental PE has not been addressed in clinical trials and remains controversial. Most incidental PE cases can be managed with outpatient anticoagulant therapy with fewer complications, since the embolism burden is much lower than in symptomatic PEs.(6)

Here, we aimed to present a young male case who applied to the emergency department with the complaint of right arm pain. While being investigated for acute arterial embolism, patent foramen ovale and bilateral acute pulmonary embolism were detected incidentally.

CASE REPORT

A 48-year-old male patient with no known chronic disease or drug use applied to the Izmir Katip Çelebi University Atatürk Training and Research Hospital emergency department with the complaints of severe pain, numbness and weakness in the right arm that started suddenly 1 hour before his arrival. In the physical examination of the patient who did not have accompanying chest pain, shortness of breath or palpitation, pulses could not be detected in the brachial artery in the right upper extremity and in the radial artery in its distal part; upper extremity was pale, cold and painful.

The patient was immediately consulted to cardiovascular surgery with the preliminary diagnosis of acute brachial artery thromboembolism. The CT angiography showed an appearance compatible with thrombus in the brachial artery and radial artery, and a filling defect in the distal part was observed.

The patient did not describe any respiratory distress, chest/back pain during the follow-up in the emergency department. The patient's ECG was in sinus rhythm, and the oxygen-free saturation of the patient was between 91-92, and in the pulmonary artery CT angiography taken, acute thrombus extending to the lobes and segment branches in the pulmonary turuncus and both main pulmonary arteries. In addition, a 2 cm diameter defect consistent with ASD was observed in the interatrial septum.

In the echocardiography performed under emergency conditions by the cardiologist, who was requested for paradoxical embolism; the right ventricle was dilated, and there was a drop-out appearance in the interatrial septum. In contrast echocardiography, many microbubble transitions from right to left were observed with valsalva. Paradoxical embolism due to Patent Foramen Ovale (PFO) and thrombus passage was considered in the patient

within the present findings and subsequent elective TEE findings.[7]

The pulse in the brachial and radial arteries became palpable after the brachial embolectomy applied to the patient who was taken to emergency operation by the cardiovascular surgery team. The patient, who did not describe dyspnea with the anticoagulant treatment, was discharged from the service with good general condition, with recommendations for outpatient control. In the pulmonary artery CT angiography taken during the follow-up of the patient, no filling compatible with thromboembolism was detected.

DISCUSSION

Acute arterial thromboembolism should be diagnosed very quickly in emergency services and cardiovascular surgery should be contacted as soon as possible for surgical treatment if necessary. Timing is one of the most important factors determining morbidity, as it can lead to serious complications in case of delay in diagnosis or treatment.

Multiple arterial embolism cases that can be detected simultaneously are frequently reported in the literature and should be investigated in every arterial embolism case with extra symptoms. Although it is rare, the possibility of accompanying paradoxical embolism should also be considered, and treatment should not be delayed if it is detected.

REFERENCES

[1] Norgren L, Hiatt WR, Dormandy JA, et al. Inter-Society Consensus for the Management of Peripheral Arterial Disease (TASC II). J Vasc Surg. 2007;45 Suppl S:S5-S67. doi:10.1016/j.jvs.2006.12.037

[2] Harnarayan P, Islam S, Harnanan D, Bheem V, Budhooram S. Acute Upper Limb Ischemia: Prompt Surgery and Long-Term Anticoagulation Prevent Limb Loss and Debilitation. Vasc Health Risk Manag. 2021;17:489-495. Published 2021 Aug 16. doi:10.2147/VHRM.S321953

[3] Wirsing P, Andriopoulos A, Bötticher R. Arterial embolectomies in the upper extremity after acute occlusion. Report on 79 cases. J Cardiovasc Surg (Torino). 1983;24(1):40-42.

[4] Creager MA, Kaufman JA, Conte MS. Clinical practice. Acute limb ischemia. N Engl J Med. 2012;366(23):2198-2206. doi:10.1056/NEJMcp1006054

[5] Klok FA, Huisman MV. Management of incidental pulmonary embolism. *Eur Respir J*. 2017;49(6):1700275. Published 2017 Jun 29. doi:10.1183/13993003.00275-2017

[6] den Exter PL, Kroft LJ, van der Hulle T, Klok FA, Jiménez D, Huisman MV. Embolic burden of incidental pulmonary embolism diagnosed on routinely performed contrast-enhanced computed tomography imaging in cancer patients. *J Thromb Haemost*. 2013;11(8):1620-1622. doi:10.1111/jth.12325

[7] Windecker S, Stortecky S, Meier B. Paradoxical embolism. J Am Coll Cardiol. 2014;64(4):403-415. doi:10.1016/j.jacc.2014.04.063

A Rare Case; Guillain-Barré Related With Covid 19

Gokhan Cabar[1], İdris Arslan[1], Murside Yayli[1], Nedim Uzun[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training And Research Hospital

Background and aim: Guillain Barré Syndrome(GBS) is the most common cause of acute flaccid paralysis.Most patients present with commonly upper respiratory tract infection,before the onset of progressive motor weakness.GBS is mostly caused by Campylobacter jejuni.During covid19 pandemic starts there is an increasing number of neurological complications recognized with COVID-19 including patients with GBS.In this study,we present a patient with GBS possibly caused by covid19.

Case: A 51 year old male patient applied to our emergency trauma department with the complaint of falling down at home.All vital signs were stable on the arrival.In his history, it was found that the patient felt infirmity in his legs while trying to get out of the bed.In the physical examination,bilateral muscle strength in the lower extremities was 2/5 and bilateral muscle strength in the upper extremity was 4/5.Other physical examination findings were normal.The acute neuropathology was not detected in the cranial CT and diffusion MRI.In his thorax CT,bilateral ground glass images were detected and upon the CT results,the patient's history was inquired again,it was found that the patient had diarrhea and cough for one week.EMG was performed on the patient because it was assumed that secondary acute polyneuropathy to viral infection is in place.Since left ulnar flexor response could not be obtained in EMG and the persistence of right peroneal nerve flexor response was found to be decreased,and these findings were thought to be early signs of acute polyneuropathy,the patient was transferred to the neurology clinic.Serum immune electrophoresis,stool parasitology tests and serum serology tests were performed in the neurology clinic and no etiological agent was found to explain the current symptoms.It was thought that covid19 may be a factor in the etiology of acute polyneuropathy of the patient whose Covid19 pcr test was positive.The patient,who had treatment for the etiology and GBS,was discharged after his full recovery.

Conclusions: In patients whose fall mechanism is unknown,all physical examination should be performed and additional complaints of the patient should be adressed.Cerebral causes such as stroke should be excluded in patients.Apart from the widely known factors,it should be taken account that covid19 might also be involved in the etiology of GBS.

Anahtar Kelimeler : acute polyneuropathy , covid 19 , gbs , guillian barre , sars-ncov-2

References:

1. Shahrizaila, N. (2021, March 27). *Guillain-BarrÃ© syndrome*. The Lancet. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00517-1/fulltext

2. Zuberbühler, P., Conti, M. E., León Cejas, L., Maximiliano González, F., Bonardo, P., Miquelini, A., Halfon, J., Martínez, J., Gutiérrez, M. V., & Reisin, R. C. (2021). Síndrome de Guillain-Barré asociado a infección por COVID-19: revisión de casos publicados. *Revista De Neurología*, *72*(06), 203. https://doi.org/10.33588/rn.7206.2020487

A Rare Case: Sick Sinus Syndrome

Enad Kenan, Melih Yüksel, Umut Ocak, Halil Kaya, Mehmet Oğuzhan Ay, Ebru Çetin Kenan

University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim

It is important to be careful about the differential diagnosis of clinically similar but not epileptic features that can be confused with epilepsy or epileptic seizures. Epilepsy can manifest in many different clinical forms. Its clinical features, etiology, severity, prognosis, and other accompanying neurological findings are very variable, so differential diagnosis may be difficult. The aim of this case report is to emphasize the importance of good anamnesis, physical examination and monitoring in all epileptic seizure patients admitted to the emergency department. (1-3)

Case

A 77-year-old female patient. The patient had a history of diabetes mellitus, atrial fibrillation and epilepsy. The patient was brought to the emergency room by 112 due to epileptic seizure. The patient was not in postictal appearance when brought. It was learned that the seizure of the patient who did not have incontinence was tonic-clonic lasting 3-4 seconds. According to the relatives of the patient who had been followed up in an external center for 1 year due to epilepsy, her seizures were similar to previous ones, but she had not had any seizures in the last 2-3 months. Today, though, her she suffered up to 10 seizures, for which 112 was called. It was further learned that the patient used her medications regularly and that she had additional complaints (dysuria, cough, diarrhea, history of fever, etc.). Blood pressure: 110/70 mm/Hg; Pulse: 118/minute; Fever: 36,1 0C; Blood Sugar: 163; GCS: 15; oriented, cooperative, and physical examinations were normal. The patient, who was monitored and followed up and treated, had epileptic seizures again, as reported by her relatives. Upon examination, asystole lasting for about 6 seconds was observed in the patient's rhythm during the seizure, in addition to spontaneous sinus rhythm return (Figure 1). The patient was diagnosed with sick sinus syndrome. The patient who was consulted to the cardiology was evaluated as sick sinus syndrome and was admitted to the Coronary Intensive Care Unit (CICU). The coexistence of the patient's seizures and asystole rhythm was observed 3 more times in the emergency department follow-ups, and it was understood that the reason for the patient's contraction was asystole. After staying in the CICU for 2 days, she was followed up in the cardiology service. The patient, who had cardiac paced by the cardiology department, was discharged after 1-week hospitalization with outpatient control, and it was seen that the patient's seizures subsided.

Figure 1. The rhythm seen on the monitor

Conclusions

The differential diagnosis of epileptic seizures varies according to age and the clinic of the seizures. Generally, non-epileptic seizures (pseudo seizures) are grouped under two headings as physiological and psychogenic. Correctly distinguishing pseudo seizures from epileptic seizures is very important for correct diagnosis and therefore correct treatment. It is known that patients with pseudo seizure are exposed to unnecessary antiepileptic treatment and suffer iatrogenic drug side effects.

References

1. Adán V, Crown LA. Diagnosis and treatment of sick sinus syndrome. Am Fam Physician 2003; 67: 1725- 1732.

2. Keller KB, Lemberg L. The sick sinus syndrome. Am J Crit Care 2006; 15: 226-229.

3. Sigurd B, Sandøe E. Management of Stokes-Adams syndrome. Cardiology 1990; 77: 195-208.

Spontaneous Spinal Epidural Hematoma

Fatma Betül Çalışkan, Melih Yüksel, Mehmet Oğuzhan Ay, Halil Kaya, Umut Ocak, Enad Kenan

University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim:

Spontaneous Spinal Epidural Hematoma (SSEH), compressing the spinal cord and leading to acute neurological deficits, is a rare important condition. The incidence of SSEH is considered to be 0.1 per 100,000 per year. The source of bleeding is usually internal posterior vertebral venous plexus. The exact etiology of SSEH remains unknown in 40–50% of the patients, although vascular malformations, coagulopathy, epidural catheter and surgical trauma, anticoagulants, and the conditions causing increased intrathoracic intra-abdominal pressure such as cough and Valsalva maneuver have been reported as the predisposing factors for SSEH. Clinical manifestations of the SSEH are nonspecific. Therefore, it should be kept in mind especially in patients presenting with neurological deficits and a sudden onset of neck or back pain this symptoms depending on bleeding level (1-2).

Case:

A previously healthy 39-year-old male patient presented to our emergency department with back pain, There was no recent medical history of trauma, infection, surgery, or anticoagulant use. The initial laboratory tests of blood, such as blood routine test, liver function test, blood creatinine, electrolytes, activated partial thromboplastin time, and international normalized ratio, were within normal limits. The blood pressure was normal. In the 3rd hour of the patient's follow-up in the emergency room, weakness in the legs was observed. In his repeat physical examination, it was observed that he was paraplegic, anesthetic from T4 level, anal sphincter tone disappeared, and deep tendon reflexes could not be obtained. MRI of the cervical and dorsal spines revealed a posterior epidural hematoma 42x9 mm from the C7 to T4 level with spinal cord compression(Figure 1-2). The patient was hospitalized in the brain surger department after diagnosis of SSEH and an emergency posterior approach decompression bilateral laminectomy and hematoma evacuation operation was performed from C7 to T4 .

Figure 1. Cranial MR imaging with contrast T2 flair section

Figure 2. Cranial MR imaging with contrast T1 flair section

Conclusions:

Clinical manifestations of the SSEH are nonspecific. Therefore, it should be kept in mind especially in patients presenting with neurological deficits or a sudden onset of neck or back pain. Early diagnosis of these patients and rapid surgical intervention are of great importance in preventing permanent sequelae (3).

References:

1. Raj R, Seppala M, Siironen J. Spontaneous spinal epidural hematoma: A surgical case series of ten patients. World Neurosurg 2016; 93: 55-59.

2. Sandvig A, Jonsson H. Spontaneous chronic epidural hematoma in the lumbar spine associated with Warfarin intake: A case report. Springerplus 2016; 5: 1832.

3. Holtås S, Heiling M, Lönntoft M. Spontaneous spinal epidural hematoma: findings at MR imaging and clinical correlation. Radiology 1996;199:409-13.

S- 2315

A Rare Case: Ramsay Hunt Syndrome

Merve Dayı, Melih Yüksel, Mehmet Oğuzhan Ay, Halil Kaya, Umut Ocak, Mustafa Tolga Özdal

University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Ramsay Hunt Syndrome (RHS) (Herpes zoster oticus) is a cranial polyneuropathy that develops with recurrent activation of varicella zoster virus. In order of frequency, 7th, 8th, 9th, 5th, 10th, 6th cranial and cervical nerve involvements can be seen. In this syndrome, 7th cranial nerve involvement constitutes 3-12% of all facial paralysis cases. The diagnosis is made with earache, vesicular rash around the auricle and facial paralysis with sequelae. For this reason, skin lesions in the head and neck region should be followed closely, considering RHS and the neurological symptoms that may develop due to it.

Case

A 68-year-old male patient presented to the emergency department with complaints of inability to close his left eye and recession in his lip for two days. The patient's vitals were normal and his ECG was in normal sinus rhythm. In the patient's neurological examination; there was effacement in the left nasolabial groove and limited left eye movements (Figure 1). Other than that, his neurological examination was normal. It was observed that the patient had herpetic lesions on the neck and behind the left ear that started 1 week ago (Figure 2). No acute pathology was detected in the patient's cranial imaging and laboratory results. The patient was diagnosed with peripheral facial paralysis due to Varicella zoster, and medical treatment was arranged and he was discharged with recommendations.

Discussion

For the diagnosis of RHS, two of the three criteria, such as facial paralysis, vesicular eruptions in the ear, and vestibulocochlear dysfunction, must be met. Facial paralysis in RHS is more serious than Bell's palsy and has a lower reversal rate. In Bell's palsy, 90% of patients recover within a month. In RHS, only 10% of patients with complete loss of facial functions have complete recovery, while this rate is approximately 66% in partial losses. The most effective treatment method in RHS is the combined use of antivirals to prevent the replication of varicella zoster viruses and systemic steroids due to their anti-inflammatory and antiedematous effects. Initiation of antiviral agents such as acyclovir, valacyclovir, famciclovir, especially in the first 72 hours, is important for the effectiveness of the treatment. In this case report, a case with cervical involvement, which is very rare, unlike the classical involvement in RHS, is presented. In patients with painful vesicles diagnosed with herpes zoster, RHS that may develop even with antiviral therapy should be kept in mind and closely monitored.

A Rare Case of Toxoplasma Encephalitis

Cengizhan Keski, Melih Yüksel, Mehmet Oğuzhan Ay, Halil Kaya, Umut Ocak, Enad Kenan

University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Introduction

As it is known, Human Immunodeficiency Virus (HIV) positive cases are immunosuppressed and open to infections. Toxoplasma encephalitis can be seen in HIV-positive patients who have not yet reached the Acquired Immunodeficiency Syndrome (AIDS) stage. Lesions involving the Central Nervous System may be HIV-related abscesses, as well as conditions such as meningitis and encephalitis caused by opportunistic pathogens. In this presentation, we will report a case who was treated for active tuberculosis and who was diagnosed with HIV in the emergency department and was operated on for toxoplasma encephalitis(1).

Case

A 28-year-old male patient was admitted to the emergency department with a generalized tonic-clonic seizure. It was learned that the patient was started on tuberculosis treatment 2 months ago and followed up. He had no history of drug use or substance abuse, except for antituberculosis drugs. There was no feature in his family history either. In his physical examination, his vital signs were stable, his general condition was good, GCS: 15, systemic examination was normal. The patient's WBC: 6520, neutrophil:3040, lymphocyte: 2880, monocytes: 440, HB:13.4g/dL, PLT:275000. Cranial computed tomography (CT) was performed in the patient to rule out a central pathology. On CT, a hypodense area, which may be significant in terms of edema-infarct, was detected in the white matter at the level of the right frontoparietal junction (Figure 1). On contrast-enhanced cranial magnetic resonance (MR) imaging, a 12x6 mm sized ovoid lesion with a subcortical location in the right parietal lobe at the level of convexity, centrally hypointense on T1 examination, peripheral isointense, T2 and FLAIR examinations showed a central hypointense, peripheral isointense post-contrast mass. Around the frontoparietal lobes, a prominent area of edema was accompanying (abscess?, glial tm?, metastasis?) (Figure 2-3). The patient was admitted to Neurosurgery.

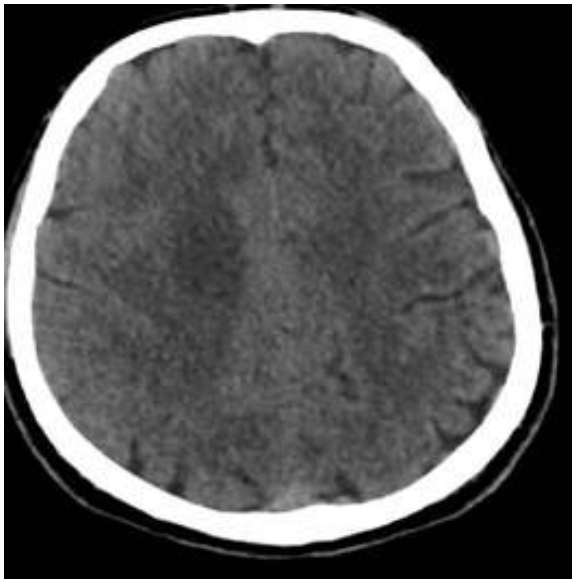


Figure 1: Cranial computed tomography imaging

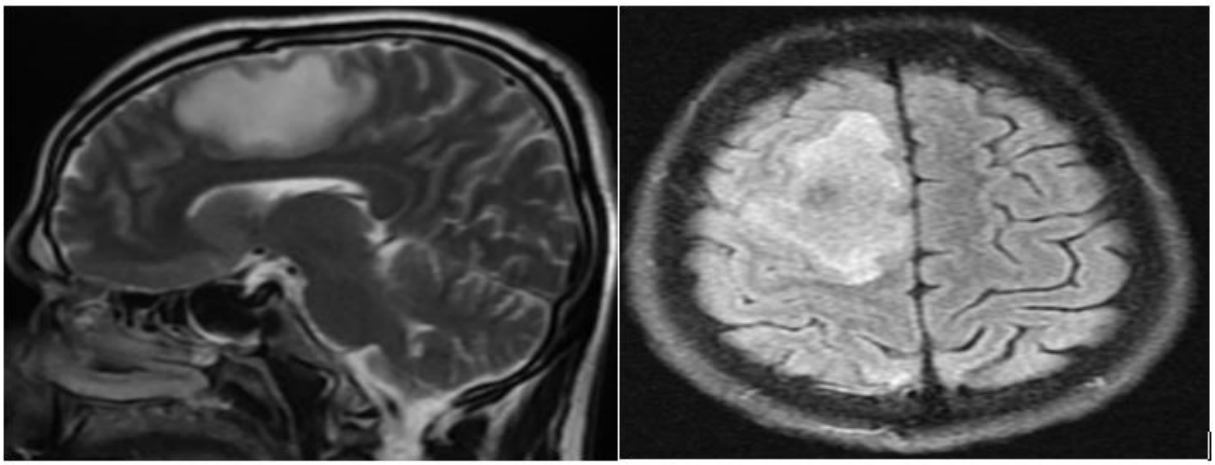


Figure 2: Cranial MR imaging with contrast T2 flair section

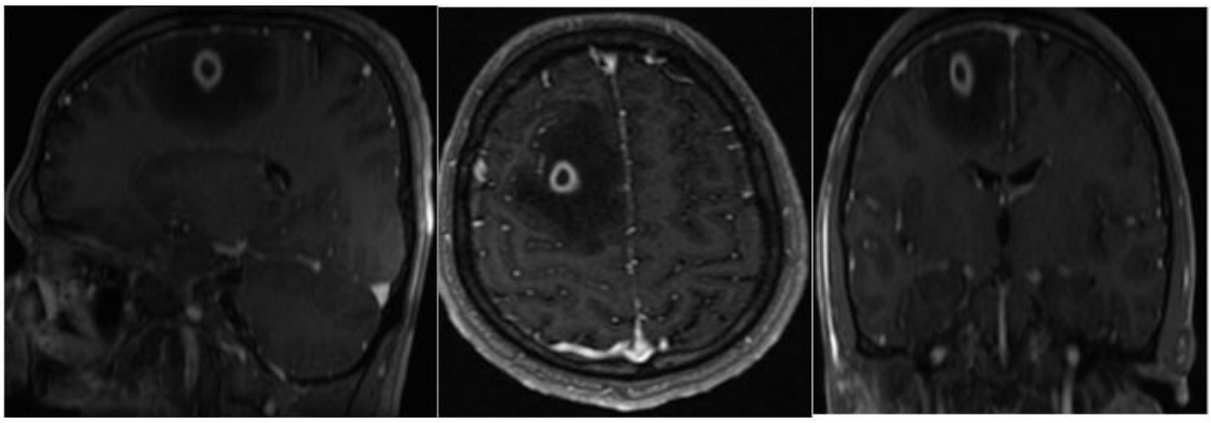


Figure 3 Cranial MR imaging with Contrast C Bravo section

Conclusion

Toxoplasma is one of the leading causes of central nervous system involvement in AIDS patients. It is caused by Toxoplasma gondii. Toxoplasma is most commonly caused by reactivation of latent tissue cysts as a result of progressive loss of cellular immunity in patients with reduced CD4+ T lymphocyte count. Toxaplasma is seen in patients who have not received antiretroviral therapy (ART) or who do not use ART appropriately(2-3). When the disease is treated, almost complete recovery occurs, and untreated cases are fatal.

Keywords: AIDS, emergency department, toxaplasma encephalitis, , HIV-positive

References

1. İnal AS, Nazik S, Candevir A, Kurtaran B, Taşova Y, Aksu HSZJCMJ. Toksoplazma ensefaliti: serebral kitle ile başvuran HIV/AIDS olgusu. 2017;42(1):184-8.

2. Siddiqi OK, Koralnik IJ. Neurologic diseases caused by human immunodeficiency virus type 1 and opportunistic infections. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases: Elsevier Inc; 2014. p. 1574-89. e4.

3. Luft BJ, Hafner R, Korzun AH, Leport C, Antoniskis D, Bosler EM, et al. Toxoplasmic encephalitis in patients with the acquired immunodeficiency syndrome. 1993;329(14):995-1000.

If You Have Ankylosing Spondylitis Do not Even Think of Falling

Murside Yayli[1] , Mustafa Yasin Okten[1] , Sevilay Biyikli[1] , Gokhan Cabar[1] , Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background: Ankylosing spondylitis (AS) is a chronic, inflammatory disease of the axial spine that can manifest with various clinical signs and symptoms. Chronic back pain and progressive spinal stiffness are the most common features of the disease. (1)

Scapula fracture generally occurs as a result of high-energy trauma and is usually seen together with significant organ or system injuries. (2) Traffic accidents and accidental falls comprise the most frequent causes of clavicle fractures. (3)

We illustrate the case of an unstable fracture of scapula, clavicula and multiple costas in an ankylosing spondylitis (AS) patient after minor trauma.

Case description: A 56-year-old man (diagnosed as ankylosing spondylitis) fell backwards from the standing motorcycle. His complaint was pain in the right shoulder and right side of his back.

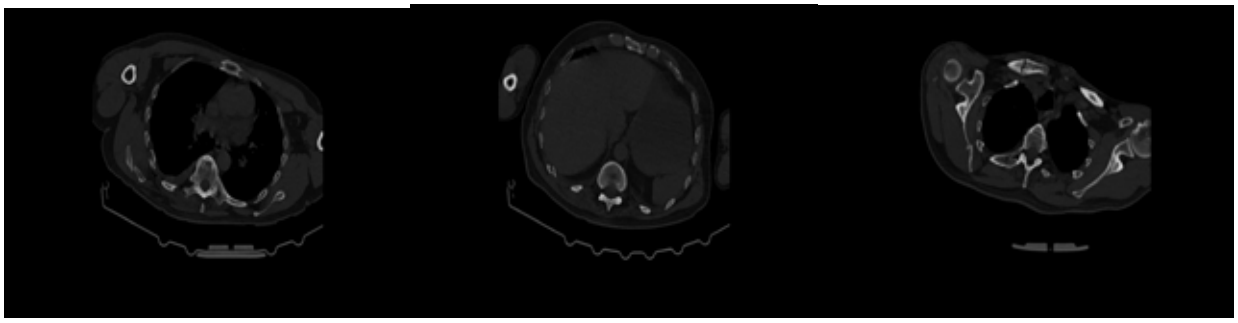
In the physical examination there was widespread severe pain in the back on the right side behind the chest. Also he was not able to move his shoulder because of severe pain. CT was requested for a detailed examination, but due to AS and back pain, the patient could not lie on his back for CT scan. In his X-ray examination, deplaced right costal fractures and clavicle fractures were detected After 5 mg Morphine infusion, CT taken.

In CT imaging, in lateral and posterior arches of the 5, 6, 7, 8, 9 and 10th costas, corpus of the right scapula, archus of the right clavicle; deplaced fractures were seen.

In the right hemithorax, a 15 mm thick hemothorax was seen. But no pneumothorax was detected.

In further examination, any pathological finding in abdomen and vertebrae was not detected.

Result: The patient was referred to another healthcare facility for follow-up by the thoracic surgery department.



Discussion: This case demonstrates the severity of injury after minor trauma in the context of ankylosing spondylitis. This case shows the importance of clinical suspicion of such injuries allowing the early diagnosis and treatment and reduced complications.

Keywords: Ankylosing Spondylitis, Trauma in Ankylosing Spondylitis, Clavicle Fracture, Scapula Fracture, Costal Fracture

References:

1. Wenker KJ, Quint JM. Ankylosing Spondylitis. 2022 Apr 9. In: StatPearls [Internet]. Treasure Island (FL):

StatPearls Publishing; 2022 Jan–. PMID: 29261996.

2. Algan Kaya H, Eroğlu O, Günal N, Coşkun F, Deniz T. The relation between scapula fracture and the severity of trauma in blunt thoracic trauma. Turk J Med Sci. 2018 Dec 12;48(6):1228-1233. doi: 10.3906/sag-1802-149. PMID: 30541251.

3. Amer KM, Congiusta DV, Suri P, Choudhry A, Otero K, Adams M. Clavicle fractures: Associated trauma and morbidity. J Clin Orthop Trauma. 2020 Aug 26;13:53-56. doi: 10.1016/j.jcot.2020.08.020. PMID: 33717875; PMCID: PMC7919969.

A Gunshot That Bounced Off From Cervical Vertebrae

Murside Yayli[1], Gulbahar Guler Orucoglu[1], Sevilay Biyikli[1], Mustafa Yasin Okten[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Introduction: Vertebral and spinal cord injuries owing to firearms have a high rate of morbidity and mortality, and are most commonly seen in young males.(1) Owing to close proximity to the spine and vertebral arteries, gunshot injuries of the cervical vertebra can be life-threatening.(2)

In this case, we present an awkward routing gunshot injury which has an entrance from the nape, has a trajectory through cervical vertebrae and the right lung.

Case: A 17 years old male admitted with a gunshot from the nape of the neck. When he was brought to the hospital he was awake and complained of nape pain. In neurologic examination, GCS was 15 and had no deficit except for paresis at the distal of the right elbow. In abdominal examination no pathological finding was present.

In imaging, fractures were detected in the lamina of C4 and vertebral sulcus of C5, transverse processes in C6, C7. In addition, pneumothorax and hemothorax in the right lung was seen. Also a lead core was seen in the posterobasal supradiagraphmatic area of the right lung. Seen that the trajectory of the bullet deviated by collision with cervical vertebrae.

No neurosurgical intervention was considered necessary. A chest tube was inserted due to hemothorax and the patient was hospitalized in the general surgery ward.

Result: For neurosurgical evaluation by MR imaging, on the 4th day, thoracostomy and the removal of the lead core which was free in the supra diaphragmatic sinus was performed. During the follow-up in the ward, the patient was stabil. 8 days after the thoracostomy, the chest tube was removed and the patient was discharged.

Discussion: The patients that are hit by gunshot must be evaluated systemically. Also due to inpredictability of route of the lead, the imagings should include the surrounding body parts, not only the injury area.

Keywords: Bounced lead, Gunshot, Hemothorax, Nape injury, Cervical vertebral fracture

References:

1. Sidhu, Gursukhman S. MBBS1; Ghag, Arvindera MD2; Prokuski, Vanessa BA3; Vaccaro, Alexander R. PhD1, a; Radcliff, Kristen E. MD1. Civilian Gunshot Injuries of the Spinal Cord: A Systematic Review of the Current Literature. Clinical Orthopaedics and Related Research: December 2013 - Volume 471 - Issue 12 - p 3945-3955 doi:10.1007/s11999-013-2901-2

2. Mirovsky Y, Shalmon E, Blankstein A, Halperin N. Complete paraplegia following gunshot injury without direct trauma to the cord. Spine (Phila Pa 1976). 2005 Nov 1;30(21):2436-8. doi: 10.1097/01.brs.0000184588.54710.61. PMID: 16261122.

A Fentanyl Overdose Case due to Fentanyl Patches

Murside Yayli[1] , Gokhan Cabar[1] , Gulbahar Guler Orucoglu[1] , Nedim Uzun[1] , Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Introduction: Fentanyl is an opioid which is a synthetic narcotic analgesic with strong analgesic effect.(1) Due to its rapid action and a short duration of action in the body, it has been used to control acute pain. The transdermal affecting fentanyl containing flasters that are known as Fentanyl patch has many side-effects, such as deterioration of the central nervous system, respiratory depression, hypotension, hypothermia, bradycardia, and flaccid muscles. Fentanyl patches are a common reason for fentanyl intoxication because of its noninvasiveness and simple method of administration. This also results in abuse for managing acute pain.

Case: A-26-year-old woman working as a nurse in a health facility was found unresponsive after sleeping in bed. It's stated that she was complaining of a severe headache before sleeping. First examination performed at her house by paramedics. On her body multiple fentanyl patches found (3*75 mcg/hour, 1*50 mcg/hour, 3*25 mcg/hour transdermal flasters). Due to respiratory failure, the patient was intubated by paramedics and brought to our emergency service. In examination, the pupils were pinpoint pupils. With high suspicion of opioid intoxication Naloxone was administered. For elimination of acute cranial pathologies which would have been the reason for the severe headache and also loss of consciousness, cranial imagings performed. There was no pathological result in imagings. After the evaluations, the clinical picture was attributed to fentanyl overdose. The patient was admitted to the intensive care unit ICU.

Conclusion: The patient was admitted to the intensive care unit. After 1-day follow up in the ICU, the patient was extubated and discharged.

Discussion: In emergency services, the physicians should consider opioid intoxication when patients are admitted with mental state changes, respiratory depression, miosis. If there is any fentanyl patch on the patient's skin, it must be removed as soon as possible. Conservative treatments such as mechanical ventilation and naloxone injections should provide a better prognosis, especially when administered rapidly.

Keywords : fentanyl overdose, fentanyl patch, opioid overdose, pinpoint pupils

References:

1. Poklis A. Fentanyl: a review for clinical and analytical toxicologists. J Toxicol Clin Toxicol. 1995;33(5):439-47. doi: 10.3109/15563659509013752. PMID: 7650768.

2. Yang Q, Xie DR, Jiang ZM, Ma W, Zhang YD, Bi ZF, Chen DL. Efficacy and adverse effects of transdermal fentanyl

and sustained-release oral morphine in treating moderate-severe cancer pain in Chinese population: a systematic review and meta-analysis. J Exp Clin Cancer Res. 2010 Jun 9;29(1):67. doi: 10.1186/1756-9966-29-67. PMID: 20529380; PMCID: PMC2904719.

Features of Hypoglycemia Induced Loss of Conciousness in Emergency Service

İlhami Demirel (1) Mehmet Özgür Erdoğan (2)

1) Department of Emergency Medicine, University of Health Sciences, Haseki Training and Research Center, Istanbul, Turkey

2) Department of Emergency Medicine, University of Health Sciences, Bakırköy Sadi Konuk Training and Research Center, Istanbul, Turkey

INTRODUCTION

Hypoglycaemia is a common cause of emergency department (ED) visits and is usually associated with diabetes and its treatment. Hypoglycaemic episodes can cause vascular events such as severe morbidity, stroke, acute myocardial infarction, and ventricular arrhythmias [1]. Diabetes mellitus (DM) is one of the most serious problems faced by healthcare systems because of its high economic burden and its widespread prevalence worldwide. It is believed that, in 2030, the expenditures of diabetes will be % 30- 34 higher than 2010 [2]. Hypoglycaemia is generally considered to be a common and serious complication in diabetes mellitus patients who are receiving insulin therapy [3]. However, the importance of hypoglycaemia in patients who are on oral antidiabetic medication is not recognized to the same extent [4].

Neuroglycopenic symptoms, including confusion, fatigue, weakness, loss of consciousness, unsteady gait, loss of coordination, and seizures, are more prevalent in the elderly population and may increase their risks of falling. The strategies needed to protect against hypoglycemia in such cases may be different from those for other cases. The frequency of severe hypoglycaemia in the Type 2 diabetic patient population worldwide has been reported to be 0.02 per year [1].

This study investigated the features of both advanced hypoglycaemia causing loss of consciousness and milder levels of hypoglycaemia at hypoglycaemia-related ED visits

MATERIALS AND METHODS

This study retrospectively analysed patients who were admitted to the ED of Haydarpaşa Numune Training and Research Hospital between January 2010 and August 2016 because of hypoglycaemia-associated symptoms and who were also followed up at the ED. The patients were divided into two groups: those who presented with loss of consciousness and those who presented with neuroglycopenic symptoms but no loss of consciousness. The parameters analysed using the records included the following: age, sex, glucose levels on arrival, the presence of diabetes mellitus, BUN test results, levels of sodium, potassium, chloride, creatinine, pH, HCO3, lactate and leukocytes, whether or not the patients were receiving insulin therapy or taking oral antidiabetics, the presence of inadequate oral intake, malignancy, gestational diabetes, Sheehan's syndrome, suicidal insulin intake, reactive hypoglycaemia, discharge, and previous stays in intensive care.

The study excluded patients whose files were unavailable, whose file notes were missing, who had died before being examined in the ED, and who had been referred to an external centre.

Statistical analysis was performed using the Statistical Package for Social Science (SPSS) 22.0 software (IBM Corp. , Armonk , NY , USA) Descriptive data were expressed as median (min - max) values, while categorical data were expressed as number (n) and frequency (%) The significant differences in the frequency between the groups were compared using the Chi - square test. The parametric data were analysed using a t-test, and the nonparametric data were analysed using the Mann Whitney u test. Blood glucose levels that had caused loss of consciousness were analysed using the ROC curve. $p<0.05$ was accepted as statistically significant.

RESULTS

The study included 423 patients, of whom 249 were female and 147 were male. The mean age of the patients was 57.23. The mean age of the 235 patients who were unconscious was 59.30 ± 19.17, while that of the 188 conscious patients was 54.64 ± 18.51. The relationship between patients who were unconscious and old age was found to be statistically significant (p<0.012). Among the 235 unconscious patients, 144 were female and 91 were male. Of the 188 conscious patients, 105 were female and 83 were male. There was no statistically significant relationship between the consciousness of the patients and their sexes (p<0.275)

Among the patients with hypoglycaemia, 337 (79.66%) were diabetic and 187 (55.49%) had loss of consciousness. Among the patients with hypoglycaemia, 257 (60.75%) were using insulin and 170 (66.15%) had loss of consciousness. Among the patients with hypoglycaemia, 92 (21.79%) were taking oral antidiabetic drugs and 33 (35.87%) had loss of consciousness. Comparison of the causes of hypoglycemia between unconscious patient group and patient group who have neuroglycopenic symptoms are presented in Table 1.

Table 1. Comparison of the causes of hypoglycaemia between unconscious patient group and patient group who have neuroglycopenic symptoms

Cause of hypoglycemia	n (%)	Unconscious	Neuroglycopenic Symptoms
Diabetes	37 (79,66)	187 (55,49)	150 (44,51)
Insülin	257 (60,75)	170 (66,15)	87 (33,85)
Oral Antidiabetic Drugs	92 (21,74)	33 (35,87)	59 (64,13)
Reactive Hypoglycemia	36 (8,51)	19 (52,77)	17 (47,23)
Inadequate Oral Intake	40 (9,45)	28 (70,00)	12 (30,00)
Malignancy	8 (1,89)	8 (100,00)	0 (0,00)
Gestational diabetes	8 (1,89)	0 (0,00)	8 (100,00)
Sheehan's Syndrome	6 (1,41)	2 (33,33)	4 (66,67)
Suicide	8 (1,89)	4 (50,00)	4 (50,00)
Other	8 (1,89)	7 (87,50)	1 (12,50)

The blood glucose level of the unconscious patients was 32.57 ± 8.92 mg/dL, while that of the conscious patients was 44.90 ± 3.60 mg/dL. Blood glucose levels were found to be statistically significantly lower in patients who were unconscious than among conscious patients (p<0.001). Lactate levels (p <0.001) and BUN test results (p<0.003) were found to be statistically significantly greater in patients who were unconscious than among conscious patients. See Table 2 for all other biochemical parameters.

Table 2. Comparison of biochemical parameters between unconscious patient group and patient group who have neuroglycopenik symptom

Biochemical Parameters	Unconscious Mean + S. D.)	Neuroglycopenic Symptoms (Mean + S. D.)	P
Glucose	32,57 ± 8,92	44.90 ± 3,60	**0,001**
Na	137,30 ± 6,25	136,95 ± 5,35	0,541
K	4,03 ± 0,69	3.95 ± 0,68	0.225
Cl	102,66 ± 5,92	102,39 ± 5,94	0,647
BUN	24,22 ± 14,86	20,12 ± 13,3	**0,003**
Creatinine	1,23 ± 0,88	1,22 ± 1,25	0,923
pH	7,35 ± 0,08	7,36 ± 0,05	0,352
HCO3	24,21 ± 3,95	23,99 ± 3,18	0,537
Lactate	5,87 ± 2,43	2,73 ± 2,01	**0,001**
WBC	10190,68 ± 4234,84	9771,65 ± 3231,51	0,263

Na: Sodium; K: Potassium; Cl: Chlorine; BUN: Blood Urea Nitrogen; WBC: White Blood Cell

Among the 235 patients who were unconscious when they were admitted, 143 were discharged. Of the 188 patients who were conscious when admitted, 151 were discharged. In addition, among the 235 unconscious patients, 24 were admitted to the intensive care unit (ICU); however, none of the conscious patients needed intensive care follow-up.

The blood glucose level that caused loss of consciousness was observed to be 41.5 (sensitivity 95%, specificity 89.2% and an area under the curve of 0.966).

DISCUSSION

The present study demonstrated that the blood glucose level of patients who were unconscious was 32.57 ± 8.92 mg/dL, while that of conscious patients was 44.90 ± 3.60 mg/dL. Therefore, blood glucose levels below 41.5 mg/dL were associated with loss of consciousness in patients. More severe treatments for glycaemic control, insulin doses that were wrong and dietary incompatibilities were found to lead to an increased incidence of hypoglycaemia.

Hypoglycaemia is a serious and common side effect of insulin therapy. This study found the most common cause of hypoglycaemia to be insulin use, with 60.71% of the patients having insulin-induced hypoglycaemia. The use of insulin was significantly greater among the patients who were unconsciousness when they were admitted to the ED. Failure to adjust their insulin doses carefully, incompatibility, non-adherence to their diets, missed meals after insulin administration, levels of HbA1c that were under the 7% target goal in treatment, and the initiation of insulin therapy in patients over 80 years of age often led to insulin-induced hypoglycaemia. The development of quality indicators of glycaemic overtreatment can reduce the number of hypoglycaemia-associated ED admissions [5]. The rate of insulin use in unconscious hypoglycaemic patients was found to be 72.34%.

The results of this research suggest that diabetes is the most common cause of hypoglycaemia. (6) The study reported insulin-dependent diabetes for 73% of the patients, non-insulin-dependent diabetes for 20% and insulin-treated diabetes secondary to chronic alcoholic pancreatitis for 7%. In this study, the rate of hypoglycaemia that

was associated with oral antidiabetic drugs was found to be 21.74% [6].

Hypoglycaemic episodes can provoke many problems in clinical practice. Symptoms are variable and can often be confused with those for other diseases. Patients who are experiencing episodes of hypoglycaemia may not even notice them at all. Hypoglycaemia is very prevalent worldwide, it progresses over time, especially in patients with Type 2 diabetes, and its occurrences may not be predictable. In addition, the ways in which patients compensate for their symptoms and episodes may be insufficient or excessive. This study found the use of oral antidiabetic drugs to be lower among the patients who were unconscious when they were admitted to the ED. The patients taking oral antidiabetic drugs were generally conscious and admitted with neuroglycopenic symptoms. However, oral antidiabetic drugs are often used in Type 2 diabetes, and developing specific training programs to teach patients with Type 2 diabetes to recognize and treat the first symptoms of hypoglycaemia would reduce the frequency of complications associated with hypoglycaemic episodes. The establishment of a database that facilitates recording and following up on hypoglycaemic episodes would reveal regional differences and provide assistance in learning about the aetiology of hypoglycaemia and in reducing the frequencies of hypoglycaemic episodes. Recent research examined the 90-day mortality in non-diabetic patients with severe hypoglycaemia and reported that patient age, the presence of advanced liver disease, sepsis, and low blood glucose levels were the main predictors of mortality after episodes of severe hypoglycaemia in non-diabetic patients [7]. This study also found more severe hypoglycaemia in patients with malignancies, and all of these patients were unconscious on admission to the ED. No loss of consciousness was observed in patients with gestational diabetes, and no significant results were found among these patients.

In conclusion, the blood glucose level causing a loss of consciousness was observed to be 41.5 mg/dL. Insulin-induced hypoglycaemia was the most common cause of hypoglycaemia and was reported in 60.71% of the patients. A significant correlation was found between hypoglycaemia-induced loss of consciousness and age, insulin use, malignancy, and lactate levels on ED arrival.

REFERENCES

1. ZAMMIT NN., FRIER BM. Hypoglycemia in type 2 diabetes: Pathophysiology, frequency, and effects of different treatment modalities. Diabetes Care. 2005;28(12):2948–61.
2. ZHANG P., ZHANG X., BROWN J., VISTISEN D., SICREE R., SHAW J., et al. Global healthcare expenditure on diabetes for 2010 and 2030. Diabetes Res Clin Pract. 2010;87(3):293-301.
3. AMIEL SA., DIXON T., MANN R., JAMESON K. Review article: Hypoglycaemia in type 2 diabetes. Diabet Med. 2008;25(3):245–54.
4. LANDSTEDT-HALLIN L., ADAMSON U., LINS P. Oral glibenclamide suppresses glucagon secretion during insulin-induced hypoglycemia in patients with type 2 diabetes. J Clin Endocrinol Metab Copyr. 1999;84(9):3140–5.
5. ARON D., POGACH L. Transparency standards for diabetes performance measures. JAMA. 2009;301(2):210–2.
6. HART SP., FRIER BM. Causes, management and morbidity of acute hypoglycaemia in adults requiring hospital admission. Quart J Med. 1998;91(7):505–10.
7. TSUJIMOTO T., YAMAMOTO-HONDA R., KAJIO H., KISHIMOTO M., NOTO H., HACHIYA R., et al. Prediction of 90-day mortality in patients without diabetes by severe hypoglycemia: blood glucose level as a novel marker of severity of underlying disease. Acta Diabetol 2015;52(2):307–14.

The impact of environmental factors on the spread of COVID-19

Ozgur Sogut[1], Muhammed Salih Topaloğlu[1], Hüseyin Ergenç[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Background: Analysing the relationship between viral infections and meteorological conditions can provide a better understanding of virus behaviour. Clinical studies suggest that warmer climates slow the spread of viral infections (1). In addition, exposure to cold weakens human immunity. Cold weather is associated with a reduced blood supply to the nasal mucosa, in turn reducing the movement of immune cells to the entire upper respiratory tract. Consequently, people are more vulnerable to microbial infections during the winter. In addition, as they also typically spend more time indoors, the risk of transmission of pathogenic microorganisms between hosts is higher (2).

In this study, we investigated the relationship between climate indicators climate indicators (air temperature, humidity, wind speed), and the number of COVID-19 cases as well as the mortality of patients with confirmed COVID-19 who were consecutively admitted to our tertiary hospital of emergency department (ED).

Methods: This was a single-centre, retrospective, descriptive, cross-sectional, and clinical observational study. Approval was obtained from the Turkish Ministry of Health Scientific Research Platform (form number 14; 16/08/2021) as well as from the Clinical Research Ethics Committee of the University of Health Sciences, Haseki Research and Training Hospital, Istanbul, Turkey (decision number 54-2021 dated 25/08/2021).

The data for this study were obtained from the Turkish Ministry of Health's Public Health Management System and included the number of daily and cumulatively confirmed COVID-19 cases. Climate indicators (mean temperature, minimum temperature, maximum temperature, mean humidity, wind speed) for the city of Istanbul were collected between 01 June 2020, and 28 February 2021, during the 39-week study period from the Istanbul Meteorology 1st Regional Directorate. A correlation analysis between climate indicators and both the number of COVID-19 cases and disease severity was performed. A possible correlation between weekly and monthly patient numbers and meteorological parameters was also examined. The seasonal distribution [summer (June, July, and August), autumn (September, October, and November) and winter (December, January, February)] of the number of COVID-19 cases and deaths was determined as well.

Adult patients ≥ 18 years of age who presented to the emergency department with COVID-19 symptoms confirmed by real-time polymerase chain reaction (RT-PCR) were included in the study. Patients < 18 years of age or those with pneumonia of other types not confirmed by RT-PCR were excluded from study participation.

Results: The study population consisted of 169, 058 patients, of which 89, 091 (52.70%) were male and 79, 967 (47.30%) were female. The mean age of the patients was 39.74 ± 11.60 (range, 18–92) years. From the initial group, 354 patients died, resulting in a mortality rate of 0.21%.

The meteorological parameters including the mean temperature was 16.4 ± 6.9°C (min 1.7; max 24.7), the daily mean maximum temperature was 21.8 ± 7.5°C (min 5.1; max 30.6), the daily mean minimum temperature was 12.4 ± 6.3°C (min −1.2; max 20.4), the mean relative humidity was 81.8 ± 6.9% (min 70.4; max 98) and the mean wind speed was 3.02 ± 0.80 m/s (min 1.53, max 5.10).

The largest number of patients (n = 21, 610) was admitted in December, but the largest number of deaths (n = 46) occurred in November. The lowest number of patients (n = 15, 345) occurred in June, as did the lowest number of deaths (n = 30). A comparison of the number of patients with the number of deaths according to the season

showed that the largest number of patients occurred in winter (n = 63, 544), and the largest number of deaths in autumn and winter (n = 129 and 127, respectively; Table 1).

In the correlation analysis, a statistically significant, negative relationship was found between the total number of patients and mean temperature (rho = -0.734, p < 0.001), maximum temperature (rho = -0.696, p < 0.001) or minimum temperature (rho = -0.748, p < 0.001). In addition, the total number of patients correlated significantly and positively with the mean relative humidity (rho = 0.399 and p = 0.012). However, there was no significant correlation between the total number of patients and the wind speed (rho = 0.214 and p = 0.190; Table 2 and Fig. 1). Similarly, the number of deaths correlated significantly and negatively with the mean (rho = −0.654, p < 0.001), maximum (rho = −0.675, p < 0.001) and minimum (rho = −0.646, p < 0.001; Fig. 2) temperatures.

Table 1. Distribution of the total number of patients with COVID-19 and of COVID-19-related deaths by month and season.

Month	Patients (n)	Deaths (n)
June	15 345	30
July	16 389	33
August	16 499	35
September	18 480	40
October	18 972	43
November	19 829	46
December	21 610	44
January	20 552	43
February	21 382	40
Season		
Summer	48 233	98
Autumn	57 281	129
Winter	63 544	127

Table 2. Correlation analysis of the relationship between climate variables and the number of COVID-19 patients, the number of COVID-19-related deaths and the related mortality.

Climate indicators		Patients	Deaths	Mortality during the 39-week
Mean temperature	rho	-0.734	-0.654	-0.375
	p	<0.001	<0.001	0.019
Maximum temperature	rho	-0.696	-0.675	-0.429
	p	<0.001	<0.001	0.006
Minimum temperature	rho	-0.748	-0.646	-0.352
	p	<0.001	<0.001	0.028
Mean humidity	rho	0.399	0.239	0.158
	p	0.012	0.142	0.337
Wind speed	rho	0.214	0.031	0.003
	p	0.190	0.850	0.988

Note: rho, correlation coefficient as determined in a Pearson's correlation test.

Fig. 1. The relationship between climate indicators (mean temperature, minimum temperature, maximum temperature, mean humidity, wind speed) and the number of COVID-19 patients.

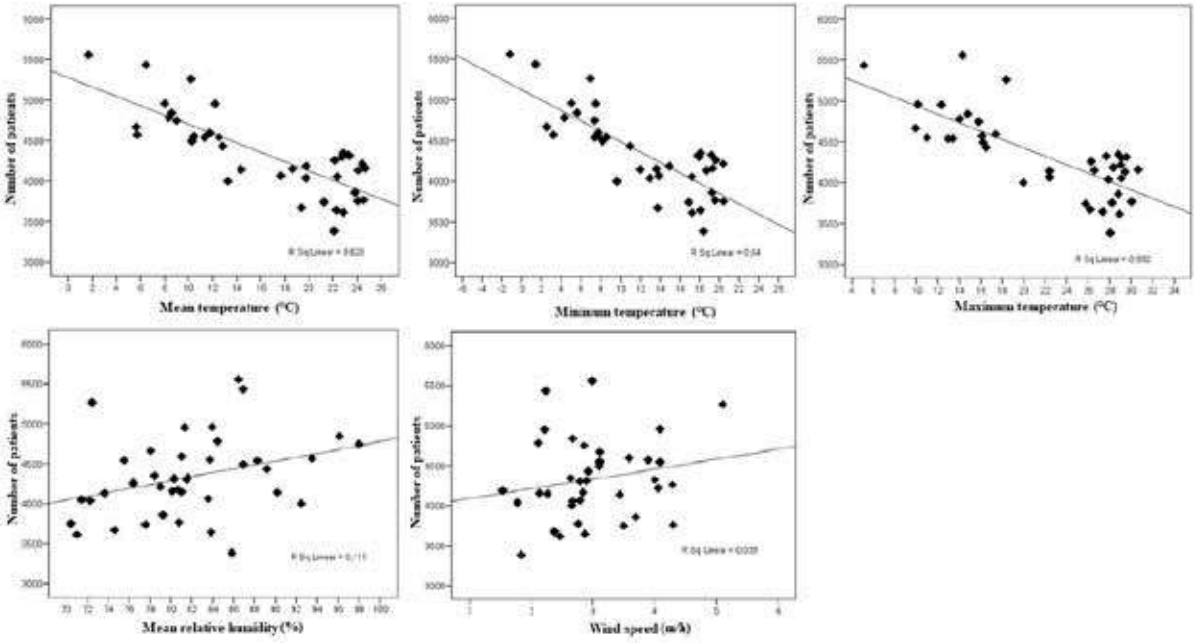
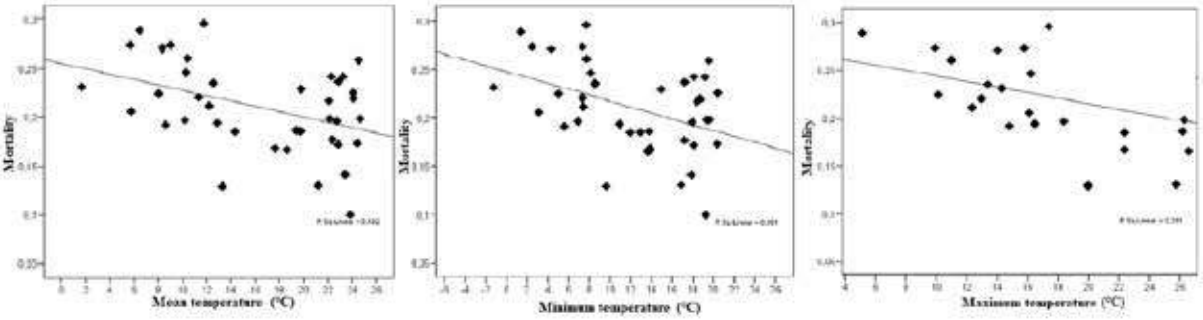


Fig. 2. The relationship between mean temperature, maximum temperature and minimum temperature and death due to COVID-19.



Discussion and Conclusions: Understanding the factors that contribute to the spread of SARS CoV-2 will play an important role in controlling the spread of COVID-19 and help combat other possible epidemics. Infectious agents, together with host and environmental factors, are the main determinants of the epidemiology and pathogenesis of infectious diseases (3). Recognising the relationship between COVID-19 and environmental factors such as climate variables can help in planning appropriate management of an outbreak. Low relative humidity and cold weather conditions provide a favourable environment for SARS CoV-2 (1,2). In addition, clinical studies have shown a slower spread of respiratory diseases during warm seasons and a faster spread during cold seasons (1,3-5). However, the relationship between the spread of SARS CoV-2 and climate variables is still unclear (6-8). This study investigated potential predictive factors for mortality and disease spread in patients with confirmed COVID-19 who were consecutively admitted to our tertiary hospital of ED.

A study conducted in Shanghai, China, from 1 January to 31 March 2020, found that a 1% increase in relative humidity resulted in a 1.7–3.7% increase in the daily number of patients with confirmed COVID-19 (9). Zhou et al. (10) investigated the effects of air pollutants and meteorological factors on the number of confirmed cases in 120 cities in China. They determined that the rate of COVID-19 transmission increased with an increase in the relative humidity. Similarly, our study identified a positive correlation between the relative humidity and the total

number of patients. However, there was no statistically significant relationship between the relative humidity and the number of deaths. By contrast, in a study conducted in India, Dutta et al. (11) reported that a high relative humidity in Delhi during the first wave of the epidemic was related to a decrease in both patient numbers and mortality. Larger studies on the effect of relative humidity on the spread of COVID-19 and COVID-19-related mortality are needed.

Consistent with the literature, our study identified a statistically significant, negative relationship between the death rate from COVID-19 and the mean, maximum and minimum temperatures. The mean relative humidity correlated with the number of cases, but not with mortality. Wind speed values had no effect on the number of COVID-19 patients nor on COVID-19-related death. Further studies are needed to investigate the effects of climate variables on COVID-19 transmission and mortality.

References

1. Casanova L.M., Jeon S., Rutala W.A., Weber D.J. & Sobsey M.D. 2010. Effects of air temperature and relative humidity on coronavirus survival on surfaces. Applied and environmental microbiology 76: 2712–2717.

2. Sun Z., Thilakavathy K., Kumar S.S., He G. & Liu S.V. 2020. Potential Factors Influencing Repeated SARS Outbreaks in China. International journal of environmental research and public health 17: 1633.

3. Lin K., Yee-Tak Fong D., Zhu B. & Karlberg J. 2006. Environmental factors on the SARS epidemic: air temperature, passage of time and multiplicative effect of hospital infection. Epidemiology and infection 134: 223–230.

4. Tan J., Mu L., Huang J., Yu S., Chen B. & Yin J. 2005. An initial investigation of the association between the SARS outbreak and weather: with the view of the environmental temperature and its variation. Journal of epidemiology and community health 59: 186–192.

5. Sun Z., Thilakavathy K., Kumar S.S., He G. & Liu S.V. 2020. Potential Factors Influencing Repeated SARS Outbreaks in China. International journal of environmental research and public health 17: 1633.

6. Bashir M.F., Ma B., Bilal, Komal B., Bashir M.A., Tan D. & Bashir M. 2020. Correlation between climate indicators and COVID-19 pandemic in New York, USA. *The Science of the total environment* 728: 138835.

7. Ozyigit A. 2020. Understanding Covid-19 transmission: The effect of temperature and health behavior on transmission rates. *Infection, disease & health* 25: 233–238.

8. Xu H., Yan C., Fu Q., Xiao K., Yu Y., Han D., Wang W. & Cheng J. 2020. Possible environmental effects on the spread of COVID-19 in China. The Science of the total environment 731: 139211.

9. Tong L., Ji L., Li D. & Xu H. 2021. The occurrence of COVID-19 is associated with air quality and relative humidity. Journal of medical virology 10.1002/jmv.27395.

10. Zhou J., Qin L., Meng X. & Liu N. 2021. The interactive effects of ambient air pollutants-meteorological factors on confirmed cases of COVID-19 in 120 Chinese cities. Environmental science and pollution research international 28: 27056–27066.

11. Dutta A. & Dutta G. 2021. Association of air pollution and meteorological variables with the two waves of COVID-19 pandemic in Delhi: A critical analysis. Heliyon 7: e08468.

Trauma-specific frailty index in geriatric trauma patients defined according to the old and new World Health Organization age classifications

Rümeysa Süt[1], **Adem Az**[1], Özgür Söğüt[1]

[1] University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Introduction

Over the past century, improvements in disease treatment and prevention have significantly increased life expectancy worldwide (1, 2). Consequently, the definition of elderly has been revised; the World Health Organization (WHO) updated its age-specific categories in 2017. Currently, the WHO categorizes individuals aged 0-17, 18-65, 66-79, and ≥80 years as juvenile, young, middle-aged, and elderly, respectively (3).

The purpose of this study was to compare the modified 15-variable trauma-specific frailty index (TSFI) with traditional injury scoring systems in determining trauma severity and predicting discharge disposition after acute trauma (within 24 h of trauma) in geriatric patients classified according to the old and new World Health Organization (WHO) classification.

Materials and Methods

This prospective, observational, single-center study included elderly patients with blunt trauma aged 65 years. Based on the old or new WHO age categorization, we divided senior patients into group I (aged 65-79 years) and group II (aged >80 years), respectively. At admission, we determined trauma severity using established injury rating systems (e.g., the Glasgow coma scale, injury severity score, and updated trauma score). We studied the associations between TFSI and standard injury assessment methods amongst patient categories.

Results

We enrolled 169 elderly individuals in our study (80 and 89 in groups I and II, respectively). The average score on the TFSI was substantially higher for females than it was for men ($p = 0.025$), and it was significantly higher for group II than it was for group I ($p = 0.021$). When looking at the TFSI and more traditional trauma scoring systems in both groups of participants, researchers found no significant relationships between the two groups of metrics. There was a statistically significant difference in the mean Trauma-Specific Frailty Index score between the hospitalized patients and the released patients in group I ($p=0.005$), while there was no significant difference in group II ($p=0.526$).

Conclusion

The most common causes of trauma in elderly patients are traffic accidents and falls (4, 5). According to the findings of our study, the severity of frailty as well as the frequency of geriatric trauma are more common in females than in males. In addition, individuals over the age of 80 years old who were classified as elderly had higher TFSI scores than younger patients. When it came to directing therapy and predicting the discharge disposition in geriatric trauma patients aged 65-79 years old, the 15-variable TSFI score was found to be superior to the ISS score, the RTS score, and the GCS score.

Table 1. Patient demographic and clinical characteristics

	Group I		Group II	
Characteristics	**n**	**%**	**n**	**%**
Total (n=169)	81	47.92	88	52.07
Sex				
Male	37	45.68	31	35.23
Female	44	54.32	57	64.77
	Mean ± SD		**Mean ± SD**	
Age, years (mean ± SD, 79.20 ± 7.80)	72.20 ± 3.90		85.60 ± 4.10	
	n	**%**	**n**	**%**
Trauma mechanism				
Spontaneous fall (n=154)	71	42.01	83	49.11
Traffic accident (n=14)	9	5.32	5	2.95
Assault (n=1)	1	0.60	0	0.00
Clinical outcome				
Hospitalized (n=25)	25	14.79	32	18.93
Discharged (n=112)	56	33.14	56	33.14

Note: Group I: patients aged 65-79 years; Group II: aged ≥ 80 years

Table 2. Comparison of traditional trauma scores (ISS, RTS and GCS), and TSFI values between group I and group II patients

	Group I		Group II		
Trauma scores	**Mean ± SD**	**Max-Min**	**Mean ± SD**	**Max-Min**	**P-value***
ISS	5.41 ± 4.57	20-01	6.06 ± 6.69	48-01	0.807
RTS	7.77 ± 0.44	7.84-4.09	7.83 ± 0.10	7.84-6.9	0.149
GCS	14.95 ± 0.27	15-13	14.92 ± 0.48	15-11	0.934
TSFI	2.99 ± 2.74	11.25-0	3.82 ± 2.73	10-0	0.021

Abbreviation: ISS; Injury Severity Score, RTS; Revised Trauma Score, GCS; Glasgow Coma Scale, TSFI; Trauma-Specific Frailty Index

Group I: patients aged 65-79 years; Group II: aged ≥ 80 years.

References

1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. Age standardization of rates: a new WHO standard [e-book]. Geneva: World Health Organization; 2001. Available at: https://www.who.int/health-info/paper31.pdf. Accessed 19.02.2022.
2. Cerreta F, Eichler HG, Rasi G. Drug policy for an aging population--the European Medicines Agency's geriatric medicines strategy. N Engl J Med. 2012;367(21):1972-4.
3. World Health Organization. New age classification. Available at: https://www.who.int/%20age%20classification&sort. Accessed 21.01.2021.
4. Schwab CW, Kauder DR. Trauma in the geriatric patient. Arch Surg. 1992;127(6):701-6.
5. Ma OJ, DeBehnke DJ. Geriatrictrauma. In: Tintinalli J, Kelen GD, Stapcznski JS, editors. Emergency Medicine, Acomprehensive Study Guide. 5th ed. New York: Mc Graw Hill; 1999. pp 1623-7.

International Smuggling of Illicit Drugs by Body Concealment at a Tertiary Hospital in Istanbul

Onur Kaplan[1], Ozgur Sogut[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Background: International drug trade has recently used new and advanced methods for smuggling illicit substances (1). The smuggling of illicit drugs by internal concealment is a challenging method and individuals engaged in this process are called body packers or mules. Body packers smuggle illicit drugs either by swallowing drug-filled packets or concealing them in body cavities, specifically the rectum and vagina (1,2). Cocaine is one the most trafficked drugs, due to its high financial value, followed by heroin and hashish (3). Body packers usually conceal 1 kg of the drug divided into 50–100 packages containing 5–10 grams each (4). The estimated total street value of the packages range from $1,000 to over $1,000,000 (5). Without an antidote, cocaine poisoining is particularly dangerous and even one packet rupturing can lead to a coma and death (6). The mortality and morbidity of these cases decreases when improved packaging material is used by smugglers, along with a primarily conservative treatment approach (7,8).

Given the increasing number of body packers detained upon arrival in Istanbul, this study sought to identify the demographic features and outcomes of these medicolegal cases recently hospitalized in our institution.

Methods: Istanbul is a unique city, located in both Asia and Europe, and acts as a connecting bridge, which is critical to drug trafficing within the city or across continents. Atatürk Airport, newly named İstanbul Airport, is one of the largest airports in Europe, with more than 40 million people travelling through it every year. Our hospital, Haseki Training and Research Hospital, is a referral center for body packers in Istanbul. Suspected body packers are brought to our emergency department (ED) with signs and symptoms of ingested drug toxicity or intestinal obstruction. More commonly, body packers are detained by the Turkish Narcotics Police at the airport for medical confirmation or exclusion of possible body packing.

This cross-sectional and retrospective study evaluated all suspected body packers or body pushers body pushers taken into custody at Istanbul Airport and brought to our referral hospital between January 2017 and December 2019. The following data were recorded for each subject: Age, sex, nationality, weight of packages, radiological investigation (e.g., number of ingested or concealed packages and localization of the packages), treatment, general complications, mortality, and duration of ED stay.

Results: During the study period, a total of 82 subjects suspected of being body packers or body pushers were apprehended by narcotics police and transported to our ED for medical confirmation or exclusion of possible body packing. No packets were detected radiologically in 11 of these cases and they were immediately discharged. Seventy-one subjects were confirmed body packers and body pushers (mean age = 35 years; range = 19–59 years; 56 males and 15 females).

The most common nationality of the body packers was Nigerian (n = 24; 33.8%), followed by Turkish (n = 18; 25.4%), and South African (n = 5; 7%). The most prevalent drug smuggled by the body packers was cocaine, which was found in 63.4% (n = 45) of cases. The drug packets in the remaining cases contained hashish (n = 18, 25.3%) and heroin (n = 8, 11.3%). All subjects were apprehended by authorities and did not require hospitalization.

The number of packets retrieved varied from 2 to 303 (mean = 78.5), with a mean weight of 885.6 grams (range = 20–2200 grams). The mean hospital stay was 26.5 hours (range = 2–112). Ingestion was the most common method of body packing in 66 cases, followed by insertion into the rectum in four cases, and one involving inser-

tion into the vagina. Demographic and clinical characteristics of the hashish, heroin, and cocaine body packers are shown in Tables 1, 2, and 3, respectively. Nine patients underwent rapid urine testing for illicit drugs using an on-site Cozart® screen at the airport and were positive for cocaine, whereas the remaining cases were not tested. Physical examinations were unremarkable in the majority of cases (79%). Findings upon examination included abdominal distension and tenderness without evidence of peritonism. Laboratory tests included CBC, CRP, serum electrolytes, liver and kidney function, and ECG, and were all normal.

All packages were spontaneously evacuated. Police secured and collected multiple drug-filled packets, including those with novel packaging and the more common aluminum-wrapped packages with multiple layers of latex (Figure 1). Non-contrast-enhanced three-dimensional (3D), axial, sagittal, coronal abdominal, and pelvic CT images demonstrated spherical-shaped packages filling the stomach, small intestine, sigmoid colon, rectum, and anal canal in a 47-year-old Nigerian male body packer who swallowed 75 packages filled with cocaine (Figure 2). Non-contrast-enhanced 3D, axial abdominal, and pelvic CT images showed numerous packages throughout the gastrointestinal system of a 29-year-old Turkish body packer who swallowed 100 packages filled with hashish (Figure 3). A CT of the abdomen and pelvis demonstated globe, vesicle, and multiple spherically-shaped packages filling the small intestine and sigmoid colon of a 46-year-old Nigerian body packer who swallowed 85 packages filled with heroin (Figure 4).

Figure 1. Sample of aluminum-wrapped several latex coats packets evacuated from body packers.

Figure 2. Non-contrast-3D CT reconstruction of the abdomen and pelvis (A), axial in (B), sagittal in (C) and coronal in (D) showing numerous spherical shaped packages of ingested cocaine filling the stomach, small intestine, sigmoid colon, rectum and anal canal in a 47 year-old male Nigerian body packer.

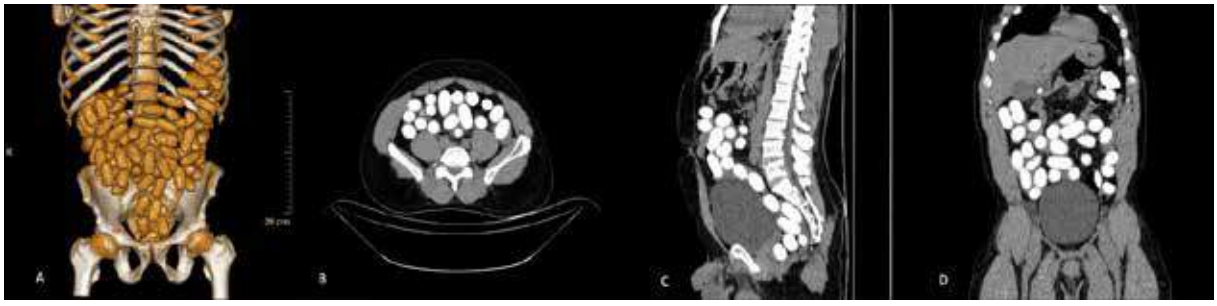
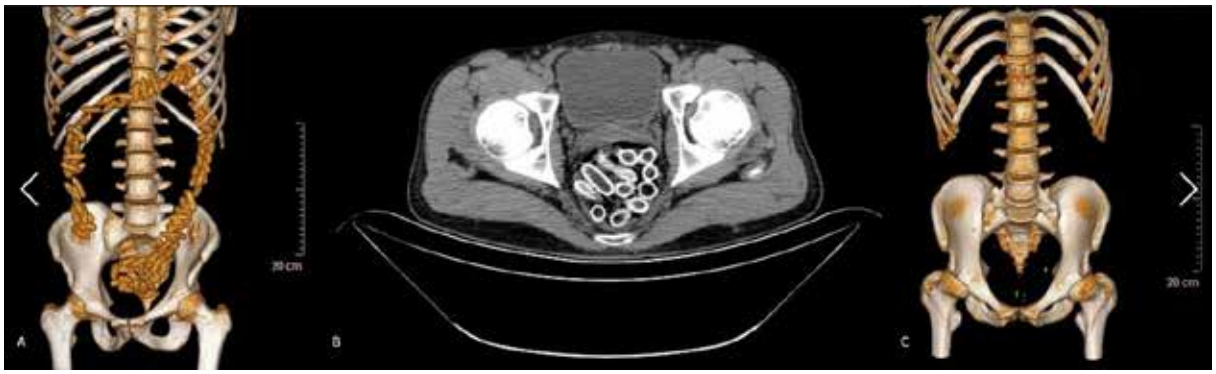


Figure 3. Non-contrast-3D CT reconstruction of the abdomen and pelvis (A) and axial in (B) showing multiple spherical shaped packages of ingested hashish filling the anal canal, rectum, and sigmoid colon in a 29 year-old male Turkish body packer and 3D CT reconstruction (C) view demonstrating empty gastrointestinal tract after all packages have been removed.



Discussion and Conclusions: This study emphasizes the use of novel and sophisticated, machine-produced packages that greatly reduce the risk of rupture and have almost eliminated the need for surgical treatment. With this development, body packers can be safely treated with a conservative approach. Six key findings are presented. First, the follow-up of 82 subjects suspected of body packing led to the identification of 71 body packers (age range = 19–59 years, 56 males, 15 females). Second, the most prevalent drug smuggled by body packers was cocaine, which was found in 63.4% of the cases. The drug packets in the remaining cases contained hashish and heroin. Third, ingestion was the most common method of body packing, followed by introduction of the drug packages through the rectum or vagina, also known as body pushing or body stuffing. Fourth, the amount and weight of packets retrieved from a body packer or body pusher varied from 2–303 grams and 20–2200 grams, respectively.

Fifth, The body packers and body pushers had all been arrested at Istanbul Airport, with the most common nationality being Nigerian in (n = 24; 33.8%), followed by Turkish (n = 18; 25.4%), and South African (n = 5, 7%). Sixth, symptoms of acute intoxication due to disruption of the packing material were not observed, along with other complications, such as intestinal obstruction.

A well-known method of illicit drug smuggling is the concealment of drug-filled packets in a body cavity, especially where the gastrointestinal system is utilized through ingestion. The term "body packer" usually refers to individuals who take part in this method of international drug traffic (9,10). There are two other modalities of body packing, including body stuffing, also called mini packing, where an individual, usually a trafficker, street dealer, or user, swallows small amounts of poorly wrapped or even unwrapped drug upon an accidental encounter with police for fear of arrest (11,12). A body pusher conceals drug capsules in the rectum or vagina and these capsules are usually bigger than those ingested (13). The majority of cases in this study population (n = 66; 93%) were body packers, while the remaining subjects were body pushers with drug-filled packets inserted into the rectum (n = 4) and vagina (n = 1).

In conclusion, over the years, the mortality of body packers has been gradually decreasing. This change may be the result of a switch from a primary surgical approach to a primary conservative approach, as well as sophisticated capsule material and novel packing techniques, as observed in this study. Although most body packers remain asymptomatic, close follow up is crucial for detecting possible signs and symptoms of intoxication or intestinal obstruction. Clinical deterioration can be sudden if packets rupture, which results in drug toxicity and requires immediate surgery.

Keywords: Body packers, forensic medicine, cocaine, hashish, heroin

References

1. Beckley I, Ansari NA, Khwaja HA, et al. Clinical management of cocaine body packers: the Hillingdon experience. *Can J Surg.* 2009;52(5):417–21.

2. Markovits N, Kurnik D, Halkin H, et al. "Body packers" in Israel: a case series. *Isr Med Assoc J.* 2013;15(10):639–45.

3. Simone C, Daria P, Gabriele S, et al. Systematic Review of the Toxicological and Radiological Features of Body Packing. *Int J Legal Med.* 2016;130(3):693-709.

4. Bulstrode N, Banks F, Shrotria S. The outcome of drug smuggling by 'body-packers'the British experience. *Ann R Coll Surg Engl.* 2002;84:35–38.

5. Kaplan O, Sogut O, Yigit M. International smuggling of cocaine by body concealment: A case report. *Iran Red Crescent Med J.* 2017;19 (2): e38964.

6. Fishbain DA, Wetli CV. Cocaine intoxication, delirium, and death in a body packer. *Ann Emerg Med*. 1981;10:531–532.

7. Berger FH, Nieboer KH, Goh GS, et al. Body packing: a review of general background, clinical and imaging aspects. Radiol Med. 2015;120(1):118–32.

8. Jones OM, Shorey BA. Body packers: grading of risk as a guide to management and intervention. *Ann R Coll Surg Engl.* 2002;84:131-2.

9. Cappelletti S, Piacentino D, Ciallella C. Systematic review of drug packaging methods in body packing and pushing: a need for a new classification. Am J Forensic Med Pathol. 2019;40(1):27-42

10. Abedzadeh AA, Iqbal SS, Al Bastaki U, et al. New packaging methods of body packers: Role of advanced imaging in their detection. A case study. Radiol Case Rep. 2019;14(5):627-633.

11. Kucukmetin NT, Gucyetmez B, Poyraz T, et al. Foreign material in the gastrointestinal tract: cocaine packets. *Case Rep Gastroenterol*. 2014;8(1):56-60.

12. June R, Aks SE, Keys N, et al. Medical outcome of cocaine body stuffers. *J Emerg Med.* 2000;18: 221–4.

13. VK Wankhade, B G Chikhalkar. Body Packing and Intra-Vaginal Body Pushing of Cocaine: A Case Report. *Case Reports Leg Med (Tokyo).* 2018;31:10-13.

The utility of systemic inflammatory markers for distinguishing uncomplicated and complicated acute appendicitis in adult patients: A 3-year retrospective analysis

Ozgur Sogut[1], Hüseyin Ergenç[1], Seçil Yeşilalioğlu[1]

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye

Background: Among the systemic inflammatory parameters, the neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR), monocyte eosinophil ratio (MER), and C-Reactive Protein (CRP) value were found to be associated with the disease severity in critical illness [1–3]. In a retrospective study of 162 patients who underwent an appendectomy, Eren et al. noted that NLR can be used with a physical examination as a diagnostic marker for acute appendicitis and predict perforated appendicitis [4]. Additionally, in another study of 520 patients who were operated on due to appendicitis, Kapci et al reported that the hemogram parameters like leukocyte count, neutrophil count, and NLR are beneficial in the diagnosis of acute appendicitis when used with the physical examination [5]. However, in the research of 101 patients with acute appendicitis, Guler et al observed no significant difference in terms of leukocyte counts and CRP values between perforated and non-perforated acute appendicitis patients [6].

In this study, we investigated the predictive power of serum systemic inflammatory markers including neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR), monocyte eosinophil ratio (MER), and C-Reactive Protein (CRP) levels for distinguishing uncomplicated and complicated acute appendicitis in adult patients admitted to the ED.

Methods: This retrospective, cross-sectional, observational and single-center study included consecutive 212 adult patients aged ≥18 years who were diagnosed with acute appendicitis in ED and underwent an appendectomy at the surgical clinic between 01 January 2019 and 31 December 2021.

All cases meeting the eligibility criteria during the study period were included to reduce selection bias. We enrolled a consecutive total of 212 adult patients who were diagnosed with acute appendicitis in ED and underwent an appendectomy at the surgical clinic. Of these patients, 35 were excluded while their data could not be accessed via the automation system. Two under the age of 18 patients were excluded. Eight patients were excluded because they had any histopathological findings other than non-inflamed, uncomplicated, or complicated appendicitis (eg, mucocele, tumor, etc.). Eighteen other patients were excluded because they had a history of hematological disease. Thirteen patients were excluded because they had a history of drug use (anti-inflammatory, antibiotics, statins, etc.) in the last week, which may affect serum NLR, PLR, MER rates, and CRP levels. Finally, we excluded 4 patients because their post-operative pathology report was noted as a normal appendix. The remaining 132 patients were included in the study.

Results: Table 1 presents the demographic characteristics of the patients in this study. A total of 132 patients, 83 male (62.9%) and 49 female (37.1%) were included in the study. The mean age was 34.7±13.40 years. We categorized the patients into two groups based on the histopathological examination. Group I included patients with uncomplicated acute appendicitis and group II included patients with complicated appendicitis. The number of patients in group I was 103 (78.03%) and 29 (21.96%) in group II. The mean age of group II patients was statistically significantly higher than those in group I (41.80±16.40 vs. 32.70±12.30; p=0.005). However, no statistically significant difference was found between group I and II patients in terms of gender (p=0.297).

Laboratory findings on admission revealed no significant differences between groups I and II patients in terms of mean serum NLR, MER and CRP values (p=0.096, p=0.248, and p=0.297, Table 2, respectively). However, we

observed that the mean serum PLR in group II patients was statistically significantly higher than those in group I (162.80±208.30 vs. 196.40±111.60, p=0.032; Table 2). In addition, mean serum monocyte and monocyte fraction (%) values were found to be significantly lower in group II patients compared to group I (p=0.032 and p=0.012, respectively; Table 3). Furthermore, the mean serum neutrophil fraction (%) value was found to be statistically significantly higher in the group II patients (p=0.047). Finally, no significant difference was found between the patient groups in terms of mean serum leukocyte, neutrophil, lymphocyte, platelet, and eosinophil counts (p=0.881, p=0.377, p=0.100, p=0.307, and p=0.174, respectively; Table 3).

Table 1: Comparison of demographic characteristics (age, gender) among patient groups separated based on histopathological examination

		Group I (n=103)	Group II (n=29)	p*
Age Mean±SD (min-max)		32.70±12.30 (18-71)	41.80±16.40 (19-88)	0.005
Gender	Men n (%)	65 (63.10)	16 (55.17)	0.297
	Women n (%)	38 (36.90)	13 (44.83)	

Note: Data are expressed as means ± standard deviations (SD) with minimum (min) and maximum (max) values. *Subgroup analyses were conducted using Mann–Whitney U test.

Group I: patients with uncomplicated appendicitis; Group II: patients with complicated appendicitis

Table 2: Comparison of laboratory findings among patient groups separated based on histopathological examination

	Group I (n=103)		Grpup II (n=29)		
Laboratory Findings	**Mean±SD**	**min-max**	**Mean±SD**	**min-max**	**p****
Leukocyte (10^3/uL)	12.8±4.1	5.22-27.7	13.1±4.9	6.35-28.21	0.881
Platelet (10^3/uL)	247.5±97.6	82.5-78.5	254.4±84.0	109-485	0.307
Neutrophil (10^3/uL)	9.79±3.77	1.73-25.61	10.6±4.8	3.8-26.09	0.377*
Lymphocyte (10^3/uL)	1.96±0.81	0.04-5.1	1.69±0.98	0.32-3.84	0.100*
Eosinophil (10^3/uL)	0.15±0.25	0-1.87	0.09±0.09	0-0.38	0.174
Monocyte (10^3/uL)	0.86±0.35	0.03-2.02	0.70±0.32	0.19-1.43	0.032
Neutrophil fraction (%)	74.8±10.2	17.4-92.5	79.2±10.5	50-94	0.047
Lymphocyte fraction (%)	16.1±6.8	0.4-40.5	14.3±9.3	2.2-42	0.136
Eosinophil fraction (%)	1.28±1.91	0-12.6	0.78±0.85	0-3.3	0.248
Monocyte fraction (%)	6.88±2.35	0.30-15.5	5.54±2.23	2-10.7	0.012*
CRP (mg/L)	46.8±57.0	0.30-296.3	77.9±103.9	1.4-412.4	0.297
NLR	6.15±5.13	1.22-43.25	9.75±9.51	1.19-42.19	0.096
PLR	162.8±208.3	53.7-2062.5	196.4±111.6	72.3-507	0.032
MER	17.9±30.2	0-192	13.8±29.1	0-143	0.248

Note: Data are expressed as means ± standard deviations (SD) with minimum (min) and maximum (max) values. *Subgroup analyses were conducted using Student t Test **Subgroup analyses were conducted using Mann–Whitney U test.

Abbreviation: NLR; neutrophil-lymphocyte ratio, PLR; platelet-lymphocyte ratio, MER; monocyte eosinophil ratio, CRP, C-Reactive Protein

Group I: patients with uncomplicated appendicitis; Group II: patients with complicated appendicitis

Table 3: Inflammatory markers in identifying the patient with complicated appendicitis

	AUC	SE	p	95% CI	
CRP (mg/L)	0.568	0.067	0.297	0.437	0.698
NLR	0.608	0.070	0.096	0.472	0.744
PLR	0.639	0.064	0.032	0.513	0.764
MER	0.425	0.063	0.249	0.301	0.549
Monocyte (10^3/uL)	0.361	0.067	0.032	0.229	0.493
Monocyte fraction (%)	0.325	0.064	0.007	0.199	0.450

Abbreviation: AUC; area under the curve, SE; standard error, CI; confidence interval, NLR; neutrophil-lymphocyte ratio, PLR; platelet-lymphocyte ratio, MER; monocyte eosinophil ratio, CRP, C-Reactive Protein

Discussion and Conclusions: This study investigated the role of systemic inflammatory markers such as NLR, PLR, MER, and CRP levels in the preoperative diagnosis of complicated appendicitis in adult patients admitted to the ED and operated on for acute appendicitis.

The key findings we found were as follows. First, 78% of patients had uncomplicated appendicitis and 22% had complicated appendicitis. Second, the mean age of the patients with complicated appendicitis was found significantly higher than those with uncomplicated appendicitis. However, no significant difference was observed between the groups in terms of gender. Third, There were no statistically significant differences between the patient groups in terms of mean NLR, MER, and CRP values. However, the mean serum PLR value was statistically significantly higher in the patients with complicated appendicitis. Fourth, mean serum monocyte and monocyte fraction (%) values were found significantly lower and the mean serum neutrophil fraction (%) value was higher in patients with uncomplicated appendicitis. Finally, in identifying the patient with complicated appendicitis, a PLR value of ≥133.73 was found to be the cut-off with 60% sensitivity and 58.4% specificity, and a monocyte fraction (%) value of ≤6 was determined as the cut-off with 72% sensitivity and 64% specificity.

In a retrospective study of 162 patients who underwent appendectomy, Eren et al. recommend NLR, together with physical examination and other diagnostic methods, in the diagnosis of acute appendicitis and in predicting perforated cases [5]. Similarly, Kapçı et al. evaluated retrospectively the data of 520 operated patients due to appendicitis and stated that examining the leukocyte counts, neutrophil counts, and NLR from routine hemogram parameters accompanied by physical examination findings is beneficial in the diagnosis of acute appendicitis [6]. Similarly, also in our study, the leukocyte and neutrophil counts and NLR were higher in patients with complicated appendicitis than in those with uncomplicated appendicitis. However, there was no statistical difference between the groups in terms of the leukocyte and neutrophil counts and NLR. Our findings indicate that the leukocyte and neutrophil counts and NLR couldn't predict complicated appendicitis.

Our findings indicate that the mean serum NLR, MER, and CRP values measured on admission to ED in adult patients with acute appendicitis, could not predict complicated acute appendicitis. However, mean serum PLR and neutrophil and monocyte counts can be useful in distinguishing complicated cases. Additionally, it can be said that the incidence of complicated acute appendicitis increases with aging.

References

1. Akilli NB, Yortanlı M, Mutlu H, Günaydın YK, Koylu R, Akca HS, et al. Prognostic importance of neutrophil-lymphocyte ratio in critically ill patients: short- and long-term outcomes. Am J Emerg Med. 2014;32(12):1476–80.

2. Yarkaç A, Kose A, Bozkurt Babuş S, Ates F, Orekici Temel G, Ölmez A. The value of hematological parameters in acute pancreatitis. Ulus Travma Acil Cerrahi Derg. 2019;25(5):453–60.

3. Jeon TJ, Park JY. Clinical significance of the neutrophil-lymphocyte ratio as an early predictive marker for adverse outcomes in patients with acute pancreatitis. World Journal of Gastroenterology. 2017;23(21):3883–9.

4. Eren T, Tombalak E, Burcu B, Ozemir IA, Leblebici M, Ziyade S, et al. Akut apandisit olgularında nötrofil/lenfosit oranının tanıda ve hastalığın şiddetini belirlemedeki prediktif değeri. Dicle Tıp Dergisi. 2016;43(2):279–84.

5. Kapci M, Turkdogan KA, Duman A, Avcil M, Gulen B, Kucukdaglı OK, et al. Akut apandisit tanısında biyobelirteçler. Journal of Clinical and Experimental Investigations. 2014;5(2):250–5.

6. Guler K, Tihan D, Duman U, Dandin O, Dilektasli E, Erol FS, et al. Akut Apandisit Hastalarında Ameliyat Öncesi Serum C-Reaktif Protein ve Lökosit Değerleri Perforasyon Varlığının Ön Görülebilmesinde Etkili Midir? Türk Kolon ve Rektum Hastalıkları Dergisi. 2016;26:6–12.

A CASE OF PULMONARY EMBOLISM

Özlem Canan ÖZBALTAN[1], Özgür SÖĞÜT[1], Hüseyin ERGENÇ[1],

[1]University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Introduction

Pulmonary embolism (PE) is a clinical picture, usually associated with deep venous thromboembolism (DVT) that develops as a result of occlusion of the pulmonary artery or its branches (1). The most common complaints are dyspnea, chest pain, hemoptysis and palpitations. The most frequent electrocardiography (ECG) finding is sinus tachycardia. Anticoagulant, thrombolytic agents and surgical embolectomy are preferred choice in the treatment of patients with PE.

PE can be classified according to the following: The presence or absence of hemodynamic stability (hemodynamically unstable or stable). The temporal pattern of presentation (acute, subacute, or chronic). The anatomic location (saddle, lobar, segmental, subsegmental). The presence or absence of symptoms (symptomatic or asymptomatic) (1,2). Patients with hemodynamically unstable PE, defined as a decrease in systolic blood pressure <90 mmHg or systolic blood pressure ≥40 mmHg from baseline for >15 minutes, should be distinguished from patients with hemodynamically stable PE because these patients are more likely to die (3).

Herein, we present a case of female admitted to our emergency department (ED) with non-spesific symptoms and diagnosed with pulmonary embolism, subsequently, started thrombolytic therapy during the cardiopulmonary resuscitation (CPR)

Case

A 38-year-old female admitted to the ED with the complaint of feeling unwell. She had no known history of chronic disease. On admission, her general condition was good and she was conscious and oriented. On physical examination, she had normal blood pressure (110/70 mmHg), high pulse rate (125/min), high respiratory rate (20/dk), normal pulse oxygen saturation (SpO2, 97 mmHg) on room air and normal temperature (36,4°C). In addition, sinus tachycardia was detected on electrocardiography.

Respiratory system examination was unremarkable except tachypnea.In lower extremities, there was no difference in diameter and Homans sign was negative. In the first blood tests, troponin elevation (48 ng/L) and respiratory acidosis (ph:7.29, PaC_{02}:50 lactate:3) were found. In the control blood gas, the pH was 7.21 Hc03:16 lactate:6. Due to the increase in respiratory distress, we performed chest computed tomography (CT) angiography with the suspicion of pulmonary embolism. CT angiography showed massive embolism extending from both main pulmonary arteries to the lobar branches. Subsequently, cardiopulmonary resuscitation (CPR) was started in the patient who developed cardiopulmonary arrest. Until the thrombolytic treatment was prepared, no response could be obtained for 15 minutes of CPR. After 50 mg IV bolus and 50 mg IV infusion of alteplase, spontaneous circulation was achieved in the patient at the 70th minute of CPR. After I week of hospitalization in the intensive care unit and 2 days in the coronary intensive care unit, the patient was discharged without any sequelae.

Conclusion

The European Society of Cardiology guidelines for the diagnosis and management of PE developed in collaboration with the European Respiratory Society has been updated in 2019. Recommendations were added or updated on all stages of the evaluation and management of PE, including diagnosis, early treatment, and long-term management (4). A registry data from United States suggest that appropriate initial medical management of ED

patients with severe PE with anticoagulation is poorly standardized and indicate a need for research to determine the appropriate threshold for empiric treatment when PE is suspected before diagnostic confirmation (5).

Patients presenting with sinüs tachycardia without predisposing factors such as fever or anemia should be alert for pulmonary embolism. Serial blood gas and vital sign monitoring are also important in such patients. In the case of cardiopulmonary arrest in patients diagnosed with pulmonary embolism or at high risk for pulmonary embolism, thrombolytic therapy should be started as soon as possible with CPR.

References

1. Carson JL, Kelley MA, Duff A, et al. The clinical course of pulmonary embolism. N Engl J Med 1992; 326:1240.

2. Kearon C, Akl EA, Comerota AJ, et al. Antithrombotic therapy for VTE disease: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest 2012;141:e419S.

3. Konstantinides SV, Meyer G, Becattini C, et al. ESC Scientific Document Group. 2019 ESC Guidelines for the diagnosis and management of acute pulmonary embolism developed in collaboration with the European Respiratory Society (ERS). Eur Heart J. 2020;41(4):543-603.

4. Gallo A, Valerio L, Barco S. The 2019 European guidelines on pulmonary embolism illustrated with the aid of an exemplary case report. Eur Heart J Case Rep. 2021 Jan 4;5(2):ytaa542.

5. 4.Pollack CV, Schreiber D, Goldhaber SZ, et al. Clinical characteristics, management, and outcomes of patients diagnosed with acute pulmonaryembolism in the emergency department: initial report of EMPEROR (Multicenter Emergency Medicine Pulmonary Embolism in the Real World Registry). J Am Coll Cardiol 2011;57(6):700–706.

The Importance of Early Diagnosis and Treatment of Necrotizing Fasciitis at the Emergency Department

Hüseyin ERGENÇ[1], Dilek DEMİR[1] Özgür SÖĞÜT[1],

Introduction

Necrotizing fasciitis (NF) infects subcutaneous tissue and fascia, progresses rapidly and is characterized by inflammation, thrombosis, and necrosis.[1] Necrotizing soft tissue infections include necrotizing forms of fasciitis, myositis, and cellulitis. Necrotizing infection is a very rare serious bacterial soft tissue infection that can infect all parts of the body, but most commonly involves the extremities (often the lower extremities). Necrotizing infection may be categorized based on microbiology and presence or absence of gas in the tissues. Necrotizing fasciitis is an infection of the deep soft tissues that results in progressive destruction of the muscle fascia and overlying subcutaneous fat. Infection may be polymicrobial (type I) or monomicrobial (type II). These infections are characterized by high mortality and clinically fulminant[2]. Early surgical intervention and antibiotherapy are the most important factors affecting the mortality of the patient. The incidence of necrotizing fasciitis varies between 0.3-5 cases per 100,000 population.[3] Accurate diagnosis and appropriate treatment must include early surgical intervention and antibiotic therapy. Overall mortality has been reported between 15-52%. Delaying first surgical intervention can increase the mortality up to 71%.

Case

A 67-year-old male presented to the Emergency Depatment with high fever and redness on the sole of the right foot. His past medical history includes hypertension, diabetes, and chronic renal failure not requiring dialysis. On admission, he was conscious and oriented, he had normal blood pressure (130/70 mmHg), high pulse rate (119/min) and high temperature (38.2 C). On physical examination, there was widespread redness and increased temperature on the dorsal right foot. A necrotic appearance was observed in the 5th toe of the right foot. In the peripheral artery examination, distal pulses were detected. On the X-ray radiographs, gas shadows that did not extend to the tibia were observed around the 4th and 5th toes of the right foot. It was evaluated in favor of necrotizing fasciitis. İn conclusion, our final diagnosis appears as necrotizing fasciitis requiring surgical debridement and antibiotherapy.

We started iv ampicillin sulbactam and ciprofloxacin as initial treatment and the patient was taken to emergency operation by the orthopedics clinic. He was underwent 5th finger amputation and, methylene-resistant staphylococcus aerius, enterobacter cloace and granulicatella adiacens were grown in the abscess and tissue culture taken during the operation. His antibiotics regiment has changed as Meropenem + vancomycin + clindamycin treatment but the patient's clinic did not improve, and a fourth finger amputation was performed as the second operation..After the second operation ,the patient has recovered well and was discharged home.

Conclusion

As stated in the literature, NF is a very rare disease that rapidly worsens within hours and has high mortality. We can reduce the risk of mortality with early aggressive surgical debridement and intravenous antibiotic therapy.

Keywords: Necrotizing fasciitis, infection, thrombolytic, fasciitis, cellulitis

References

[1] Stevens DL , Necrotizing Soft-Tissue Infections, N Engl J Med. 2017;377(23):2253.

[2] de Prost N, Lipman J, Mimoz O: Therapeutic targets in necrotizing soft tissue infections . Intensive Care Med.

2017, 43:1717-9. 10.1007/s00134-017-4813-1

[3] Das DK, Baker MG, Increasing incidence of necrotizing fasciitis in New Zealand: a nationwide study over the period 1990 to 2006 ,J Infect. 2011 Dec;63(6):429-33. Epub 2011 Aug 16.

[4] Anaya DA, Dellinger EP, Necrotizing soft-tissue infection: diagnosis and management, Clin Infect Dis. 2007;44(5):705.

Physician Rights from Past to Present

Adem AZ[1]

Istanbul Beylikduzu State Hospital, Department of Emergency Medicine, Istanbul, Turkey

Violence against healthcare employees is a common problem in almost the whole world. Especially the Coronavirus disease 2019 (COVID-19) pandemic has revealed that the personal rights of healthcare employees are very fragile and can be easily sacrificed. Studies showed that approximately 52% of physicians in the United Kingdom have been exposed to violence at some point in their professional life. Violence against healthcare employees is even more common in Middle East and Asian countries. Verbal violence can sometimes turn into threats and physical violence. Unfortunately, there are also examples where violence against physicians resulted in death. Such attacks cause physical and psychological pressure on health workers, as well as disruption of health services.

In classical antiquity, physicians were called "doctor" and "Medicus" in the west, and "physician" in the east, in the sense of scholar, measured, competent and wise. The World Medical Association defined medical doctors with the word "profession" in their declaration published at the 1986 World Medical Assembly. The term "Profession" means professional career. In addition, the origin of the word "profession" is to profess, "to swear to God, declare to the public, and fulfill one's duty" in the occupation one chooses. A physician was like a demigod of the ancient period with his knowledge of medicine. Today, they are professionals with responsibilities and duties to the public. This transformation in the social part of the physician has also changed the patient-physician relationship and the prevailing ethical principles in the field of medicine. We can examine this change by comparing two different declarations of the American Medical Association (AMA) that came approximately 150 years apart. The section titled "Of the obligations of patients to their physicians" of the 1847 AMA code of ethics and the statements it contains show that the physician's position in the classical period is still preserved for that day:

"The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness, to influence his attention to them."

The AMA's statement titled "Fundamental Elements of The Patient-Physician Relationship" published in 1990 reveals the current change:

"The patient has the right to make decisions regarding the health care that is recommended by his or her physician. Accordingly, patients may accept or refuse any recommended medical treatment."

The most remarkable feature of the 1847 AMA declaration is that the physician is non-negotiable. From the classical period to the 20th century, the physician has absolute dominance over the patient. 1847 AMA declaration stated that a physician's treatment cannot be discussed and is strictly obeyed. In the following period, hierarchies were broken in all social orders with the "1948 Universal Declaration of Human Rights", and the reflection of the concepts of equality for everyone over the patient-physician relationship was the protection of patient rights. The first works on patient rights started in the United States of America, and the first universal convention was the "Lisbon Declaration" which was accepted at the 34th General Assembly of the World Medical Association. In the following period, the "Amsterdam -The Declaration on the Promotion of Patients' Rights in Europe" and the "Bali Declaration of the World Medical Association" renewed and reinforced the patient rights clauses.

Liberty is the ability to do as one pleases. And the rights are the benefits of individuals protected by the legal. The basis of the relationship between liberty and rights is the protection of the law. Rights serve to protect the liberty of vulnerable individuals. Thus, while workers' rights are constantly current, employers' rights, which are

in a relatively strong position, remain negligible or employers' rights consist of responsibilities and obligations. Similarly, while patient rights are protected by national and international declarations, there is no internationally valid declaration on physician rights. For a striking example, searching for the term "physician rights" on Google, Google Scholar, or PubMed results in "patient rights" or "physician responsibilities".

In the last century, there has been a serious social transformation, and this has also deeply affected the patient-physician relationship. The physicians were substituted in the position of a worker, but their fundamental personal rights were not fully regulated. The violence against physicians, which has increased in recent years, and the COVID-19 pandemic have led to violations of the personal rights of healthcare workers. The necessity of a comprehensive physician rights agreement with legal validity for healthcare professionals is essential and urgent. Articles on personal rights, employee rights, and patient-physician relationships should be rearranged in this convention. The fundamental personal rights, the issue of violence in health, and employee rights of physicians such as resignation, appointment, annual leave, and refusing to care for patients who use verbal or physical violence should be included in both national and international declarations.

References

1- World Medical Association [Online]. WMA Declaration on Physician Independence and Professional Freedom. [Accessed: 8 August 2021]. https://www.wma.net/policies-post/wma-declaration-on-physician-independence-and-professional-freedom/

2- Hashimoto N. Professional autonomy. Japan Med Assoc J. 2006;49(3):125-7.

3- Young S. Beyond Rawls: an analysis of the Concept of Political Liberalism. 1st ed. Lanham, Md.: University Press of America; 2002.

4- Will JF. A brief historical and theoretical perspective on patient autonomy and medical decision making: Part II: The autonomy model. Chest. 2011;139(6):1491-7.

5- Medical Association (AMA). Code of Medical Ethics. 1st ed. Chicago: American Medical Association; 1847.

6- American Medical Association. Council on Ethical and Judicial Affairs. Fundamental elements of the patient-physician relationship. JAMA. 1990;264(24):3133.

7- Pellegrino ED. Patient and physician autonomy: conflicting rights and obligations in the physician-patient relationship. J Contemp Health Law Policy. 1994;10:47-68.

8- deBlois J, Norris P, O'Rouke K. A Primer for Health Care Ethics: Essays for a Pluralistic Society. 2nd ed. Washington DC: Georgetown University Press; 1994.

9- The Guardian [Online]. NHS staff forbidden from speaking out publicly about coronavirus. [Accessed: 9 April 2020]. https://www.theguardian.com/society/2020/apr/09/nhs-staff-forbidden-speaking-out-publicly-about-coronavirus

10- Ambesh P. Violence against doctors in the Indian subcontinent: A rising bane. Indian Heart J. 2016;68(5):749-50.

Tanısal Girişimler (LP, parasentez, periton lavajı) Yapalım mı?

DR. METİN YADİGAROĞLU

Samsun University Faculty of Medicine, Department of Emergency Medicine, Samsun/Turkey

Acil tıp her ne kadar dahili tıp branşı olarak görünse de aslında içeriğinde pek çok invaziv girişimi de barındıran bir branş olması nedeniyle cerrahi tıp alanına da dahil edilebilir. Acil serviste hastaların hem tanısal süreçlerinde hem de tedavi yaklaşımlarında ister dahili patolojiler ister cerrahi patolojiler olsun invaziv girişimlerin yeri yadsınamaz bir gerçektir.

Bu sunumda acil serviste tanı amacıyla daha önce pek çok kez yapılan invaziv işlemlerden lomber ponksiyon (LP), parasentez ve diyagnostik peritoneal lavaj (DPL) işlemlerinin klinik pratikteki yeri ve öneminden literatür örnekleri ile de bahsedilecektir. Bu bağlamda bu sunumun amacı bahsi geçen invaziv tanısal işlemlerin hangilerinin hangi amaçla yapılması ya da yapılmaması gerektiğini bildirmektir.

Tıpta uzmanlık kurulu müfredat oluşturma ve standart belirleme sistemi (TUKMOS), acil tıp uzmanlığı için çekirdek eğitim müfredatında 'girişimsel yetkinler' kısmında 1'den 4'e kadar numaralandırarak bir acil tıp uzmanlık asistanının uzmanlık sürecinde yapması gereken girişimsel işlemleri somutlandırmıştır. TUKMOS tarafından önerilen öğrenme ve öğretme yöntemleri üçe ayrılmaktadır: "Yapılandırılmış Eğitim Etkinlikleri" (YE), "Uygulamalı Eğitim Etkinlikleri" (UE) ve "Bağımsız ve Keşfederek Öğrenme Etkinlikleri" (BE).

Girişimsel işlemler "UE" nin bir alt dalı olarak (vizit, nöbet, girişim, ameliyat) kendine yer bulmuş olup TUKMOS tarafından "Tanı ve tedaviye yönelik tüm girişimler, eğitici tarafından gösterildikten sonra belli bir kılavuz eşliğinde basamak basamak gözlem altında uygulama yoluyla öğretilir. Her uygulama basamağı için öğrenciye geribildirim verilir. Öğrencinin doğru yaptıklarını doğru yapmaya devam etmesi, eksik ve gelişmesi gereken taraflarını düzeltebilmesi için öğrenciye zamanında, net ve yapıcı müdahalelerle teşvik edici ve destekleyici ya da uyarıcı ve yol gösterici geribildirimler verilmelidir. Her girişim için öğrenciye önceden belirlenmiş yetkinlik düzeyine ulaşacak sayıda tekrar yaptırılması sağlanır." cümleleriyle ifade edilmiştir. Konumuzun başlıklarından lomber ponksiyon ve abdominal parasentez girişimsel yetkinlikler çatısı altında kendine yer edinmiş iken DPL bu çatı altında yoktur. Onun yerine yazının ilerleyen cümlelerinde de anlatılacak olan "yatak başı acil ultrasonografi kullanımı" vardır.

Lomber Ponksiyon Endikasyonları

Bilgisayarlı tomografi (BT) taramaları ve manyetik rezonans görüntüleme (MRG) dahil olmak üzere daha iyi beyin görüntüleme prosedürlerinin ortaya çıkmasıyla LP için kesin endikasyonların sayısı azalmıştır, ancak acil LP hala iki ciddi durumu teşhis etmek için endikedir: Subaraknoidal kanama ve santral sinir sistemi (SSS) enfeksiyonları.

Baş ağrısı ön planda olmak üzere enfeksiyon, kanama, radiküler ağrı, geç başlangıçlı epidermoid tümör, sırt ağrısı ve en korkulanşekliyle serebral herniasyon LP işleminin komplikasyonlarını oluşturmaktadır. Bahsi geçen komplikasyonlardan da sakınmak adına LP yapılacak hastaların seçimi oldukça önem arz etmektedir. Bu bağlamda daha önceden de bahsettiğimiz BT negatif SAK şüphesi ve SSS enfeksiyonları şüphesi durumunda LP yapımı ile ilgili literatür önerilerini dikkate almakta yarar vardır.

2011 yılında yayınlanan Perry ve arkadaşlarının yaptığı 2000-2009 yılları arasındaki, 11 tane 3. basamak acil servis kliniğindeki SAK şüpheli 3132 hasta ile yapılan prospektif bir kohort çalışmada üçüncü nesil BT cihazları var iken baş ağrısının ilk 6 saati içerisinde LP yapılmaması gerektiği vurgulanmıştır. 2018 yılında bununla ilgili yapılmış olan bir derleme çalışmasında acil servise baş ağrısının ilk 6 saati içerisinde başvuran hastalarda negatif BT'nin çoğu zaman LP yapımını gereksiz kıldığını, sadece seçilmiş hasta popülasyonunda LP'nin gerekli olduğunu belirtilmiştir. 2018 yılında yayınlanan başka bir çalışmada da negatif bir BT'yi takiben yapılmış olan

LP'lerin hiç anevrizmatik SAK tanısı koydurmadığı, komplikasyon oranının %4 olduğu ve hastaların hastanede kalış süresinin yaklaşık 8 saate kadar uzadığı bildirilmiştir. Pouryahya ve arkadaşlarının 2020 yılında yayınlanmış retrospektif bir çalışmasında 2013-2018 yılları arasındaki hastaları retrospektif olarak taranmış ve sonuç olarak 388 LP'den sadece 1 tanesi BT negatif SAK olarak değerlendirilmiş. Buna göre de LP'nin sadece seçilmiş hastalarda yapılması gerektiği vurgulanmıştır.

BT'den sonra lomber ponksiyon yapma geleneği, BT'nin subaraknoid kanama tanısını gözden kaçırma olasılığının daha yüksek olduğu bir çağda başladı. Semptom başlangıcından 6 saatten sonra çekilen BT daha az duyarlı olsa da daha geç başvuran hastalarda subaraknoid kanama prevalansı da düşmektedir. Hastaların %10 ila %30'unda meydana gelen ve lomber ponksiyon sonuçlarını yorumlanamaz hale getirebilen mekanizmalar da mevcuttur. Negatif bir BT sonucundan sonra subaraknoid kanama prevalansının %1'den az olduğu göz önüne alındığında, %10 ila %30'luk insidans, yanlış pozitif lomber ponksiyon sonuçlarının yorumlanamaz olmasının, gerçek pozitif olanlardan önemli ölçüde daha fazla olacağı anlamına gelir. Baş ağrısının 6. saatinden sonra gelen, BT görüntülemesinde SAK tespit edilmeyen ancak SAK şüphesi hala devam eden hastada 'Ottowa SAK kuralları'nın dikkate alınması önerilmektedir. Acil klinisyenlerin lomber ponksiyon gerçekleştirmesi gereken SAH şüpheli hasta yüzdesi %1'dir; bu, semptom başlangıcından 6 saatten fazla bir süre sonra beyin BT taraması negatif olan hastalarda tahmini SAH olasılığından daha düşüktür. Bu durum bile LP yapımı için hasta seçiminin gerekli olduğu bir kez daha göz önüne sermektedir.

Günümüzde artık LP işlemi girişimsel radyologların da yetişmesi ile birlikte acil servis kliniklerinden dışarıya kayma eğilimindedir. Trunz ve arkadaşlarının 2021 yılında yapmış oldukları bir çalışma bu durumu destekler niteliktedir.

Santral sinir sistemi enfeksiyonu şüphesinde acil serviste tanısal LP yapılması önerilen bir işlem olmakla birlikte erişkin febril konvülziyon hastalarının değerlendirildiği bir çalışmada bilinç düzeyi iyiye yakın (GKS 13-15) ise ve bariz bir CRP yüksekliği yoksa o hasta nöbet geçirmiş olsa bile SSS enfeksiyonu olmama ihtimali yüksektir denmiştir.

Diagnostik Peritoneal Lavaj (DPL)

Hızlı, kolay ama invaziv; tarihsel altın standart bir yöntem olarak başlangıçta künt batın travmasında ancak sonra penetran travmada da kullanılmaya başlanan bir yöntemdir. Solid / içi boş organ ve diyafragma yaralanması için fikir verebilir. Ultrasonografi ve BT hemodinamik olarak stabil olan hastalarda DPL'nin yerini almıştır. ancak hala algoritmalarda yerini alan tek endikasyonu unstabil bir travma hastasında ultrasonografiye erişimin sağlanamaması durumudur.

Torakoabdominal kesici-delici alet yaralanması olan hastaların tedavisine ilişkin bir kılavuzda yazarlar, diyafram yaralanmasından şüphelenildiğinde; göğüs radyografisi ve ultrasonografi incelemesi negatif olduğunda laparoskopi yerine başlangıçta DPL kullanılmasını önermektedir

DPL, laparoskopi ile karşılaştırıldığında daha az invazivdir ve 5000/mL'lik kırmızı kan hücresi sayısı eşiği, yaralanmayı ekarte etmek için kabul edilebilir bir doğruluk sağlar. Literatür verileri incelendiğinde ise son yıllarda DPL'nin yerini artık ultrasonografinin aldığı görülmektedir.

Parasentez

Parasentez peritoneal kaviteden sıvı alınması işlemidir. Beş litreden fazla sıvı alınması tedavi amaçlı iken tanısal amaçlı paransentez için çok daha az miktarda sıvı alınması yeterlidir. Yeni başlangıçlı batın içi asiti olan ya da enfektif bir süreç (örneğin spontan bakteriyel peritonit) içerisinde olduğu düşünülen hastalar için acil serviste tanısal parasentez önerilmektedir. Uygun endikasyonları olan hastalarda abdominal parasentezin faydaları hemen hemen her zaman risklerinden daha ağır basar. Sıvının analizi, asitin nedenlerini ve bakteriyel enfeksiyon olasılığını belirlemeye yardımcı olur. Yatak başı kültür ekimi de yapılarak antibiyogram sonuçları da elde edile-

bilmektedir.

Özellikle spontan bakteriyel peritonit şüphesinde tanısal parasentez derhal yapılmalıdır. Parasentez için gecikme ya da parasentez yapamama, bu hastalarda artmış mortalite ile ilişkilendirilmiştir.

Parasentez işleminin net bir kontrendikasyonu yoktur. Asit sıvısı sızıntısı, kanama ve enfeksiyon paraentez işleminin komplikasyonlarından olup nadir ve önemsiz klinik durumlar olarak kalmaktadır. Bu komplikasyonları önlemek için de işlem esnasında ultrasonografi kullanımı önerilir.

Sonuç

LP için:

· Baş ağrısının ilk 6 saati içerisinde BT varken LP yapılması önerilmez.

· >6 saat, SAK şüphesinde LP seçilmiş hastalara yapılır (Ottowa SAK kuralları)

· SSS enfeksiyonu şüphesinde LP yapılması önerilir.

· Her nöbet geçiren, ateşi olan, erişkin hastaya bilinç durumu kötü değilse ve enfektif parametreleri yüksek değilse LP yapılmayabilir.

DPL için:

· Ultrasonografi varken artık DPL yapılmıyor.

· Sadece unstabil penetran travma hastasında CXR ve/veya FAST negatif ise DPL yapılması önerilir.

Parasentez için:

· Parasentez yapılması (tanısal ya da tedavi amaçlı) önerilen bir uygulamadır.

· Parasentez yaparken ultrasonografi kullanılması önerilir.

· Peritonit şüphesinde parasentezin geciktirilmeden yapılması önerilmektedir.

TİROİD ACİLLERİ

Onur KAPLAN

Sağlık Bilimleri Üniversitesi Haseki Sultangazi Eğitim ve Araştırma Hastanesi Acil Tıp Kliniği

Endokrin sistemle ilgili acil durumlar arasında tiroid bezi ve salgılarına bağlı gelişen bulgu ve belirtiler acil servislerde gözden kaçabilir. Bu bölümde tiroid hormonlarının etkisiyle gelişen iki önemli acil durum olan "Tiroid Fırtınası" ve "Miksödem Koması" irdelenecektir.

Tiroid Fırtınası

Tiroid fırtınası birçok sistemi tutan, tiroid hormon kaynaklı, ciddi, dekompanse hipermetabolik durumdur ve tirotoksikozun en şiddetli halidir. Akut, hayatı tehdit eden bir acildir. Erken tanı konulmadığında ya da tedavisiz bırakılırsa erişkinde ölüm oranı oldukça yüksektir (%90). Daha önce tanı almamış tirotoksikoz hastalarında, öyküde sinirlilik, ajitasyon, emosyonel labilite, aşırı iştaha rağmen zayıf kilo alımı, aşırı terleme, sıcak intoleransı ve dikkat eksikliğine bağlı kötü okul performansı sorgulanmalıdır.

Genel bulgular arasında ateş (sıklıkla >38,5°C), aşırı terleme, iştahsızlık ve kilo kaybı, solunum sıkıntısı, halsizlik, bulantı ve kusma, diyare, karın ağrısı, sarılık, anksiyete, konfüzyon, tremor, nöbet, davranış bozukluğu, nöbet, hipotansiyon, şok ve koma sayılabilir. Enfeksiyon, sepsis, travma, cerrahi, diyabetik ketoasidoz, tiroid ilacının bırakılması, iyot uygulanması, tiroid bezi palpasyonu, tiroid hormonu alımı, miyokard enfarktüs, serebrovasküler olay, pulmoner emboli, doğum, eklamsi gibi durular tiroid fırtınasını tetikleyebilir. Ayırıcı tanıda; enfeksiyon ve sepsis, semptomimetik alımı (kokain, amfetamin, ketamin ilaç alımı), sıcak çarpması, delirium tremens, malign hipertermi, malign nöroleptik sendrom, feokromositoma, ilaç bırakımı (kokain, opioid gibi), psikoz, organofosfat zehirlenmesi düşünülmelidir.

Tiroid fırtınası tanısı, laboratuvar test sonuçlarına göre değil klinik özelliklere göre konulup tedavisi testlerin sonuçlarından önce başlanılmalıdır. Genel bulgular artmış T3, T4 düzeyleri, artmış 24 saatlik iyot alımı ve baskılanmış TSH olarak belirtilebilir. EKG'de sinüs taşikardisi (en sık) ve atriyal fibrilasyon sık görülür.

Tedavide başta ateş düşürücü (aspirin kullanımı kontrendikedir) ve sıvı tedavisini içeren destek tedavisi, tiroid hormon salınımının engellenmesi (propiltiorasil, metimazol), yeni hormon salınımını engelleyici tedavi (iyot uygulanımı), periferik T4 hormonunun T3 'e dönüşümünü önleyici tedaviler (glikokortikoidler, propranolol) uygulanmalıdır.

Miksödem Koması

Miksodem koması (krizi) ise uzun süreli tedavi edilmemiş hipotiroidizmin hayatı tehdit eden bir komplikasyonudur. Endokrinolojik bir acil olup çoklu organ tutulumu gösterir ve genellikle altta yatan tetikleyici bir faktör bulunur. Tedavi edilen olgularda bile ölüm oranı yüksektir.

Uzun süreli hipotrioidi öyküsü çoğu olguda bulunsa da bazen hipotiroidinin ilk tanısı olarak görülebilir. Özellikle yaşlı kadınlarda ve kış aylarında daha sık görülür. Hipotermi genellikle en sık bulgudur. Bununla birlikte hipotansiyon, bradikardi, solunum sayısında azalma, nabız basıncında daralma, pretibial gode bırakmayan ödem, yüzde şişlik, ses kalınlaşması, makroglossi, tonsillerde, nazofarenkste ve larinkste büyüme, perikardiyal efüzyon, hipoventilasyon, plevral efüzyon ve konsolidasyon, ileus ya da asit nedenli karında distansiyon, azalmış ya da kaybolmuş barsak sesleri, mesane distansiyonu, ekstremitelerde soğukluk ve solukluk, ciltte kuruluk, incelme, ekimoz, konfüzyon, nöbet ve koma saptanabilecek diğer belirtilerdir.

Hastalar için kötü klinik seyir gösteren bulguları vücut sıcaklığının 93°F'ın altında olması, 72 saatlik tedaviye

rağmen olan ısrarcı hipotermi, ileri yaş, bradikardi (kalp hızı<44), sepsis, miyokard enfarktüsü ve hipotansiyon olarak tanımlanabilir. Tetikleyen nedenler arasında enfeksiyon başta olmak üzere, soğuk hava, travma, yanıklar, serebrovasküler olay, konjestif Tiroide Bağlı Acil Durumlar kalp yetmezliği, gastrointestinal kanama, hipoglisemi ve ilaçlar sayılabilir.

Tedavi laboratuvar sonuçları beklenmeden klinik tanıya göre bir an önce başlanılmalıdır. Serbest T4 ve T3 seviyeleri az ya da saptanamaz, TSH artışı görülür. Serum osmolaritesinde azalma ve hiponatremi sıktır. EKG'de sinüs bradikardisi, düşük voltaj, QT uzaması, T dalgasında düzleşme bulunabilir. Miksödem komasındaki hastalrın tedavisi yoğun bakımda sürdürülmelidir. Tedavide havayolunun korunması (gerekirse entübasyon) sıvı uygulaması, hipoterminin düzeltilmesi, hipotansiyonun düzeltilmesi (sıvı, vazopresör, hidrokortizon) hipogliseminin düzeltilmesi gibi destek tedavilerinin yanında tiroid replasman (levotiroksin) tedavisi önemlidir. Ayrıca tetikleyici nedenlere yönelik (en sık enfeksiyon) tedavi erken başlanılmalıdır.

Kaynaklar

1. Schraga ED, Naradzay JFX., Talavera F.,et al. Hypothyroidism and Myxedema Coma in Emergency Medicine. http://emedicine.medscape.com/article/768053-overview. Updated: Mar 29, 2012.
2. Schraga ED, Hemphill RR, Talavera F et al. Hyperthyroidism, Tyroid Storm, and Graves Disease in Emergency Medicine. http://emedicine.medscape.com/article/767130-overview Updated: Mar 29, 2012.
3. Bharaktiya S, Orlander PR, Woudhoue WR. Hypothyroidism. http://emedicine.medscape.com/article/122393-overview. Updated: Jul 22, 2011.
4. Nayak B, Burman K. Tyrotoxicosis and Tyroid Storm. Endocrinol Metab Clin N Am, 2006;35:663-86.
5. Wartofsky L. Myxedema Coma. Endocrinol Metab Clin N Am, 2006:35;687

THE ONLY SYMPTOM IS VOMITING I WAS SURPRISED

Özgür Deniz SADİOĞLU

Vomiting is the forced expulsion of stomach contents from the mouth by contraction of the abdominal muscles and diaphragm. It can be acute, chronic or recurrent. Regurgitation, on the other hand, is defined as the escape of stomach contents into the esophagus without difficulty (without nausea and retching) and filling the oral cavity. It is often encountered especially during childhood due to the fact that the lower muscle structure of the esophagus (sphincter, valve) does not fully mature and its length is short. While it is most common at four months, 88% of patients improve around the age of one year(1).

Detailed dietary history of the patient first, defecation habits, previous surgery, hospital stay, drugs, kinship, sibling/family history, detailed physical examination and growth assessment (VA, height, BMI) should be done in the emergency room (2). Life-threatening diseases should be excluded quickly. These are intestinal obstruction, diabetic ketoacidosis , adrenal crisis, toxic intake, events that increase intracranial pressure. During this period, the etiology should be searched according to the patient's age, and if there is dehydration, hypokalemia and metabolic disorders, it should be corrected quickly (1,3).

It is a careful investigation of which system the symptoms and signs are related to. For this, its symptoms should be evaluated individually. If the patient has acidotic breathing, renal insufficiency, diabetic ketoacidosis, renal tubular acidosis, metabolic diseases, severe diarrhea and shock should be excluded (4).

There is no need to order any examination in a patient who looks good, has no alarming signs and complications, a physical examination and a child whose growth has been assessed as normal, the cause of vomiting is known to be benign. Blood gas, complete blood count, electrolytes, blood sugar, renal function tests and standing direct abdominal X-ray should be requested in a child whose alarm findings,vital signs with suspected GIS obstruction are abnormal and dehydrated (1,5).

If there is mild dehydration and he is able to take oral, he can be monitored with outpatient oral intake monitoring and sent home. IV hydration should be given to patients whose oral intake is not sufficient or who are moderately dehydrated. If the patient has signs of hypotension / shock, Physiological Saline 20ml/kg IV infusion loading is given every 1 hour. The liquid to be used for maintenance IV hydration in children should be 5% dextrose 0.9% NaCl (recommended) or 5% dextrose 0.45%NaCl (5,6).

REFERENCES:

1. Karhan A.N , Kusma nedenleri ve tedavide güncel yaklaşımlar, Mersin Univ Saglık Bilim Derg 2022;15(Özel Sayı-1, 21. Mersin Pediatri Günleri):24-27
2. Kasap E, Yüceyar H Bulantı - Kusma ve Yaklaşım, güncel gastroenteroloji 2009,13/3:148-152
3. Malagelade JR, Malagelade C. Nause and vomiting. Sleisenger and Fortran's Gastrointestinal and Liver Disease. 2006;143-58
4. Quigley LM, Hasler WL, Parkman HP. AGA technical review on nause and vomiting. Gastroenterology 2001;120:263-86
5. Heckroth M, Luckett RT, Moser C et al, Nausea and Vomiting in 2021: A Comprehensive Update J Clin Gastroenteroli. 2021 Apr 1;55(4):279-299. doi: 10.1097
6. Niño-Serna LF, Acosta-Reyes J, Areti-Angeliki V. et al, Antiemetics in Children With Acute Gastroenteritis: A Meta-analysis, PEDIATRICS Volume 145, number 4, April 2020

RESUSİTATİF BİYOBELİRTEÇLERE GEREK KALDI MI?

Müge Arslan Erduhan

Department of Emergency Medicine, University of Health Sciences, Haseki Training and Research Center, Istanbul, Turkey

Biyobelirteçler kolayca ölçülebilir, tekrarlanabilir, duyarlı, organa özgü, uygun maliyetli, ek işlem gereksinimi olmayan ve kolayca yorumlanabilir olmalıdır.

Kardiyopulmoner resüsitasyon (KPR) Hayati fonksiyonları veya yaşam bulguları olmayan bir insanda, kurtarıcılar (halktan veya sağlık alanından kişiler) tarafından kalbin, akciğerin ve beynin yeniden canlandırılması işlemi olarak tanımlanabilir.2015 KPR kılavuzundan sonra yaşam zincirine eklenen recovery /iyileşme aşaması resusitatif biyobelirteçlerin öngörmeye çalıştığı aşama olarak dikkat çekmektedir.

İyileşen ve düzenlenen resüsitasyon uygulamalarına rağmen, hastane dışı kardiyak arrestlerde hastaneden taburcu olabilen sağ kalımlar ortalama %8, hastane içi arrestlerde %15-34 oranındadır (ERC 2021). AHA 2020 resüsitasyon kılavuzunda hastane dışı kardiyak arrestlerde sağ kalım %10,4 (nörolojik sağ kalım %8,2), hastane içi kardiyak arrestlerde sağ kalım %25,8 (nörolojik sağ kalım %82) oranlarında görülmektedir. Spontan dolaşımın başarılı bir şekilde geri dönüşü (ROSC), kalp durmasından tam iyileşme hedefine doğru ilk adımdır. Arrestin nedenine ve kardiyak arrest sonrası sendromun ciddiyetine bağlı olarak, birçok hasta çoklu organ desteğine ihtiyaç duyacaktır. Resüsitasyon sonrası dönemde aldıkları tedavi, genel sonucu ve özellikle nörolojik iyileşmenin kalitesini önemli ölçüde etkiler. Hastane dışı kalp durması sonrasında yoğun bakım ünitesine kabul edildikten sonra ölenlerin üçte ikisi nörolojik hasardan ölmektedir; bu, resüsitasyon sonrası bakım için hedef sıcaklık yönetiminin (TTM) uygulanmasından önce ve sonra gösterilmiştir. Bu ölümlerin çoğu, kötü bir nörolojik sonucun tahminine dayalı olarak, destek tedavinin aktif olarak kesilmesinden kaynaklanmaktadır.

Uygun resüsitasyon sonrası tedaviyi planlamak için kardiyopulmoner arrestin neden olduğu hasarın erken belirlenmesi önemlidir. PostCPR hastaların sonlanımlarının tahmin edilebilmesi etik, tıbbi ve ekonomik açıdan önemli bir zorluk olarak düşünülmüştür ve bununla ilgili literatürde birçok çalışma mevcuttur. Ülkemizde ve dünyada yapılan çalışmalardan yola çıkarak yaptığımız literatür taramalarında 1995'de serum potasyum düzeyi bakmakla başlayan süreci 1997'de Nöron spesfik enolaz(NSE) ve S100B takip etmiştir. Plazminojen aktivatör inhibitör tip1(2001), plazma von willebrand/intracellüler adhesiv protein (2003), iskemi modifiye edici albümin/malondialdehid (2009), matriks metalloproteinaz 9 (2012) ve 2016'da laktat ile çalışmalar devam etmiştir. Biyobelirteçlerden hastaların prognozunu tahmin etmek amacıyla son yıllarda GFAP (2017), Nfl(2019), serum Tau(2020) ve serum copeptin (2020) çalışmaları yapılmıştır.

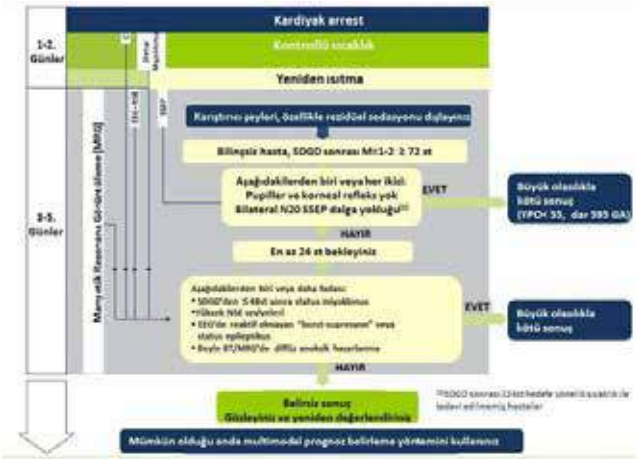
NSE ve protein S100B beyin hasarından sonra beyin omurilik sıvısına ve ardından sistemik dolaşıma salınır. Bu biyobelirteçlerin kardiyak arrest sonrası kanda değerlerinin ölçümü anoksik-iskemik nörolojik hasarın boyutuyla ve dolayısıyla nörolojik sonucun ciddiyeti ile ilişkili olması muhtemeldir.GFAP, arrestten sonra nörolojik sonucun yeni bir prognostik biyobelirteci olup astrositik hücre iskeletinin monomerik bir ara filament bileşenidir. Travmatik beyin hasarı hastalarında serebral hasarın spesifik bir belirteci olduğu gösterilmiştir ve yalnızca beyinden türetilen bir proteindir. Kalp durmasından sonra CRP, TNF-α, IL-1β, -6, -8 ve PCT dahil olmak üzere bir dizi proinflamatuar biyobelirteç kana salınır. Tüm bu biyobelirteçler, 'sepsis benzeri sendrom' olarak adlandırılan kalp durmasından sonra abartılı SIRS gelişimine katkıda bulunur. CK-MB, cTnI, cTnT, BNP kardiyovasküler hasar göstergesi biyomarkerlardır. Tüm bu biyomarkerları birlikte değerlendirdiğimizde sık kullanılan biyomarkerların kullanım endikasyonları ve limitasyonları Tablo-1'de belirtilmiştir.

Tablo 1: Kardiyak Arrest Sonrası Sık Kullanılan Biyobelirteçler

Biyomarker	Kullanım Endikasyonu	Limitasyonları
Troponin	AKS tanısı	• EKG ile komşine edilmeli • ST Elvasyonu olduğunda spesifik • Koroner anjigrofi sonrası yükselebilir
CK- MB	AKS tanısı	• AKS'ye spesifik değil • KPR sebepli yükselebilir • Defibrilasyon sebepli yükselebilir
BNP	Klinik öngörü	• Kısıtlı çalışma mevcut • Kalp yetmezliğiyle ilgili diğer koşullarda da yükselir
NSE	Klinik öngörü	• Hemoliz sonrası yükselir • Sol ventrikül destekleyici cihazlar/intraaortik balon pompası kullanımında yükselir • Bazı kanserlerde yükselir
S100B	Klinik öngörü	• Kalp ve aort hasarında yükselir • Bazı kanserlerde yükselir
Prokalsitonin	Klinik öngörü	• İnflamatuar koşullarda yükselir • Temelde var olan enfeksiyon varlığında yükselir
Nfl	Klinik öngörü	• Hemoliz sonrası yükselir • Kafa travmaları sonrası düşmesi haftalar/aylar sürdüğünden yanıltıcı olabilir

2015 ERC (European Resuscitation Council), ve ESCIM (European Society Of Intensive Care Medicine) Postresusitatif Bakım Kılavuzu'nda Kardiyak arrest sonrası komadaki hastanın prognozunun belirlenmesinde dikkatli bir klinik nörolojik muayene temel olmaya devam etmektedir. Global post-anoksik hasarı takiben beyin iyileşme süreci, çoğu hastada arrestten sonraki 72 saat içinde tamamlanmaktadır. 12 saat ve/veya daha az süre önce sedatif alan postresusitatif hastaların muayene bulgularının güvenilirliği düşüktür. Belirleyici değerlendirme yapılmadan önce, önemli karıştırıcılar hariç tutulmalıdır (hipotermi, şiddetli hipotansiyon, hipoglisemi ve metabolik ve solunum bozuklukları vb.). Prognostik strateji algoritması , ROSC' den 72 saat sonra ağrıya ekstansör motor yanıtı olmayan veya komada kalan tüm hastalara uygulanabilir. Daha önceki prognostik testlerin sonuçları bu zaman noktasında dikkate alınır. 2015 kılavuzunda bahsi geçen prognoz belirleme stratejisi aşağıda Şekil-1 de gösterilmiştir.

Şekil 1:Prognoz Belirleme Strateji Algoritması 2015

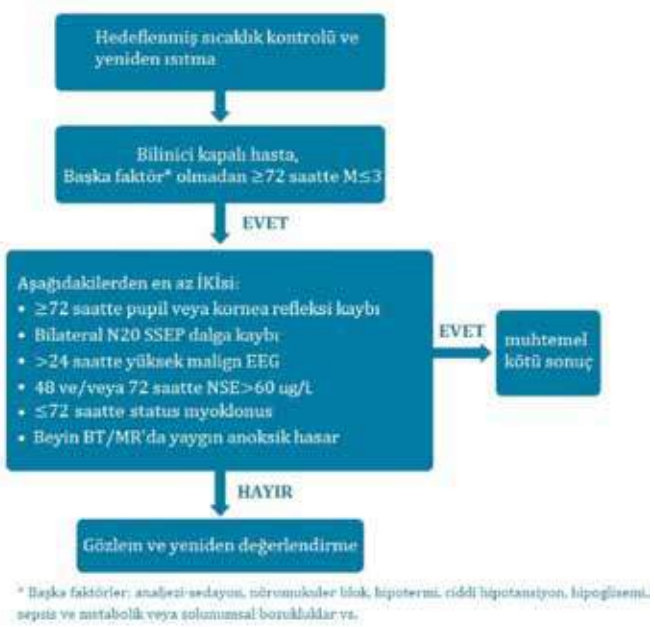


Şekil 1.16. Prognoz belirleme stratejisi algoritması. EEG – elektroensefalografi; NSA – nöron spesifik enolaz; SSEP – somatosensoriyal uyarılmış potansiyeller; SDGD – spontan dolaşımın geri dönmesi; M – Glasgow koma skalasında motor yanıt; YPO – yanlış pozitiflik oranı; GA – güven aralığı.

2021 ERC ve ESCIM Postresusitatif Bakım Kılavuzunda ise yanlış pozitifleri ortadan kaldırmak için tek bir testin yeterli özgüllüğü olmadığı için prognoz öngörüsünün her zaman çok modlu bir yaklaşım kullanılarak yapılması önerilmektedir (güçlü öneri, çok düşük kesinlikte kanıt). Kardiyak arrest sonrası komada olan yetişkinlerin nörolojik sonuçlarını tahmin etmek için ROSC' den sonraki 72 saat içinde nörona özgü enolazın (NSE) diğer testlerle kombinasyon halinde kullanılmasını önerilmektedir (zayıf öneri, çok düşük kesinlikte kanıt). Eşik değerle ilgili

kesin bir fikir birliği sağlanmamıştır.2021'de nörolojik prognoz belirleme stratejisi değişmiş ve Şekil-2'de gösterilmiştir.

Şekil 2: Prognoz belirleme stratejisi algortiması 2021



Tüm bu çalışmaların sonucunda beklentilerimizi karşılayacak biyobelirtecimiz olmamasına rağmen uygun bir biyobelirteç arayışımızın süreceğini söylemek çok da yanlış olmaz. Son yıllarda kılavuzlarda biyobelirteçlerin de yer alıyor olması bu konudaki düşüncemizin de kanıtı niteliğindedir.

KEYWORDS: Emergency Department, Mortality, Crowding

Kaynaklar

1. Nolan, Jerry P., et al. "European resuscitation council and European society of intensive care medicine guidelines 2021: post-resuscitation care." *Resuscitation* 161 (2021): 220-269.
2. Nolan, Jerry P., et al. "European resuscitation council and European society of intensive care medicine 2015 guidelines for post-resuscitation care." *Intensive care medicine* 41.12 (2015): 2039-2056.
3. Shinozaki, K., Oda, S., Sadahiro, T., Nakamura, M., Abe, R., Nakada, T., … Hirasawa, H. (2009). *Serum S-100B is superior to neuron-specific enolase as an early prognostic biomarker for neurological outcome following cardiopulmonary resuscitation. Resuscitation, 80(8), 870–875.* doi:10.1016/j.resuscitation.2009
4. Quinten, V. M., van Meurs, M., ter Maaten, J. C., & Ligtenberg, J. J. M. (2016). *Trends in vital signs and routine biomarkers in patients with sepsis during resuscitation in the emergency department: a prospective observational pilot study. BMJ Open, 6(5), e009718.* doi:10.1136/bmjopen-2015-009718
5. Park, S. O., Ahn, J. Y., Lee, Y. H., Kim, Y. J., Min, Y. H., Ahn, H. C., … Shin, D. H. (2016). *Plasma neutrophil gelatinase-associated lipocalin as an early predicting biomarker of acute kidney injury and clinical outcomes after recovery of spontaneous circulation in out-of-hospital cardiac arrest patients. Resuscitation, 101, 84–90.* doi:10.1016/j.resuscitation.2016
6. Helwig, K., Seeger, F., Hölschermann, H., Lischke, V., Gerriets, T., Niessner, M., & Foerch, C. (2017). *Elevated*

Serum Glial Fibrillary Acidic Protein (GFAP) is Associated with Poor Functional Outcome After Cardiopulmonary Resuscitation. Neurocritical Care, 27(1), 68–74. doi:10.1007/s12028-016-0371-6

7. Bloos, F., Zhang, Z., & Boulain, T. (2016). *Lactate-guided resuscitation saves lives: yes. Intensive Care Medicine, 42(3), 466–469.* doi:10.1007/s00134-015-4196-0
8. Hasslacher, J., Rass, V., Beer, R., Ulmer, H., Humpel, C., Schiefecker, A., … Helbok, R. (2020). *Serum Tau as a predictor for neurological outcome after cardiopulmonary resuscitation. Resuscitation.* doi:10.1016/j.resuscitation.2020.
9. Elmer, J., Jeong, K., Abebe, K. Z., Guyette, F. X., Murugan, R., Callaway, C. W., & Rittenberger, J. C. (2016). *Serum Neutrophil Gelatinase–Associated Lipocalin Predicts Survival After Resuscitation From Cardiac Arrest. Critical Care Medicine, 44(1), 111–119.* doi:10.1097/ccm.0000000000001357
10. Cakmak, S., Sogut, O., Albayrak, L., & Yildiz, A. (2020). *Serum Copeptin Levels Predict the Return of Spontaneous Circulation and the Short-Term Prognosis of Patients with Out-of-Hospital Cardiac Arrest: A Randomized Control Study. Prehospital and Disaster Medicine, 1–8.* doi:10.1017/s1049023x2000014x
11. Wijdicks, E. F. M., Hijdra, A., Young, G. B., Bassetti, C. L., & Wiebe, S. (2006). *Practice Parameter: Prediction of outcome in comatose survivors after cardiopulmonary resuscitation (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology, 67(2), 203–210.* doi:10.1212/01.wnl.0000227183.213
12. Turedi, S., Gunduz, A., Mentese, A., Dasdibi, B., Karahan, S. C., Sahin, A., … Alver, A. (2009). *Investigation of the possibility of using ischemia-modified albumin as a novel and early prognostic marker in cardiac arrest patients after cardiopulmonary resuscitation. Resuscitation, 80(9), 994–999.* doi:10.1016/j.resuscitation.2009.
13. Turkdogan, K. A., Zorlu, A., Guven, F. M. K., Ekinozu, I., Eryigit, U., & Yilmaz, M. B. (2012). *Usefulness of admission matrix metalloproteinase 9 as a predictor of early mortality after cardiopulmonary resuscitation in cardiac arrest patients. The American Journal of Emergency Medicine, 30(9), 1804–1809.* doi:10.1016/j.ajem.2012.02.017
14. Scolletta, S., Donadello, K., Santonocito, C., Franchi, F., & Taccone, F. S. (2012). *Biomarkers as predictors of outcome after cardiac arrest. Expert Review of Clinical Pharmacology, 5(6), 687–699.* doi:10.1586/ecp.12.64
15. Horn, J., Cronberg, T., & Taccone, F. S. (2014). *Prognostication after cardiac arrest. Current Opinion in Critical Care, 20(3), 280–286.* doi:10.1097/mcc.0000000000000085
16. Steffen, I. G., Hasper, D., Ploner, C. J., Schefold, J. C., Dietz, E., Martens, F., … Storm, C. (2010). *Mild therapeutic hypothermia alters neuron specific enolase as an outcome predictor after resuscitation: 97 prospective hypothermia patients compared to 133 historical non-hypothermia patients. Critical Care, 14(2), R69.* doi:10.1186/cc8975
17. Moseby-Knappe, Marion, et al. "Serum neurofilament light chain for prognosis of outcome after cardiac arrest." *JAMA neurology* 76.1 (2019): 64-71.

Retrospective Analysis of Patients Admitted to the Emergency Department for Malaria

Semih Korkut[1], Ertuğrul Altuğ[1], Onur Özalp[2], Serel Kabasakal[1], Melih Görkem Şensoy[1], Ramazan Güven[1]

[1]Başakşehir Çam and Sakura City Hospital, Emergency Department

[2]Başakşehir Çam and Sakura City Hospital, Enfectious Diseases Department

Keywords: Malaria, Emergency Department, CRP

INTRODUCTION: Malaria is a parasitic infection of global importance. In Turkey malaria is endemic in southeast regions and sporadic in the remaining. In addition, our country welcomes many turists and receives immiggrants from endemic countries. As a result, the number of malaria patients that admits to our clinic are significantly high. In this study, we aimed to evaluate demographic characteristics and clinical features of the patients with malaria admitted to our emergency department since April 2020.

MATERIALS-METHODS: Our study is a retrospective observational study. The study was conducted on patients diagnosed with Malaria in Training and Research Hospital Emergency Department between April 2020 - August 2022. Epidemiologic, clinical, diagnostic, and therapeutic features of 16 patients with malaria (0 female, 16 male, mean age: 32,12±9,25 years, range: 21-56) followed in our hospital.

RESULTS: Patients who are admitted to emergency department with various symptoms aged over 18 years are included in our study. The youngest of patients was 21 years old whereas oldest one is 56 years old. Mean age is 32.125 and all of them are male. All of the patients have travel history to the Africa region. All of the patient were hospitalized, one of them was followed up in intensive care unit. None of the patients has a mortal clinical course during follow up. 15 of 16 patients' Peripheral Blood Smear test were concluded as Plasmodium Falciparium, 1 of them was Plasmoidium Malaria. CRP and Procalcitonin levels of all patients were found distinctly high.

Table-1: Demographical Features, Mortality-Morbidity, Hospitalization, Peripheral Blood Smear

Travel History	16
Plasmodium Falciparum	15
P. Malaria	1
Man	16
Women	0
Hospitalization	16
Intensive Care Unit	1
Mortality	0

Table-2: Mean and Standard Error of Mean (SEM)

Age	32,12 ± 9,25
CRP	132,94 ± 73,57
WBC	7,6 ± 3,99
Procalcitonin	13,38 ± 15,92

DISCUSSION: This study was conducted on patients diagnosed with Malaria in Emergency Department have in-

creased level of CRP with the average of 132,94 ± 73,5. In a study conducted by Paul, Rudrajit et al., it was shown that average CRP levels were quite high in malaria patients (31.29 ± 20.4 mg/L). (1) Our study corroborates with the finding of the study published by Ozlem Gul et al that the patients in the study were all man and all of them has a travel history to endemic region. (2) In the literature, it has been reported that all study participants had a mean age of 27 years (median 24 years; IQR 20–32 years) and were predominantly male (91.0%). (3) This result of literature corresponds exactly to the result of our study in the aspect of male predominance and average age. (3)

CONCLUSION: As a result, Malaria should be taken into consideration as a diagnosis in emergency department in patients who are admitted to hospital with a fever, gastrointestinal symptoms, travel history to the endemic regions. On the other hand, CRP and Procalcitonin levels can be a guide on the way to diagnosis of Malaria.

REFERENCES

1. Paul, Rudrajit et al. "Study of C reactive protein as a prognostic marker in malaria from Eastern India." Advanced biomedical research vol. 1 (2012): 41. doi:10.4103/2277-9175.100140 (1)
2. Gul, Ozlem & Dilek, Yıldız & Gündüz, Alper & Hamidi, Aziz & Oncul, Ahsen & Konuklar, Ahmet & Özyiğitoğlu, Derya & Uzun, Nuray & Dökmetaş, İlyas. (2016). Kliniğimizde Yatarak Takip Edilen Sıtma Olgularının Retrospektif Değerlendirilmesi. SiSli Etfal Hastanesi Tip Bulteni / The Medical Bulletin of Sisli Hospital. 50. 142-146. 10.5350/SEMB.20160326020102.. (2)
3. Chery, Laura et al. "Demographic and clinical profiles of Plasmodium falciparum and Plasmodium vivax patients at a tertiary care centre in southwestern India." Malaria journal vol. 15,1 569. 25 Nov. 2016, doi:10.1186/s12936-016-1619-5 (3)
4. BOZKURT Selim,KÖKOĞLU Faruk,OKUMUŞ Mehmet,İNCİ Mehmet Fatih,GÜLER Selma Sıtma: acilde unutulmaması gereken bir hastalık; olgu sunumu. Türkiye Acil Tıp Dergisi 13, no.4 (2013): 182 - 185.
5. Joel G Breman, MD, DTPH, Johanna Daily, MD, MSc, Elinor L Baron, MD, DTMH Malaria: Epidemiology, prevention, and control, Literature review, Aug 15, 2022, UpToDate.
6. https://www.who.int/publications/i/item/guidelines-for-malaria
7. Piyal B, Akdur R, Ocaktan E, Yozgatligil C. An analysis of the prevalence of malaria in Turkey over the last 85 years. Pathog Glob Health. 2013;107(1):30-34. doi:10.1179/2047773212Y.0000000064
8. Özbilgina A, Topluoglu S, Es S, Islek E, Mollahaliloglu S, Erkoc Y. Malaria in Turkey: successful control and strategies for achieving elimination. Acta Trop. 2011;120(1-2):15-23. doi:10.1016/j.actatropica.2011.06.011
9. Mert A, Ozaras R, Tabak F, Bilir M, Ozturk R, Aktuglu Y. Malaria in Turkey: a review of 33 cases. Eur J Epidemiol. 2003;18(6):579-582. doi:10.1023/a:1024648902848

Evaluation of Consultation Periods in Emergency Service Applications in Geriatric Patients

Ertuğrul Altuğ[1], Ahmet Sırrı Yılmaz[1], Kemal Şener[1], Mücahit Kapçı[1], Semih Korkut[1], Ramazan Güven[1]

[1] Basaksehir Cam and Sakura City Hospital, Emergency Department

INTRODUCTION: Thousands of geriatric patients are admitted to emergency services every day. Comorbidity in these patients complicates the management of the patients. In addition, difficulties in getting healthcare services for geriatric patients increase mortality rates. In this preliminary study, the time spent for consultation in the emergency department was evaluated in a single-center retrospective data analysis of a group of patients over 65 years of age who applied to the emergency department and were hospitalized.

METHOD: In this retrospective study, patients over the age of 65 who applied to the emergency department between January 2022 and June 2022 and were hospitalized for their related clinical condition were included. As a result of the scans on the Hospital Information Management System (HBYS), the branch for which the first consultation was requested, the total number of consultations requested during the period until hospitalization, the branch for which consultation was requested the most, and the time from the first consultation to hospitalization were evaluated.

RESULTS: A total of 106 patients, 45 females and 61 males, over the age of 65, who applied to the emergency department with various complaints, were included in the study. The median value for age distribution was 76.03 (65-90). The average hospitalization time of the patients was 861 minutes. The average number of consultations of the patients who were admitted to the hospital was 9. The 1-month mortality rate of the patients included in the study was 27. Of the patient group included in the study, the most hospitalization was to the internal medicine service with 44 people. 27 of the patients included in the study were first consulted to the internal medicine department. Again, within the scope of the study, the department with the most consultation was determined as the department of internal medicine.

Table 1. Information regarding the demographic characteristics of the patients and consultations

Age	76,03 (65-90)*
Sex Female (%) Male (%)	 45 (%42.5) 61 (%57.5)
Mortality Count	27
Average length of hospitalization(min-max)	861 dakika(53-2638)
Number of Consultations	9 (±7)

Table 2. Hospitals and the number of hospitalizations

Internal medicine	44
General Surgery	5
Infection diseases	1
Cardiology	3

Pulmonologist	9
Coroner ICU	7
Orthopedics and Traumatology	10
General ICU	13
Pandemic Service	4
Neurology ICU	1
Urology	2
Cardiovascular Surgery ICU	2
Neurology	2
Thoracic Surgery	1
Pandemic ICU	1
Neurosurgery	1

Table 3. Number of clinics for which initial consultation is requested

Internal medicine	27
General SurgeryInfection diseases	13
Infection diseases	4
Cardiology	20
Pulmonologist	5
Orthopedics and Traumatology	7
General ICU	5
Urology	2
Neurology	6
Thoracic Surgery	6
Neurosurgery	6
Interventional radiology	2
gastroenterology	1
Cardiovascular Surgery	2
Oto-rhino-laryngologie	1

DISCUSSION: Considering the number of admissions to the emergency services in our country, it is seen that the population admits more patients than any other clinic, with more than twice as many applications. In a clinic with such a large number of applications, it is essential to manage the number of intensive patients in a way that minimizes mortality. One of the important issues in managing this crowd is that the consultations requested by the admitted patients are concluded clearly and quickly. As Cortazzo et al.(1) stated in their study, the rate of consultation in the USA is approximately 40%. Due to the high number of patients who requested consultation, the rapid results of the emergency service consultations resulted in the fact that almost half of the patients who applied to the emergency room were discharged or interned and followed up in the emergency room. This means that it will result in a quick result and the emergency team can allocate time and resources to the new patient earlier. As Robert et al.(2) stated in their study, one of the reasons for the prolonged consultation times in emergency services and indirectly increasing the emergency room crowding is that the limited number of beds cannot be used efficiently by the relevant clinics and this situation increases the stress on the system. According to the Canadian Association of Emergency Physicians (CAEP), one of the ways to prevent overcrowding in emergency

departments is to set acceptable consultation times and specific time frames.(3)

CONCLUSION: More than one consultation is made before internationalization in geriatric patients when they apply to the emergency service. It was seen that the clinic applied for in the first consultation request was internal medicine. In addition, the department where the consultation was made and the department where the emergency service was hospitalized were found to be compatible with each other.

REFERENCES

1- Cortazzo JM, Guertler AT, Rice MM. Consultation and referral patterns from a teaching hospital emergency department. Am J Emerg Med 1993;11:456-9.

2- Woods RA, Lee R, Ospina MB, Blitz S, Lari H, Bullard MJ, Rowe BH. Consultation outcomes in the emergency department: exploring rates and complexity. CJEM. 2008 Jan;10(1):25-31. doi: 10.1017/s1481803500009970. PMID: 18226315.

3- Canadian Association of Emergency Physicians; National Emergency Nurses Affiliation. Joint position statement: access to acute care in the setting of emergency department overcrowding. CJEM 2003;5:81-6.

Mega Thrombus And Cardıac Arrest In The Left Ventrıcle After COVID-19

Mehmet Tahir Gökdemir[1], Dağıstan Sakçi[1], Gül Şahika Gökdemir[3]

[1]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin

[2]Mardin Training and Research Hospital, Emergency Department, Mardin

[3]Diyarbakir Children's Hospital, Physiology, Diyarbakir

ABSTRACT

Hypoxemia causes decreased energy supply to cardiomyocytes, increased intracellular acidosis and calcium influx, and facilitated apoptosis of myocytes. Arterial and pulmonary thrombotic coagulopathy has also been reported in severe SARS CoV-2 infection. In this presentation, we presented a case of 57 years old who had COVID 19 was found to have mega thrombus in the left ventricle. In the CT angio, a mega thrombus with hypodense appearance was detected in the left atrium. The patient's ECG was unremarkable except for sinus tachycardia. The patient, who was admitted to the hospital, died shortly after he was transferred to the intensive care unit.

Keywords: Covid 19, Mega Thrombus, Cardiac Arrest

Background

Coronary macro-thrombosis may predispose to stress-induced activation of the autonomic nervous system causing coronary vasoconstriction with endothelial and smooth muscle cell dysfunction, macrophage and platelet activation, ultimately accelerating atheromatous plaque instability and rupture. Hypoxemia secondary to severe lung injury in SARS-CoV-2 infection is also believed to contribute to cardiotoxicity. Hypoxemia causes decreased energy supply to cardiomyocytes, increased intracellular acidosis and calcium influx, and facilitated apoptosis of myocytes. Arterial and pulmonary microthrombotic coagulopathy has also been reported in severe SARS CoV-2 infection (1). It is known to induce a prothrombotic state, particularly manifested by microthrombosis, as observed in post-mortem specimens from individuals with COVID-19 who died after SARS-CoV-2 infection (2). This thrombotic state resembles a process known as immunothrombosis, in which the immune and coagulation systems cooperate to block pathogens and limit their spread. An important pathophysiological feature of COVID-19 is the development of a prothrombotic state. High fibrinogen, von Willebrand factor (VWF) and fibrin degradation product D-dimer in the blood cause a coagulopathy specific to COVID-19. This suggests that a severe inflammatory process rather than classical disseminated intravascular coagulation (DIC) causes a hypercoagulation process. In this presentation, we presented a case of 57 years old who had COVID 19 was found to have mega thrombus in the left ventricle and admitted to emergency department with cardiac arrest.

Case report

A 57-year-old male patient brought to the emergency department with cardiac arrest. In the patient's story, we learned that he was hospitalized 2 months ago due to COVID 19. The patient was hospitalized for 10 days due to COVID 19 in 2 months ago. His thorax CT showed pneumonic infiltration compatible with COVID 19 (Fig.1). The patient, who developed sudden palpitations and shortness of breath approximately two months after he was discharged from the hospital, was brought to our hospital as an arrest. The patient was returned after resuscitation. Brain MRI was performed to exclude intracranial hemorrhage and ischemia. In the CT angio, a thrombus of approximately 41 x 26 mm with hypodense appearance was detected in the left atrium (Fig.2). The patient's ECG was unremarkable except for sinus tachycardia. The patient, who was admitted to the hospital, died shortly after he was transferred to the intensive care unit.

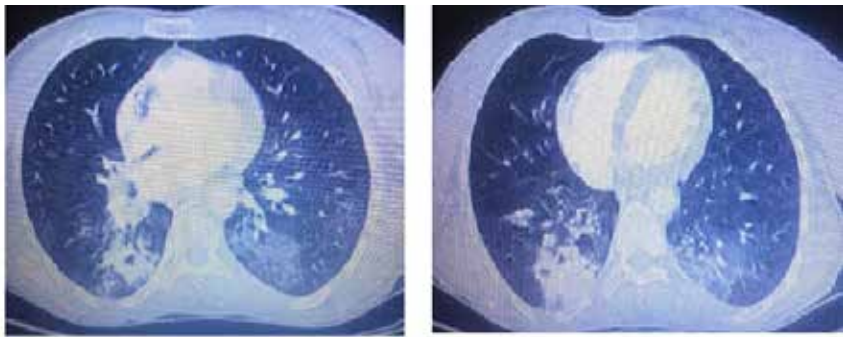


Fig.1. Pneumonic infiltration compatible with COVID 19 seen in Thorax CT

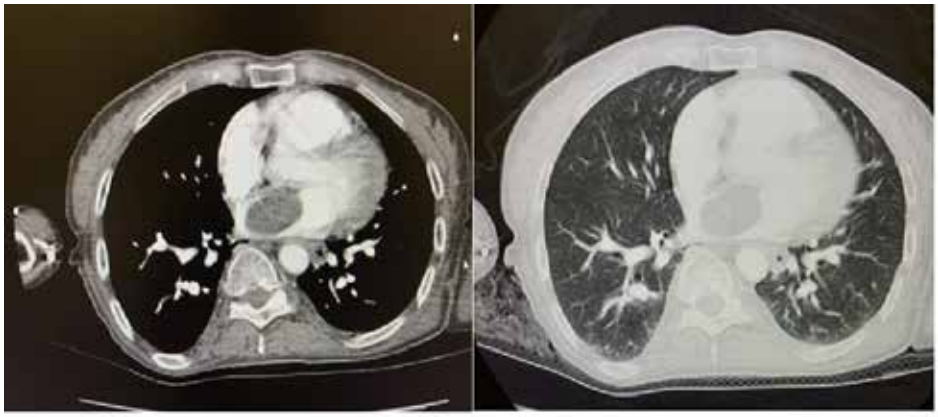


Fig.2. In the CT angio, a thrombus of approximately 41 x 26 mm with hypodense appearance

Discussion

SARS-CoV-2 infection is known to induce a prothrombotic state, particularly manifested by microthrombosis, as observed in post-mortem specimens from individuals with COVID-19 (2). This thrombotic state resembles a process known as immunothrombosis, in which the immune and coagulation systems cooperate to block pathogens and limit their spread. In this Perspective, she explains how SARS-CoV-2 can induce a prothrombotic state. An important pathophysiological feature of COVID-19 is the development of a prothrombotic state. High fibrinogen, von Willebrand factor (VWF) and fibrin degradation product D-dimer in the blood cause a coagulopathy specific to COVID-19. This suggests that a severe inflammatory process causes a hypercoagulation process rather than classical disseminated intravascular coagulation (DIC)(2).

An important pathophysiological feature of COVID-19 is the development of a prothrombotic state. These features are associated with an increased coagulation state combined with a severe inflammatory state rather than (DIC). Therefore, antithrombin activity is likely to change as SARS-CoV-2 infection worsens, and a putative mechanism may be a cytokine-induced imbalance in endogenous anticoagulant levels (2).

coagulopathy associated with COVID-19; platelet count <150 × 109, D-dimer levels more than twice the upper limit of normal, prothrombin time >1 sec or INR >1.2, and at least two of the criteria for micro/macro thrombosis (3). Tedeschi et al. reported that a patient who was hospitalized with the diagnosis of COVID 19 and had no previous cardiovascular risk factors had ST elevation myocardial infarction on the 9th day of hospitalization and thrombus in the coronary arteries in angiography (4). Pow et al. reported that a 40-year-old patient who had a second attack of SARS-CoV-2 infection had cardiopulmonary arrest due to submassive pulmonary embolism (5).

Fatih et al. also showed multiple microscopic areas of myocardial ischemia with left atrium and pulmonary vessel thrombus in the autopsy of a middle-aged COVID 19 case. In this case, they additionally demonstrated diffuse microscopic cardiomyocyte necrosis with pathological diagnosis of small vessel micro-thrombotic occlusions, possibly due to coagulopathy due to inflammation (6).

Our patient had previously been hospitalized for about 10 days due to COVID 19, and lung involvement was moderate. The patient, who developed sudden palpitations and shortness of breath approximately 2 months after he was discharged from the hospital, was brought to our hospital as an arrestMega thrombus was detected in the left atrium in the CT angio. Therefore, our case is a good example suggesting that COVID 19 is associated with cardiovascular thrombosis and acute coronary syndrome (ACS). It can be said that ACS, including sudden cardiac death, has an important place among the causes of death in our case after COVID discharge. It is beneficial for physicians to plan the treatment of patients after discharge.

Conclusion

SARS-CoV-2 infection can cause myocardial damage, which is closely related to the disease process, diagnosis, prognosis and treatment. Therefore, the history of SARS-CoV-2 infection should be questioned in patients presenting to the emergency department with ACS or new-onset rhythm disorder. Comprehensive studies are needed to evaluate the prognosis of ACS after SARS-CoV-2 infection.

References

1.Fath AR, Aglan A, Varkoly KS, Eldaly AS, Beladi RN,Forlemu A.et al. Distinct Coagulopathy With Myocardial Injury and Pulmonary Embolism in COVID-19.Journal of Investigative Medicine High Impact Case Reports 2020; 9: 1–7 doi: 10.1177/23247096211019559.

2.Mir N, D'Amico A, Dasher J, Tolwani A, Valentine V. Understanding the andromeda strain — the role of cytokine release, coagulopathy and antithrombin III in SARS-CoV2 critical illness. Blood Rev 2021;45:100731. doi: 10.1016/j.blre.2020.100731

3. Iba T, Warkentin TE, Thachil J, Levi M,& Levy JH. Proposal of the definition for COVID-19-associated coagulopathy. J. Clin. Med. 2021;10;191. doi: 10.3390/jcm10020191

4. Tedeschi D, Rizzi A, Biscaglia S, Tumscitz C. Acute myocardial infarction and large coronary thrombosis in a patient with COVID-19Catheter Cardiovasc Interv. 2021(1);97(2):272-277. doi: 10.1002/ccd.29179.

5.Pow T, Allen S, Brailovsky Y, Darki A. Acute submassive pulmonary embolism after SARS-CoV-2 infection: a case report of reinfection or prolonged hypercoagulable state.Eur Heart J Case Rep,2021, 24;5(3):ytab103. doi: 10.1093/ehjcr/ytab103.

6. Sandoval Y, Januzzi JL Jr, Jaffe AS. Cardiac troponin for assessment of myocardial injury in COVID-19: JACC review topic of the week. J Am Coll Cardiol. 2020;76:1244-1258

COVID-19 Related Encephalıtıs In A Pregnant Woman

Gamze Çopuroğlu[1], Gül Şahika Gökdemir[2], Mehmet Tahir Gökdemir[3]

[1]Mardin Training and Research Hospital, Emergency Department, Mardin

[2]Diyarbakir Children's Hospital, Physiology, Diyarbakir

[3]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin

The main clinical manifestations of COVID 19 are fever, chills, dry cough and difficulty breathing. Autopsy studies have shown that in most cases of SARS, signs of cerebral edema and meningeal vasodilation can be detected. The prevalence of acute cerebrovascular diseases in hospitalized COVID-19 patients reaches almost 6% (5). Most of these cases are reported to be arterial stroke. One possible explanation for the occurrence of coagulation disorders in COVID-19 patients is increased thrombus formation under conditions of hypoxia. In this case report, we present a young pregnant patient who was brought to the emergency room with headache and occasional hallucination-like complaints and subsequently developed encephalitis and cerebral hemorrhage due to COVID 19.

Keywords: COVID-19, SARS-CoV, encephalitis, Pregnancy

Introduction

COVID-19 symptoms appear about 5 days after incubation. This period is closely related to the patient's immune system and age. COVID-19 is also linked to hypercoagulable disease and increases the risk of venous thrombosis. There are also records of neurological symptoms (such as fatigue, dizziness, and impaired consciousness), ischemic and hemorrhagic strokes, and muscle damage (1). Neurological symptoms and signs, including central nervous system (CNS), peripheral nervous system (PNS), and musculoskeletal system, can be seen in SARS-COV 2 infection (2). We present a young pregnant patient who was brought to the emergency department (ED) with headache and occasional hallucination-like complaints and subsequently developed encephalitis and cerebral hemorrhage due to COVID 19.

Case

A 27-year-old pregnant patient was brought to the ED with complaints of headache and hallucinations.A week ago, she applied to the ED with complaints of headache, cough and fever. The patient's COVID 19 test was negative and the thorax CT was normal. The patient's TA was 115/75, NDS:88, fever was measured as 38°C, and she was discharged. One week later, the patient was admitted to the ED again due to epileptic attack and widespread muscle weakness. At the second admission, high fever and altered consciousness were present. On Thorax CT of the patient who had a positive COVID test, there were patchy ground glass density increases in the lower lobes of both lungs and in the posterior segment of the right lung upper lobe, an appearance compatible with viral pneumonia (Figure 1). In the brain MRI, there was a widespread multiple lesion area at the bilateral temporal lobe level, periventricular, coronaradiata and centrumsemiovale levels, containing the appearance of hypointense bleeding areas within the lesions located in the white matter and causing involvement in the corpus callosum (Figure 2). On the diffusion MRI of the patient, there were infarct areas secondary to perfusion disorder, sometimes close to the bleeding areas. After the preliminary preparation and the first treatment, the patient was delivered by cesarean section. Antiviral, antibiotherapy and anti epileptic therapy were started and the patient was taken to the physical therapy program and was discharged with moderate extremity sequelae.

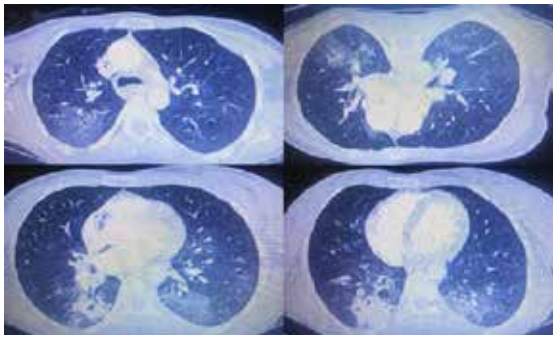


Fig.1.Patchy ground glass density in the lower lobes of both lungs on Thorax CT

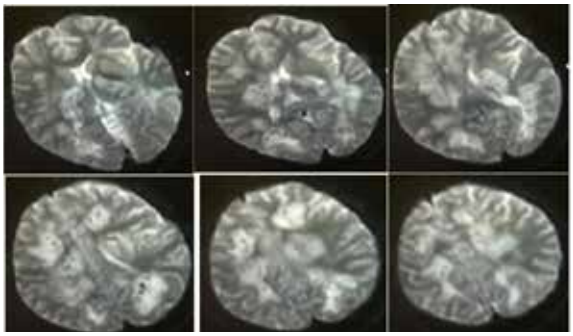


Fig.2. Infarct areas seen on the Cranial MRI

Discusion

Many viral infections can cause severe damage to the structure and function of the nervous system, including severe encephalitis due to viral infections in the central nervous system (SNS), toxic encephalopathy caused by severe systemic viral infections, and severe acute demyelinating lesions that develop after viral infections (3). The incidence of acute ischemic stroke among COVID-19 patients is estimated to be approximately 3% (4). The prevalence of acute cerebrovascular diseases in hospitalized COVID-19 patients reaches almost 6% (5). Most of these cases are reported to be arterial stroke. One possible explanation for the occurrence of coagulation disorders in COVID-19 patients is increased thrombus formation under conditions of hypoxia. The pathophysiological characteristic of SARS-CoV-2 associated encephalitis is not fully understood. Harapan et al. reported that 19.3% of Covid 19 cases had Cerebral venous thrombosis (2). Despite thromboprophylaxis, there appears to be a high cumulative incidence of thrombotic complications in critically ill COVID-19 patients, especially those with pneumonia (6). On the other hand, various findings suggest that ischemic cerebrovascular disease may develop simultaneously during COVID-19, independent of a critical illness process (7). Our case was female and pregnant, and her blood pressure was within normal limits and her urinalysis was normal. Eclampsia or preeclampsia was ruled out in the case and it was evaluated as compatible with encephalitis in MRI.

Conclusions

SARS-CoV can induce polyneuropathy, encephalitis and aortic ischemic stroke. Our case shows that covid 19 disease may have a clinical presentation with a complication such as stroke. We think that this case report will contribute to the literature.

References

1.Characteristics of SARS-CoV-2 and COVID-19. Hu B, Guo H, Zhou P, Shi ZL.Nat Rev Microbiol. 2021;19(3):141-154.

2. Harapan BN,Yoo HJ.Neurological symptoms, manifestations, and complications associated with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease 19 (COVID-19).Journal of Neurology ,2021;268:3059–3071

3.Wu Y, Xu X, Chen Z, Duan J, Hashimoto K, Yang L.Nervous system involvement after infection with COVID-19 and other coronaviruses.Brain, Behavior, and immunity (2020), doi: https://doi.org/10.1016/j.bbi.2020.03.031

4. Favas TT, Dev P, Chaurasia RN, Chakravarty K, Mishra R, Joshi D, et al. Neurological manifestations of CO-

VID-19: a systematic review and meta-analysis of proportions. Neurol Sci 2020;41(12):3437–3470.

5. Mao L, Jin H, Wang M, Hu Y, Chen S, He Q, () Neurologic manifestations of hospitalized patients with coronavirus disease 2019 in Wuhan, China. JAMA Neurol 2020, 1;77(6):683-690.

6. Klok FA, Kruip M, van der Meer NJM, Arbous MS, Gommers D, Kant KM, Kaptein FHJ, Confirmation of the high cumulative incidence of thrombotic complications in critically ill ICU patients with COVID-19: an updated analysis. Thromb Res 2020;191:148–150

7. Tunc A, Unlubas Y, Alemdar M, Akyuz E (2020) Coexistence of COVID-19 and acute ischemic stroke report of four cases. J Clin Neurosci. https ://doi.org/10.1016/j.jocn.2020.05.018

Can High-Sensitive Troponin T Be Used in the Diagnosis of Pulmonary Embolism? Retrospective Analysis

Sultan Özselçuk [1], Semih Korkut [1], Cansın Kumsal Dikmeçli [1], Kaan **Çağrı** Gürel [1], Ramazan Güven [1]

[1] Basaksehir Cam and Sakura City Hospital, Emergency Department

ABSTRACT

INTRODUCTION: It is very important to find cardiac and noncardiac causes in patients followed in the emergency department for chest pain, shortness of breath, palpitation, syncope and cardiopulmonary arrest. One of the noncardiac causes is pulmonary embolism. In this situation, which is very important to diagnose, troponin values increase as in cardiac causes . We aim to retrospectively understand whether there is a correlation between troponin levels and embolism degrees in blood samples taken from patients with embolism .

METHOD: The retrospective study included patients over the age of 18 with troponin level who underwent Computed Tomography Angiography (CTA) in the red area of the training and research hospital between June 2022 and July 2022.

RESULTS: 274 patients were included in our study and 45.3% of them were male. The most common presenting symptom of 274 patients was dyspnea (46%). While 71.5% of the CT scans taken for diagnostic purposes were interpreted as normal, the rest had positive embolism findings. Chest pain was lower in patients with high troponin levels (p=0.002). CT findings were higher in patients with low troponin values (p=0.034). It was found that chest pain was observed more frequently in patients who were discharged (p=0.029). CT findings of the discharged patients were normal (p<0.001); Bilateral, lobar and segmental incidences were found to be lower than the rate of patients who were not discharged (p=0.022; p=0.003; p=0.037; p<0.05, respectively).

CONCLUSION: There was no significant relationship between troponin level and embolism in patients admitted to the emergency department with suspected pulmonary embolism. Although there was a significant relationship between age and increase in troponin, no significant relationship was found between the diagnosis of embolism and hospitalization.

KEYWORDS: embolism, d-dimer, troponin, CT angiography

INTRODUCTION

It is very important to find cardiac and noncardiac causes in patients followed in the emergency department for chest pain, shortness of breath, palpitation, syncope and cardiopulmonary arrest. One of the noncardiac causes is pulmonary embolism. Pulmonary embolism is divided into submassive and massive emboli. In this situation, which is very important to diagnose, troponin values increase as in cardiac causes . We aim to understand whether there is a correlation between troponin levels and embolism degrees in blood samples taken from patients with embolism.

This is a study that retrospectively examines the significant increase in troponin level with a single-center retrospective data analysis in the preliminary study conducted in these patient groups. If there is a positive correlation between the troponin values of patients diagnosed with pulmonary embolism and the degree of embolism, it can be ensured that patients can guide their hospitalization/follow-up and treatment. In the absence of a correlation between troponin levels, which are frequently checked in emergency services, and non-cardiac pulmonary embolism, more attention may be required to determine whether there are additional mortal pathologies. Our study can be a guide for future studies on this subject.

METHODS

Retrospective study Patients who were older than 18 years old and had troponin level who underwent Computed Tomography Angiography (CTA) in the red area of the training and research hospital between June 2022 and July 2022 were included in the study.

Statistical Evaluation

SPSS (Statistical Package for the Social Sciences) 25.0 package program was used for statistical analysis of the data. Categorical measurements were summarized as numbers and percentages, and continuous measurements as mean and standard deviation (median and minimum-maximum where appropriate). Chi-square and Fisher exact acuity diagnostic tests were used to compare categorical parameters. Shapiro-Wilk test was used to determine whether the parameters in the study showed normal distribution. Mann Whitney U test was used for the parameters that did not show normal distribution. ROC Curve analysis was used to set the threshold for the 1st Troponin value of the patients. Statistical significance level was taken as 0.05 in all tests.

RESULTS

274 patients were included in our study and 45.3% of them were male. The most common presenting symptom of 274 patients was dyspnea (46%). While 71.5% of the CT scans taken for diagnostic purposes were interpreted as normal, the rest had positive embolism findings. (Table 1)

Table 1.

	Number (n)	Percentage (%)
Gender		
Man	124	45.3
Woman	150	54.7
symptoms		
chest pain	78	28.5
dyspnea	126	46.0
hemoptysis	21	7.7
Syncope	44	16.1
Arrest	one	0.4
CT finding		
Normal	196	71.5
bilateral	6	2.2
lobster	10	3.6
segmental	5	1.8
subsegmental	5	1.8
outcome		
Discharge	126	46.0
Admission/Stamp emb	34	12.4
Admission/Other	111	40.5
exitus	3	1.1
	Mean±Sd	**Med (Min-Max)**
Age	61.6±19.8	64 (18-103)
systolic	124.3±25.6	120 (75-233)
Diastolic	76.4±15.1	75.5 (34-126)

Pulse	92.9±21.3	90 (55-200)
respiratory rate	20.8±2.4	20 (16-37)
SPO2	94.2±6.6	97 (60-100)
1. Troponin	45.3±69.7	24 (3-735)
2. Troponin	58.8±95.2	32 (0.9-900)
D-Dimer	2.8±3.2	1.66 (0.2-18)

It was found that chest pain was observed more frequently in patients who were discharged (p=0.029). CT findings of the discharged patients were normal (p<0.001); Bilateral, lobar and segmental incidences were found to be lower than the rate of patients who were not discharged (p=0.022; p=0.003; p=0.037; p<0.05, respectively). (Table 2)

The mean age of the patients was found to be lower in those who were discharged (p=0.004). (Table 2)

It was observed that the mean heart rate, 1st Troponin, 2nd Troponin, and D-Dimer were lower in discharged patients than in non-discharged patients (p<0.001; p<0.001; p<0.001; p=0.026, respectively). (Table 2)

SPO_2 value was higher in discharged patients (p<0.001). (Table 2)

No significant difference was found between the other parameters in Table 2 and the groups (p>0.05).

Table 2.

	Not Discharged (n=148) ⁺	**Discharge (n=126)**	**p [a]**
	n(%)	**n(%)**	
Gender			
Man	70 (47.3)	54 (42.9)	0.462
Woman	78 (52.7)	72 (571)	
symptoms			
chest pain	34 (23.0)	44 (34.9)	**0.029***
dyspnea	74 (50)	52 (41.3)	0.148
hemoptysis	13 (8.8)	8 (6.3)	0.450
Syncope	21 (14.2)	23 (18.3)	0.361
Arrest	1 (0.7)	-	0.355
CT finding			
Normal	91 (61.5)	105 (83.3)	**<0.001****
bilateral	6 (4.1)	-	**0.022***
lobular	10 (6.8)	-	**0.003****
segmental	5 (3,4)	-	**0.037***
subsegmental	4 (2.7)	1 (0.8)	0.239
	Not Discharged (n=148) ⁺	**Discharge (n=126)**	**p [b]**
	Mean±Sd	**Mean±Sd**	
Age	64.6±19.8	58.0±19.2	**0.004****
systolic	124.9±26.9	123.5±24.1	0.931
Diastolic	77.4±16.3	75.2±13.7	0.325
Pulse	96.8±20.5	88.5±21.3	**<0.001****
respiratory rate	21.1±2.8	20.5±1.8	0.066
SPO2	92.6±7.7	95.9±4.3	**<0.001****

1. Troponin	58.5±86.3	27.8±30.2	**<0.001****
2. Troponin	78.0±117.9	34.8±45.5	**<0.001****
D-Dimer	3.37±3.7	1.88±1.6	**0.026***

+: Non-discharged group: 34 patients with Admission/Pul emb, 111 patients with Admission/Other, 3 patients with exitus were included, a: Chi-square and Fisher exact test, b: Mann Whitney U test

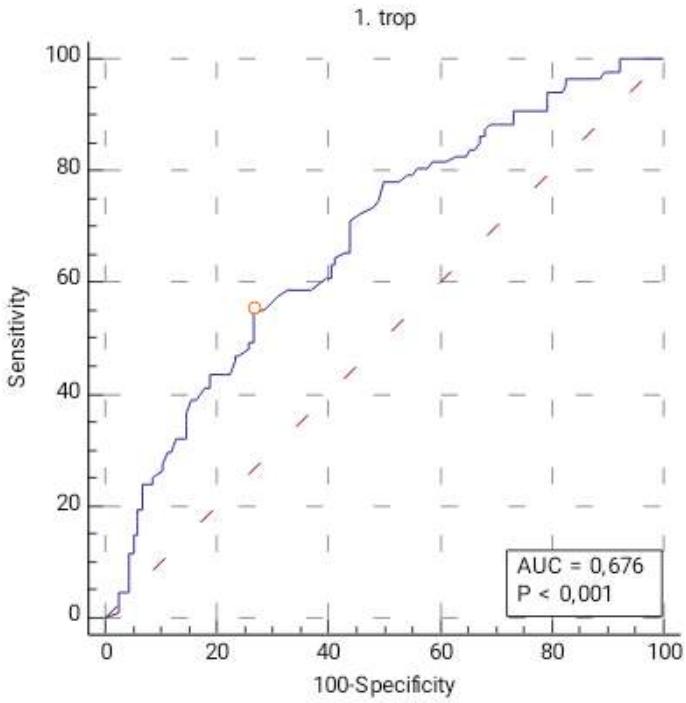


Figure 1. Examination of the 1. Troponin value by Roc curve test according to the discharge status of the patients

Discharge status of the patients in the study 1. Diagnostic test performance of troponin value is shown in Table 3. As a result of the analysis, the 1st troponin value of the patients showed 55.17% sensitivity and 73.28% specificity at the cut-off value of 19 and below, the area under the curve was 0.676, which was statistically significant (p<0.001). (Table 3)

Table 3. Diagnostic value of 1. Troponin value according to discharge status

	1. Troponin
AUC 95%-CI (%)	0.676 (0.607-0.739)
cut-off	≤19.5
Sensitive (%)95%-CI (%)	55.17 (44.1-65.9)
Specific 95%-CI (%)	73.28 (64.3-81.1)
PPV 95%-CI (%)	60.8 (52-68.9)
NPV 95%-CI (%)	68.5 (62.7-73.8)
p	**<0.001****

** p<0.05, **p<0.001, Roc curve test*

Patients were divided into two groups according to the 1st troponin cut-off point. Those with 1st Troponin value of 19.5 and below were evaluated in the Low group, and those with 1st Troponin value above 19.5 were evaluated in the High group. (Table 4)

The proportion of males with high troponin value was higher (p=0.039).

Chest pain was lower in patients with high troponin levels (p=0.002).

CT findings were higher in patients with low troponin values (p=0.034).

While the discharge rate was low in patients with high troponin levels (p<0.001); The hospitalization/other ratio was found to be higher (p=0.012).

The mean age of patients with high troponin value was higher (p<0.001).

While the pulse and D-Dimer values of the patients were higher in the group with high Troponin value (p<0.001; p=0.001, respectively); SPO_2 value was found to be lower (p=0.003).

No significant difference was found between the other parameters in Table 4 and the groups (p>0.05). (Table 4)

Table 4.

	Low Troponin Value (n=79)	High Troponin Value (n=14)	p [a]
	n(%)	n(%)	
Gender			
Boy	42 (53.2)	49 (39.5)	**0.039***
Woman	37 (46.8)	75 (60.5)	
symptoms			
chest pain	32 (40.5)	25 (20.2)	**0.002****
dyspnea	36 (45.6)	62 (50)	0.538
hemoptysis	5 (6.3)	5 (4.0)	0.461
Syncope	12 (15.2)	23 (18.5)	0.537
Arrest	-	1 (0.8)	0.424
CT finding			
Normal	62 (78.5)	80 (64.5)	**0.034***
bilateral	-	5 (4.0)	0.071
lobster	2 (2.5)	4 (3.2)	0.776
segmental	2 (2.6)	2 (1.6)	0.637
subsegmental	2 (2.5)	2 (1.6)	0.646
outcome			
Discharge	48 (60.8)	39 (31.5)	**<0.001****
Admission/Stamp emb	7 (8.9)	18 (14.5)	0.232
Admission/Other	26 (32.9)	63 (50.8)	**0.012***
exitus	-	3 (2,4)	0.164
	Low (n=79)	**High (n=14)**	**p [b]**
	Mean±Sd	**Mean±Sd**	
Age	56.1±19.2	70.3±16.5	**<0.001****
systolic	124.5±24.8	126.4±28.3	0.882
Diastolic	76.5±16.8	77.9±15.8	0.281

Pulse	88.4±20.7	99.2±22.2	**<0.001****
respiratory rate	20.4±1.8	21.2±3.0	0.188
SPO2	95.3±5.2	92.5±7.8	**0.003****
D-Dimer	1.86±1.7	3.71±3.8	**0.001****

+: Non-discharged group: 34 patients with Admission/Pul emb, 111 patients with Admission/Other, 3 patients with exitus were included, a: Chi-square and Fisher exact test, b: Mann Whitney U test

DISCUSSION

In many studies, the relationship of high troponin value with prognosis has been investigated and it has been revealed that the prognosis is poor with high troponin. In another study, it was observed that there was no significant increase in the troponin value and the massive-submassive emboli. Therefore, troponin level does not have a significant effect in determining the severity of embolism in the CT finding. In another study, no significant relationship was found between D-dimer positivity and embolism, and it was suggested that its negativity was significant in exclusion.[3] In our study, the spO2 values of patients with high D-dimer, troponin and pulse were found to be low.

There was no significant relationship between troponin level and embolism in patients admitted to the emergency department with suspected pulmonary embolism. Although there was a significant relationship between age and increase in troponin, no significant relationship was found between the diagnosis of embolism and hospitalization.

REFERENCES:

1. Widespread Parenchymal Abnormalities and Pulmonary Embolism on Contrast-Enhanced CT Predict Disease Severity and Mortality in Hospitalized COVID-19 Patients, Francesca Cmpoccia, Mats O. Beckman, Ann Mair Svensson et all. front. Med., 29 June 2021 https://doi.org/10.3389/fmed.2021.666723
2. Prognostic value of right ventricular dysfunction or elevated cardiac biomarkers in patients with low-risk pulmonary embolism: a systematic review and meta-analysis Stefano Barco, Seyed Hamidreza Mahmoudpour, Benjamin Planquette, et all., European Hearth Journal(2019)40;902- 910.
3. The Prognostic Value of the Serum Levels of Brain Natriuretic Peptide, Troponin I, and D-Dimer, in Addition to the Neutrophil-to-Lymphocyte Ratio, for the Disease Evaluation of Patients with Acute Pulmonary Embolism, Wenmiao Bi, Shaoqing Liang, Zhihong He , et all., International Journal of General Medicine, 2021:14 303–308

Kus Kus Nereye Kadar? HİPEREMEZİS GRAVİDARUM

Dr. Öğr. Üyesi Serkan BİLGİN
İzmir Katip Çelebi Üniversitesi Acil Tıp ABD

Tanım

Klasik olarak gebeliğin 4–8 haftalarında başlar ve 16-18 haftaya kadar devam eder. Günde 3'den fazla kontrol edilemeyen kusma, vücut ağırlığının %5"inden fazla kilo kaybı, ketonemi, elektrolit imbalansı (hiponatremi, hipokalemi) volume kaybı ile seyreden durumlarda hastaneye yatış gerektirmektedir.

Epidemiyoloji ve Risk Faktörleri

Gelişmiş ülkelerde ve kentsel bölgelerde Afrika ve Asya'dan daha sık görülmekte ve genç primigravid kadınlar yaşlı multipar hastalardan daha çok etkilenmektedirler.

Risk Faktörleri

Hiperemezis öyküsü hastalığa yakalanma sıklığını 29 kat daha arttırmaktadır. Bunula birlikte molar gebelik veya öyküsü, diyabetes mellitus, depresyon veya psikiyatrik hastalıklar, hipertiroidi, peptik ülser ve diğer GİS hastalıkları, asthma diğer faktörler arasında belirtilmektedir. Ayrıca dişi fetüs varlığında risk %53 -66 bulunmaktadır.

Etiyoloji

- Yüksek hCG
    - Üst GİS sekretuar aktivitede artış ?
    - TSH reseptör uyarısı ?
- Maternal serum steroid hormon düzeyinde artış.
    - Bağırsak motilitesinde azalma
    - Mide boşalma süresinde gecikme
    - GİS Ph değişikliği
    - Subklinik Helicobakter Pylori enfeksiyonu
- Hiperemesis % 95 H.Pylori (kontrol %50)
- Tiroid hormonları
    - Erken gebelikte geçici triotoksikoz (Olguların 2/3)
- Psikolojik faktörler

Semptom ve Bulgular

Bulantı, kusma, tükürme, kokulara karşı duyarlılık yemek ve/veya sıvı intoleransı, letarji
Dehidratasyon, kilo kaybı, ketonüri , anemi, taşikardi

TEDAVİ

Destekleyicidir ve kendi kendini sınırlar.
Amaç; bulantı-kusma, dehidratasyon ve elektrolit bozukluklarını doğru tespit etmek ve komplikasyonları önlemektir. Ayaktan ve yatırılarak uygulanabilir.

POSTER BİLDİRİLER

P-014

A MORTAL CAUSE OF SYNCOPE IN PREGNANCY: INCOMPLETE ABORTION

Serkan Kaygusuz[1], İbrahim Altundağ[2], Alperen Şahin[1], Burcu Genç Yavuz[1], Burak Özçelik[1], Şahin Çolak[1], Kaan Yusufoğlu[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Pregnancy is an important clinical process that completely changes the maternal physiology with its physiological changes and causes serious mortality and morbidity with its complications. Placenta previa, ablatio placenta and abortions are among the causes of vaginal bleeding during pregnancy.Obstetric hemorrhagic pathologies may present with symptoms such as sudden onset of dizziness, weakness, syncope and hypotension, as well as abdominal pain and vaginal bleeding. In this article, we present the pregnant woman presenting with syncope and in the light of this case, we aim to draw attention to the preliminary findings that vaginal bleeding may reveal.

Case: A 35-year-old female patient at the 11th week of pregnancy without known disease or drug use history was brought to the emergency department with syncope.Syncope developed after nausea-vomiting and abdominal pain that started suddenly one hour ago.G4P3A0.GCS:15, medical state was bad.Blood pressure:88/57mmHg, heart rate:110/min, fever:37.1oC and SpO2:97% were detected.There was diffuse tenderness but no defense or rebound in abdominen.In laboratory results WBC:13.300/uL, Hb:11.5gr/dl, ALT:6U/L, AST:11U/L, creatinine:0.35mg/dl, CRP:14mg/L, lactate:0.6mmol/L and base deficit:6.4 were detected. Rectal examination was normal, blood was detected with vaginal examination.The patient was consulted to the obstetrics-gynecology with the preliminary diagnoses of incomplete abortion,placenta previa,ablation placenta.In the follow-ups, hypotension and tachycardia persisted despite hydration.The clinical status was accepted as shock due to incomplete abortion.Manual curettage was applied in the emergency room.During the follow-ups, pH:7.36, HCO3:16mEq/L, lactate:3.6mmol/L and base deficit:-8.0 were found.The next day, the bleeding was brought under control and repeated Hb was 7.1 g/dl.After 3 unit Erythrocyte suspension(ES) replacement, the patient was discharged with full recovery on the fifth day.

Conclusions: Although the typical initial clinic consists of vaginal bleeding and abdominal pain; in rapidly developing and severe cases, hypovolemia and hypoperfusion findings can be seen in the foreground.Detailed cardiovascular system and gastrointestinal system (primarily rectal examination) examinations are routinely performed in patients presenting to the emergency department with hypovolemia, hypoperfusion-related symptoms and shock findings.Moreover, in the female patients including pregnant women, the presence of vaginal bleeding should be questioned even if there is no symptom and obstetrics and gynecology consultation should be requested for obstetric-gynecological examination.

Keywords: abortion, incomplete abortion, syncope, pregnancy, hemorrhagic shock

P-134

Evaluation of burn patients admitted to the emergency department in a 5-year period

Zerrin Defne Dündar[1], İsmail Buğra Bilen[1], Samet Geçer[1], Kadir Küçükceran[1], Mustafa Kürşat Ayrancı[1], Abdullah Sadık Girişgin[1], Sedat Koçak[1]

[1]Necmettin Erbakan University Meram Faculty of Medicine Emergency Medicine Department

Background and aim: One of the most important units where burn cases receive medical care is emergency department (ED). The aim of this study was to investigate the differences in epidemiological and clinical features of the adult and pediatric patients with burn.

Methods: All patients who presented to the ED with burn between 01 November 2016 and 31 October 2021 were included in this retrospective observational study. Electronic and written files of the patients were reviewed. Patients' age, gender, time of admission, burn type/percentage, burn degree, interventions, consultations requested, ED outcome, and length of hospital stay were recorded. The patients were divided into two groups, adult and pediatric. Parameters were compared between those age groups.

Results: A total of 539 patients were included in the study. 289 (53.6%) of the patients were male and the mean age of them was 22.6±19.1 years. 15.3% of the patients were hospitalized in the ward. The hospital stay was between 1-5 days in 70 (76.1%) of 92 hospitalized patients. Of the patients, 254 (47.1%) were pediatric and 285 (52.9%) were adult. The number of males was higher than the number of females in both age groups (p=0.888). There was no significant seasonal difference between age groups (p=0.285). While the rate of admission between 16:01 and 00:00 was 63.8% in the pediatric group, this rate was 51.6% in the adult group, and the difference was statistically significant (p=0.006). While the leading burn mechanisms were hot liquid (78%) and contact with a hot surface (12.2%) in the pediatric group, those were hot liquid (57.5%) and flame (10.9%) in the adult group (p<0.001). The rate of second degree burns in the pediatric group was significantly higher than the adults (p<0.001). The percentages of patients who received tetanus vaccine and were given antibiotics were significantly higher in the pediatric group (p<0.001 and p=0.011). The rate of hospitalization was significantly higher in the pediatric group (p=0.001).

Conclusions: Our study shows that hot liquid burns are more common in patients admitted to our emergency department, that the number of serious cases requiring hospitalization is relatively low, and that more hospital resources are needed in pediatric patients.

Keywords: burn, emergency, pediatric, adult

P-008

A CASE REPORT: LEUKOCYTOCLASTİC VASCULİTİS

Ceren Çolak[1], Gözde Yılmaz Makinecioğlu[1], Elif Günhan[1], Raziye Rabia Özdemir[1], Özgür tan Aladağ[1], Abdullah Hamza Pekmezci[1], Mehtap Bulut[1], Suna Eraybar atmaca[1]

[1]Bursa Şehir Hastanesi

Background and aim: Leukocytoclastic vasculitis (LCV) is an enflamatuar disorder that is characterized by usually occurring skin and joint findings. The estimated incidence of leukocytoclastic vasculitis of any etiology is between 15 and 30 people per million per year. Possible etiological causes consist of drugs, infections, malignancies, and various other causes such as systemic enflamatuar diseases. However, in some cases, the definite cause cannot be found and these cases can be evaluated as idiopathic cases. In clinical inspection, the most characteristic finding is palpable purpura that is located in the lower extremities as regards the upper extremities.

Case: 49 year old female patient came emergency department (ED) with lesions that show a sudden onset at night, located in both anterior and posterior truncal regions, and all four extremities her body except her face with a maculopapular pattern, these lesions didn't disappear with pressing. Physical examination; she had no uvula edema, no abnormality in lung auscultation. There was maculopapular rash in trunc and four extremities that wasn't disappear with pressing and do not cause itchiness. Peripheral pulse was intact.No findings related to GI bleeding.Vital signs: HR:89 beat/min, Blood pressure:130/80mmHg, Respiratory Rate:12, Fever 36.5oC Laboratory findings: Coagulation tests were in normal limits. Glucose level was 109 mg/dl. The urinalysis was associated with infectionThe patient has been internalized in internal medicine clinic. Rheumatologic tests like Ana/anti SSA/ anti SSB /C Anca/ p Anca/ anti ds DNA are within normal limits. A biopsy has been taken from the lesions due to this biopsy a diagnosis has been made as leukocytoclastic vasculitis, Next 8 days a treatment regime of prednole 80m daily has been initiated. After complete remission of rash, the patient was discharged from the hospital with a daily 64 mg prednole treatment.

Conclusions: The main purpose of this case presentation is leukocytoclastic vasculitis. Classical skin lesions presentation to the ED physicians and help properly diagnose and recognize disease in emergency settings.

Keywords: dermatology, leukocytoclastic, vasculitis

P-150

Zeina AKÇADAĞ[1], Asım KALKAN[1]

[1]Prof. Dr. Cemil Taşçıoğlu Şehir Hastanesi Acil Tıp

Background and aim: Electrical injuries are a complex form of trauma that is often associated with high morbidity and mortality. The severity of the injuries depends upon the type of current, the voltage, and the resistance. Electrical injuries can be separated based on low-voltage or high-voltage injuries, The risk for serious and fatal electrical injury increases with voltage especially > 600 V. High voltage is usually defined as >1000V.Electrical induced injuries can occur via several mechanisms1. Direct tissue damage from the electrical energy 2. Tissue damage from thermal energy 3. Mechanical injury from trauma induced by a fall or muscle contraction

Case: A 41-year-old man without any systemic disease or drug history presents to a Emergency Department after he suffered an electrical shock on his right hand. He gave a history of touching some live wires with his right hand from a contact with a 220 V of alternating current in his workplace. He was in contact with the wiring for no longer than 5–10 s. He had no chest pain and remained conscious but experienced weakness and pain in his shoulders. There weren't any entry wounds. Radiographs revealed a bilateral scapular fracture there were no associated fractures of the shoulderComputerised tomography was performed to assess the extent of the fracture He was discharged with a 8 bandage and physiotherapy exercises

Conclusions: Scapular fracture as a result of electrical injury is uncommon but should be suspected in a patient with shoulder pain without a posterior dislocation. The vast majority of patients can be treated with a sling and physiotherapy, with a very good prognosis and little need for long-term follow-up.

Notes (Optional): DiscussionScapular fractures are uncommon injuries and usually associated with direct high-energy trauma. Fractures from electrical shocks usually occur when the victim falls after the accident. Scapula fractures as a direct result of electrical shock are very rare and the reported cases most of them are associated with a low frequency current.The most common injury after electrocution is posterior fracture/dislocation of the shoulder

Keywords: elektrik, çarpması, skapula, kırık

P-111

Brachial Artery Injury Accompanying Supracondillary Humerus Fracture

Abdullah ŞEN[1], Tuğçe BAYRAK[1], Abdullah YILDIZ[1], Ercan GÜNDÜZ[1], Mahmut YAMAN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Supracondylar humerus fractures, which are common in childhood, constitute 17.4% of all childhood fractures. Vascular injuries accompany 2.8-10% of these fractures.We wanted to present one of these rare cases.

Case: A four-year-old male patient was brought to the emergency room by his family due to pain, swelling and limitation of movement in the left elbow after falling from his own level.In the examination of the patient, there was tenderness, edema, limitation of movement, ecchymosis and angulation in the left elbow. Peripheral pulses of the left arm were not palpable. X-ray radiograph revealed a supracondyle fracture in the distal left humerus.The patient's left arm peripheral pulses could not be palpated, and upper extremity CT angiography showed a filling defect in the brachial artery. The patient was immediately taken to emergency surgery after receiving cardiovascular surgery and orthopedic consultation.

Conclusions: Simple child traumas, which are frequently encountered in the emergency department, can cause serious complications. If it is not diagnosed and treated urgently, it can lead to extremity loss.Although it is not very common, we wanted to present it as a case to increase awareness of hyperacute emergency vascular injury that should not be missed in supracondylar fractures. In the presence of strong suspicion (weak or absent pulse, cold-paleness in the extremities), the patient should be immediately evaluated for vascular pathologies and the necessary treatment should be performed without delay.

Keywords: Supracondylar Humerus Fracture, Brachial Artery Injury, Emergency Service

P-047

Isolated Cecal Necrosis After Percutaneous Treatment of Peripheral Artery Disease

Murat Demir[1], Kemal Şener[2]

[1]Basaksehir Cam and Sakura City Hospital, Department of General Surgery, Istanbul, Turkey
[2]Basaksehir Cam and Sakura City Hospital, Department of Emergency Medicine, Istanbul, Turkey

Background and aim: Thromboembolism is among the complications of minimally invasive endovascular procedure, but intestinal ischemia is extremely rare. We are presenting patient whom operated because of ısolated cecal necrosis admitting with abdominal pain and ileus symptoms after percutaneous transluminal angioplasty and stenting of the infrarenal aorta and common iliac arteries.

Case: A 63-year-old male patient. He has chronic obstructive pulmonary disease and hypertension. He has been complaining of leg pains that increased with walking for 4 years. The patient had stenosis in the infrarenal aorta and common iliac arteries. Due to peripheral artery disease, angioplasty and stenting were performed on the infrarenal aorta and bilateral common iliac artery by entering the right brachial artery by interventional radiology under elective conditions. The patient was discharged on the day of the procedure and complained of abdominal pain the next day. Two days later, the patient was admitted to the emergency service with abdominal pain, bloating, nausea and vomiting. On physical examination, there was severe tenderness on palpation of the abdomen. There was no rebound or defense. Laboratory test results: WBC: 13.6 x10^9/L (3.91-10.9), CRP: 345 mg/L (0-5). Other laboratory parameters were unremarkable. Abdominal X-ray was taken and air-fluid levels were observed. Abdominal CT was performed and all small bowel loops were dilated and there was minimal heterogeneity around the cecum. There was no dilatation of the colon. The appendix was intact. After nasogastric drainage, 700 cc ileal contents came. The patient was taken to emergency surgery. In the operation, an isolated necrotic area of approximately 4*5 cm in size was observed on the anterior wall of the cecum. Right hemicolectomy was performed. No postoperative complications were observed.

Conclusions: Acute mesenteric ischemia due to thromboembolism should be kept in mind in patients who develop abdominal pain after percutaneous treatment in peripheral arterial disease. Especially as in this patient, the catheter passing through the thoracic and suprarenal aorta may cause thrombus or atheroma plaque to obstruct the SMA.

Keywords: Peripheral Artery Disease, cecal necrosis, ileus

P-101

Miller Fisher Syndrome

Görkem Hatıpoğlu[1], Süleyman Atay[1], Cemil Kavalcı[1]

[1]Antalya Eğitim ve Araştırma Hastanesi

Background and aim: Miller-Fisher syndrome(MFS) was first described by Philips and Anderson in 1984. Although the disease varies, it usually manifests itself with cranial nerve involvement and distal paresthesia. The classic triad is ataxia, areflexia and ophthalmoparesis, but these three signs do not always coexist. In this case report, it is aimed to remind and increase the recognition of miller-fisher syndrome.

Case: A 42-year-old female patient presented to the emergency department complaining of dizziness, double vision, weakness and headache that started 3 days ago. The patient's fever was measured as 36.3 C, blood pressure: 180/90, pulse:97. On physical examination, bilateral outward gaze limitation is present, light reflex +/+, pupillary isochoric, deep tendon reflexes is normal, muscle strength is 5/5, non-lateral ataxia is present, neck stiffness is absent, other system examinations were seen naturally. ECG, complete blood count, serum electrolytes hepatic panel, renal panel and crp examinations, brain ct, brain ct angiography and MR diffusion examinations were requested from the patient. Brain CT and MRI diffusion examinations showed no signs of acute hemorrhagic or ischemic stroke. As a result of LP, no cells were detected in the patient's cerebrospinal fluid(CSF). No electrolyte disturbance was detected in CSF biochemistry. Albuminocytological dissociation was detected in the CSF examinations of the patient. CSF ganglioside panel was negative. The patient was admitted to the neurology service with a preliminary diagnosis of MFS and 0.4 g/kg/day IVIG was applied to the patient.

Conclusions: MFS is a rare disease. It can be confused with stroke clinically. In this report; a Miller Fisher syndrome case anti-GQ1b negative with dizziness, double vision and bilateral visual impairment and normal cranial imaging and EMG examination is presented.

Keywords: ophthalmoplegia, areflexia, miller-fisher syndrome, ataxia

P-082

ATTENTION! BRASH SYNDROME, A CASE REPORT

Burak Özçelik[1], İbrahim Altundağ[2], Burcu Genç Yavuz[1], Şahin Çolak[1], Kaan Yusufoğlu[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: The combination of bradycardia, renal failure, AV node blockade, shock and hyperkalemia is called BRASH syndrome, which is an abbreviation obtained by using the initials of the words.In BRASH syndrome, bradycardia developing due to AV node blockade worsens due to resistant hyperkalemia due to kidney failure and a vicious circle occurs.Decreased cardiac output due to bradycardia causes acute kidney injury due to decreased renal perfusion.Since the elimination of AV node blockers (such as metoprolol and amlodipine) occurs via the renal route, the decrease in glomerular filtration due to kidney damage in BRASH syndrome reduces the elimination of these drugs taken at therapeutic doses. In this article, we aim to present a case who presented to the emergency department with gastroenteritis clinic, progressed with bradycardia and was diagnosed with BRASH syndrome.

Case: A 66-year-old female patient with a known diagnosis of coronary artery disease, heart failure, hypertension and renal failure was admitted to the emergency department with diffuse edema in the body and decreased urine output.On arrival, GKS was 15, but her general condition was bad. In vital parameters blood pressure:90/40mmHg, heart rate:40/min, fever:36,5oC, SpO2:99% were detected. ECG showed sinus bradycardia 44/min.Bilateral diffuse rales in lugs, abdominal ascites and distension in abdomen were detected.Hemogram was normal.In laboratory tests Pro-BNP:3971pg/ml, troponin T:0.055ug/L, creatinine:5.92mg/dl (basal creatinine 2mg/dl), urea:273mg/dl, sodium:127mEq/L, calcium:8.75mg/dl, potassium:5.95mEq/L were detected.Due to 3 times intravenous 1mg of atropine the bradycardia did not improve.Transdermal external pacing (heart rate was set to 70/min) was applied to the patient with resistant bradycardia and adrenaline infusion was started.Hemodialysis was planned for the patient and she was transferred to the intensive care unit.

Conclusions: BRASH syndrome; although it is a common syndrome, is often assumed that it is not recognized or misdiagnosed due to its low reported frequency.Because of the multiple components of this syndrome, resuscitation efforts should generally be focused on the dominant features rather than the entire syndrome.It should be kept in mind that failure to recognize and treat BRASH syndrome in the early period may cause cardiovascular collapse and multiple organ failure, and may even result in high morbidity(1).

Keywords: BRASH syndrome, hyperkalemia, AV block, renal failure, shock

P-010

SUDDEN LEG WEAKNESS

Fulya KOÇ[1], Dilay SATILMIŞ[1], Erdem ÇEVİK[1]

[1]sultan 2. Abdülhamid Han Eğitim ve Araştırma Hastanesi

Background and aim: Acute transverse myelitis (TM) is a rare, acquired neuro-immune spinal cord disorder that can present with the rapid onset of weakness, sensory alterations, and bowel or bladder dysfunction . TM can occur as an independent entity, usually as a postinfectious complication, but TM also exists on a continuum of neuro-inflammatory disorders that includes acute disseminated encephalomyelitis, multiple sclerosis, myelin oligodendrocyte glycoprotein antibody disease (MOGAD), neuromyelitis optica spectrum disorder (NMOSD), and acute flaccid myelitis (AFM) .

Case: A 19-years-old male was admitted to the emergency department (ED) with complaints of weakness in his both legs starting last night. His vital signs included a temperature of 36.7°C, oxygen saturation of 99% on room air, a respiratory rate of 16/minute, a blood pressure of 119/68 mmHg and a pulse of 78 /minute. The exact cause of bilateral leg weakness could not be found, but ecopirin was started by stating that there might be vascular occlusion. He was taking acetyl salicylic acid, apicobal and folic acid. Physical examination revealed weakness of both legs. His bilateral lower extremity muscle strength was 4 out of 5 points. There was no sensory deficit in his bilateral lower extremities. Laboratory studies showed AST 50, 6 U/L (5-40), LDH 415 U/L (135-225) . ECG showed a regular sinus rhythm. Brain tomography, brain diffusion MRI and thoracic-lumbar MRI were taken to the patient in the ED. A hyperintense lesion was observed in the patient's thoracic MRI. The patient consulted with neurosurgeon and there wasn't emergency operation endication for this situation. The patient was hospitalized by the neurology department.Lumbar puncture, contrast-enhanced MRI and electromyographi (EMG) were performed during the patient's hospitalization in the neurology department. MRI imaging of the patient showed a hyperintense lesion in the thoracic 11 and lumbar 2 areas. Myelitis was considered in the foreground for this situation. The patient was discharged after his complaints regressed in the follow-ups.

Conclusions: The patient Spinal cord compression should also be considered in the differential diagnosis in cases with suspected myelitis.was recommended neurology and psychiatry outpatient control.

Notes (Optional): Weakness of extremites could be seen in the spinal cord compression and myelitis

Keywords: Acute transverse myelitis, spinal cord compression, weakness of extremites

P-083

POLYCYSTIC KIDNEY DISEASE

Mert ASLANTAŞ[1], Raziye Rabia ÖZDEMİR[1], Suna ERAYBAR[1], Mehtap BULUT[1]

[1]University of Health Sciences Turkey, Bursa City Hospital Emergency Department

Background and aim: Autosomal dominant polycystic kidney disease is the most common hereditary kidney disease in which diffuse cysts are observed in both kidneys.Among the symptoms, we can mention hypertension, urinary tract infection, deconcentration defect, haematuria, kidney stones, and acute or chronic flank pain.

Case: A 60-year-old male patient admitted to the emergency department complaining of abdominal pain, fever, and weakness. The vital signs of the patient's were blood pressure 140/90 mmHg, pulse 85/min, fever 36.8, O2 saturation 98%, and blood glucose 98. Gas and stool output was available. Tenderness and guarding were detected in the abdominal examination. Routine biochemical tests revealed creatinine of 11mmol/L, BUN of 50,1 gr/dL and arterial blood gas test revealed blood pH of 7,381 and lactate of 1,4. The patient was catheterized with a Foley catheter and the urine output was between 50 to 100 cc/hour. Abdominal CT imaging was performed, and as a result of the imaging, numerous cysts were observed in the liver, the size of which did not exceed 1 cm. A large number of cysts were observed in both kidneys, the largest of which was about 4 cm in size on the left, some of which had a hyperdense appearance. The patient began to be hydrated. The patient was started on crystalloid infusion in the emergency room and was admitted to the internal medicine clinic for follow-up and treatment, and was transferred to the dialysis unit.

Conclusions: Autosomal dominant polycystic kidney disease (ADPKD) is an inherited disease with a prevalence of 1:400 to 1:1,000 live births. The common endpoint in half of ADPKD patients is renal insufficiency. But also has an array of associated symptoms and complications. Many of these are potentially life-threatening and may bring a patient to the ED. It is important for the emergency physicians to be familiar with these and not to be distracted from the true

qKeywords: Polycystic kidney diseases, haematuria, flank pain, disease progression

P-141

Radyoterapi sonrası pnömotoraks

Ceren Kabasakal[1], Göknur Öztürk[1], Mehmet Nuri Bozdemir[1]

[1]SBU.Antalya EAH

Arka plan ve amaç: Giriş Pnömotoraks , torasik radyoterapide nadir komplikasyonlardan biridir. Günümüzde radyasyon tedavisi, başta meme karsinomları, bronkojenik karsinomlar ve lenfomalar olmak üzere çeşitli intratorasik ve göğüs duvarı malignitelerinin tedavisinin ayrılmaz bir parçasıdır. Hastalar radyasyon tedavisini palyatif tedavi, küratif tedavi veya kemoterapi ve cerrahi kombinasyonu veya her ikisi olarak alırlar. Akciğer, radyasyon tedavisinin farklı modalitelerinde kullanılan iyonlaştırıcı radyasyona en duyarlı dokulardan biridir. Radyasyon tedavisine ilişkin yaygın pulmoner komplikasyonlar radyasyon pnömonisinden pulmoner fibrozise kadar değişir, ancak pnömotoraks nadiren bildirilmiştir.

Vaka: 67 yaşında erkek hasta karın ağrısı bulantı nedeniyle 112 ile acil servise getirildi.Karın ağrısının geceden beri giderek arttığını ifade etti.Bulantı ve kusma olmadığını söyledi.Takipneik ve hipotansif olan hastanın fizik muayenesinde sol akciğerde solunum sesleri yoktu.yerinde PAAC grafisi istenen hastanın sol akciğerin kollabe olduğu görüldü.Hastaya iğne torokostomi ve tüp torokostomi yapıldı.Hastanın şikayetlerinin gerilediği vitallerinin düzeldiği izlendi.

Kararlar: TartışmaRadyoterapi sonrası birçok pulmoner komplikasyon oluşmaktadır. Bir çoğunun patogenezi belirlenmiş olsa da pnömotoraksın patogenezi tam olarak belirlenememiştir. Radyasyona bağlı pulmoner değişiklikler, apikal plevral ve parankimal hasar spontan pnömotoraks gelişiminden olabileceği düşünülmüştür. Radyasyon tedavisine bağlı fokal amfizem ve fibrozis, subplural büllerin oluşma ve yırtılma olasılığını artırır. Bir başka olası mekanizma, merkezi olarak yerleştirilmiş tıkayıcı tümörün radyasyon sonrası küçülmesini ve bir çek valf etkisine yol açan tıkanmanın kısmi çözülmesini içerir. Bu, hava hapsi, alveolar hiperinflasyon ve rüptür ile sonuçlanır, böylece müteakip pnömotoraksa yol açar. Chan ve arkadaşları tarafından geriye dönük bir inceleme, toplam 546 solid kanser hastasını retrospektif olarak inceledikten sonra toplam 25 pnömotoraks hastasını tanımladılar. Bu yirmi beş hastadan sekizi daha önce radyoterapi almıştı.

Notlar (Opsiyonel): Sonuç Torasik radyoterapi sonrası spontan pnömotoraks olguları bildirilmiş olsa tansiyon pnömotoraks olgusuna rastlanmamıştır.

Anahtar Kelimeler: Radyoterapi, Pnömotoraks, Akciğer Kanseri, Göğüs tüpü

P-139

A man with traumatic hyphema

Avni Seyhan Uygar[1], Erdal Yılmaz[1], Rohat Ak[1], Gürkan Akman[1], Seda Gökdoğan[1], Selin Korkmaz[1], Şeyma Sarı[1]

[1]kartal Dr Lütfi Kırdar Şehir Hastanesi

Background and aim: Introduction: Any blunt or penetrating injury of the eye may result in injury to the underlyinganterior chamber, iris, lens, and associated anterior segment structures of the eye. A traumatichyphema can present with a spectrum of severity, from microhyphema, to a layered hyphema,to a full or total hyphema. A diagnosis of a traumatic hyphema can often be missed withoutthe illumination and magnification with a slit lamp. it is typically self-limited, but in certaininstances, it can persist and lead to optic nerve injury and vision loss. Photophobia in theinjured eye, especially if occurring on the illumination of the opposite eye, strongly suggeststraumatic iritis.

Case: Case: a 40-years-old male patient was admitted to the emergency department due to trauma to the eye. In his anamnesis the paintball bullet caught his eye. There was no predisposing factor. His left palpebrae was edematous and his conjunctiva was hyperemic. The patient's left eye had 3 mm hyphema. As a result, the patient referred to an ophthalmologist for further examination.

Conclusions: Discussion: According to the literature, hyphema is seen in 11% of all eye traumas. Abouttwo-thirds of traumatic hyphemas develop after blunt trauma and are more common in malesdue to more frequent exposure to trauma. Most patients are under the age of 25 and are morecommon in children. Intraocular pressure increase in hyphema is seen in approximately 1/3 ofthe patients in different series. High intraocular pressure as a result of traumatic hyphema maydevelop acutely due to obstruction of the trabecular meshwork, or it may develop in the lateperiod due to conditions such as angle recession, peripheral anterior synechia, and trabeculardfibrosis. Therefore, a gonioscopic examination should be performed on patients. In patientswith acute intraocular pressure elevation secondary to hyphema, beta-adrenergic antagonistsand alpha-adrenergic agonists can be used in the first step in medical treatment. As a result,hyphema due to blunt trauma is associated with secondary glaucoma, optic atrophy, andamblyopia development in long-standing hyphemas and conditions that may eventually leadto severe vision loss.

Keywords: hyphema, trauma

P-091

A Rare Case After Head Trauma: Sinus Vein Thrombosis

Ercan GÜNDÜZ[1], Şilan Göger ÜLGÜT[1], Mehmet Hanifi AĞIRAĞAÇ[1], Ali Fırat ÜLGÜT[1], Mahmut YAMAN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Sinus Vein Thrombosis (SVT) is more common in newborns and childhood compared to adults. The most important reason is pregnancy puerperium and use of oral contraceptives. Headache, blurred vision, visual field loss, coma, focal and generalized seizures, status epilepticus may be seen. In this case, we examined a case who developed SVT after trauma.

Case: The two-year-old patient, who was unconscious outside the home and had a history of suspected trauma, was brought to the emergency room. The general condition was poor, the patient was confused. The patient's vital signs were stable. In the examination of the patient, there was peripheral facial paralysis on the right and swelling (hematoma) in the right occipitotemporal region was observed. In the cranial tomography of the patient with normal laboratory values, posttraumatic soft tissue swelling in the scalp in the right occipitotemporal region and a non-displaced fracture line extending to the skull base at this level were observed. On MR venography, edema-hemorrhagic thickening of the scalp in the right parietooccipital region and thrombus causing hyperintense filling defect in the Flair extending to the sigmoid sinus and jugular vein in the right transverse sinus were observed.

Conclusions: Compared with arterial ischemic strokes, venous ischemic strokes have a better prognosis and lower mortality. Superior sagittal and transverse sinus thrombosis is most common. Diagnosis is made by suspicion of clinical condition and imaging. Even if there is an increase in CSF pressure and a slight increase in protein and cells, lumbar puncture has no place in the diagnosis. SVT should be considered in the differential diagnosis of other pathologies causing headache. Most of the cases respond to anticoagulant therapy. It has been shown that recanalization starts after 3 months and increases at different rates until the first 12 months. It has been suggested that anticoagulation should be continued for 6 months with vitamin K antagonists after the acute phase. In the case we examined, it is seen that the incident occurred after a head trauma. In case of clinical suspicion after trauma, the possibility of SVT should be considered and imaging is important.

Keywords: Sinus Vein Thrombosis, Trauma, MR Venography, Cranial tomography

P-106

THALAMIC INFARCT DETECTED IN PATIENT WHO ADMITTED WITH EYE PAIN

İsmail Ayan[1], Ezgi Seyhan Yılmaz Ayan[1], Halil Kaya[1], Mustafa Tolga Özdal[1], Mehmet Oğuzhan Ay[1], Melih Yüksel[1], Umut Ocak[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Immediate diseases of the eye can threaten vision directly, causing permanent blindness if left untreated. In all patients, after complaints and symptoms, vision, eye movements, pupillary responses, visual field examination with the confrontation method, color examination with the Ishiara test, and the fundus of both eyes with direct ophthalmoscopy should be evaluated. Superficial problems such as conjunctivitis, corneal abrasion, conjunctiva-corneal foreign body, dry eye and blepharitis, hordeleum or chalazion can often be seen in the emergency room. Conditions requiring urgent intervention such as penetrating or non-penetrating injuries of the eye, chemical burns, acute glaucoma, central retinal artery occlusion, retinal detachment are less common.

Case: A 41-year-old female patient presented to the emergency department with left eye pain. There was no known additional disease. In the patient who described double vision, GCS 15, IR +/+, muscle strength 5/5, no laterillation, cerebellar tests were normal, and cranial eye movements were normal. Diff MRI and Brain CT were taken. Ophthalmology was consulted for the suspicion of retinal detachment. There was no bleeding area in brain CT, and a left thalamic infarct with ADC equivalent was observed in diffusion MR. In the control examination, the patient was conscious, visual field and eye movements were normal, but vertical nystagmus in upward gaze, right nasolabial sulcus lameness, and right hemiparesis were detected. The patient was consulted to Neurology and hospitalized.

Conclusions: The occipital lobe is the part of the brain that mainly processes vision. In occipital lobe damage, cortical blindness (in bilateral damage) or loss of the visual field opposite the damaged side (controlateral homonymous hemianopsia) develops. There may be findings such as inability to recognize faces, inability to recognize colors, and reading disorder. Rarely, patients with thalamic infarct may present to the emergency department with atypical symptoms, as in our case.

Keywords: thalamic infarction, eye pain, atypical symptom

P-042

A RARE, SERIOUS CAUSE OF ACUTE ABDOMINAL PAIN: ESOPHAGEAL FOREIGN BODY

Mehmet Bilgin[1], Alperen Şahin[1], Burcu Genç Yavuz[1], İbrahim Altundağ[2], Şahin Çolak[1], Kaan Yusufoğlu[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Esophageal foreign bodies cause serious morbidity and mortality all over the world. Although foreign bodies can be seen at different levels of gastrointestinal tract, they are mostly seen (28-68%) in the esophagus.The incidence of foreign bodies in the esophagus is 70% in cricopharynx, %15 in thoracic part of esophagus and 15% in gastroesophageal junction respectively.Symptoms may vary depending on the age, complications, shape, structure and location of the swallowed object.The most common symptoms are dysphagia, dyspnea and chest pain or epigastric pain rarely.Our aim with this article is to emphasize that abdominal pain, which has many different causes, may develop uncommonly due to foreign bodies located in the distal esophagus.

Case: A 42-year-old female patient without known disease or drug usage was admitted to the emergency department with the complaint of a stinging sensation in the throat and epigastric pain. The symptoms started after eating chicken. Abdominal examination and vital parameters were normal.There wasn't pathology on abdominal or posteroanterior chest X-ray.Blood tests were also normal.Throrax CT was requested due to uncontrollable complaints and hypersalivation.Dense foreign body was seen in the distal esophagus on throrax CT.After that, urgent endoscopic intervention was performed.Chicken bone was successfully removed from the distal esophagus through the procedure, which was completed without complications.

Conclusions: Absence of foreign body on radiograph does not exclude foreign body. Foreign bodies can be missed very easily, especially in anatomical regions such as the neck and mediastinum, where it is difficult to evaluate with X-ray.CT should be requested in the presence of clinical suspicion.Foreign body includes important risks such as esophageal perforation and mediastinitis in terms of morbidity and mortality.Therefore, urgent medical intervention is required to prevent the development of complications.Delayed treatment, thoracic or abdominal rupture and underlying esophageal disease are negative prognostic factors that increases mortality.Rigid esophagoscopy is an effective and safe method in the diagnosis and treatment of esophageal foreign bodies.In the chaotic environment of the emergency room, effective anamnesis and physical examination allow patients to be diagnosed correctly and treated quickly.It also eliminates unnecessary examinations and treatments.

Keywords: Esophageal foreign body, foreign body, epigastric pain, Chicken bone

P-039

NOT ALWAYS AN ACUTE ABDOMEN: A CASE OF GASTRIC CANCER

Mustafa Oğuz Alp Çelik[1], Alperen Şahin[1], Burcu Genç Yavuz[1], İbrahim Altundağ[2], Şahin Çolak[1], Mustafa Ahmet Afacan[1]

[1]University Of Health Sciences, Haydarpaşa Numune Training And Research Hospital, İstanbul, Department Of Emergency Medicine
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Virchow's nodule is a lymph node located in the supraclavicular region, described by Dr. Rudolf Virchow in 1948.Virchow nodule has been identified as a site of metastasis for cancers originating from the gastrointestinal tract,urogenital tract,and lungs.It's frequently seen in gastric, ovarian and pancreatic cancers. It has also been reported with squamous cell carcinoma and lymphoma.In this article, we aimed to emphasize the importance of lymphadenopathies that can be detected in imaging performed in emergency departments for detecting malignancies that will directly affect the patient's quality of life and long term mortality.

Case: A 65-year-old female patient with hypertension applied to the emergency department with complaints of abdominal pain, nausea and vomiting for 1 week.She had also swelling on the left side of her neck for 1 month. She applied to different centers for three years with similar complaints, but could not find a solution.There was stiffnes in the epigastric region but no findings that suggest of acute abdomen such as tenderness, defense or rebound. In the systemic examination palpable, painless swelling was detected in the left supraclavicular region. Except CRP:65mg/l and Hb:10.4g/dl,the laboratory results were normal.In abdomen CT, an increased gastric wall thickness of 17 mm and multiple lymphadenopathies which the largest is 21 mm were observed in the perigastric and peripancreatic areas.The patient was admitted to the internal medicine service for further examination and treatment with a preliminary diagnosis of gastric or pancreatic cancer.

Conclusions: It's a known fact that gastrointestinal malignancies have high mortality despite the advances in current treatment approaches, and early diagnosis is life-saving.The possibility of gastrointestinal malignancy should always be considered in middle-aged patients who present with frequent and undiagnosed dyspeptic symptoms,regardless of gender.Any finding that may be associated with malignancy(weight loss,persistent symptoms,pathological lymphadenopathies) should be questioned in detail.The duty of emergency physicians isn't only to diagnose and treat acute pathologies associated with mortality or requires early intervention,but also to perform preventive medicine simultaneously.It should be kept in mind that patients presenting with abdominal pain may apply not only for acute abdomen but also due to pain that develops due to chronic but serious mortal pathologies.

Keywords: gastric cancer, Virchow's nodule, lymph node, malignancy, abdominal ct

P-031

PURPLE BAG URINE SYNDROME: AN ALARMING HUE?

Rabia Raziye ÖZDEMİR[1], Suna ERAYBAR[1], Mehtap BULUT[1], Serhat ATMACA[1]

[1]University of Health Sciences Turkey, Bursa City Hospital Emergency Department

Background and aim: Purple urine bag syndrome (PUBS) is a rare syndrome associated with alkaline urine and some urinary tract infections, and is more frequently observed in chronically catheterized and constipated women. The urinary catheter drainage system changes colour from red or blue to violet or purple, sometimes with differently coloured tube and bag. PUBS is generally benign, and intensive treatment is not usually needed

Case: A 69-year-old female patient admitted to the emergency department with complaints of bruising and difficulty in breathing. The patient has known hypertension, diabetes mellitus, history of cerebrovascular disease and Alzheimer's diseases and inmobility for 1 year. Relatives stated that there was a decrease in oral intake since percutaneous endoscopic gastrostomy had leaked for 1 week. The patient's arrival vitals blood pressure: 120/90 mmHg, pulse rate: 100/ min and,spO2 87%. With auscultation, respiratory sounds decreased. She is confusion and left hemiplegic (sequelae). It was observed that the urine coming from the urinary catheter inserted in the emergency room was purple in color. In the laboratory results of the patient, there were 3+ leukocyte esterase, 4+ bacteria in urine analysis. The patient, who was evaluated with leukocytosis and high CRP and accompanying pneumonia, was admitted to the internal medicine clinic for follow-up and treatment.

Conclusions: PUBS was first reported in 1978. It is seen in patients on chronic catheterization with urinary infection, and was thought to be rare .It is secondary to UTIs with indigo- and indirubin-producing bacteria, most commonly Escherichia coli, Citrobacter spp or Proteus spp. Dietary tryptophan is metabolized to indole by gastro-intestinal bacteria and then converted to indole sulfate in the liver. Certain bacteria possess enzymes which catalyze indole-sulfate, finally producing indirubin (red) and indigo (blue) that then concentrate in the urine, producing an intense purple color. Female gender, constipation, urinary tract infection, dementia, alkaline urine, and high urinary bacterial counts are associated with PUBS. PUBS can be associated with significant morbidity and mortality, but PUBS itself is a benign condition. Treatment should be aimed at underlying medical problem rather than at PUBS itself.

Notes (Optional): Images and resources of the case will be added in the full text

Keywords: Urinary tract infection, purple urine, emergency department

P-068

An Unusual Presentation of Ruptured Abdominal Aortic Aneurysm: A Case Report

Fevzi Yılmaz[1], Fadime Kara[1], Esra Sönmez Üçkapı[1]

[1]Antalya Eğitim Araştırma Hastanesi

Background and aim: Ruptured abdominal aortic aneurysm (AAA) is among the surgical emergencies with highest mortality, generally causes death in 90% of cases. Most AAA ruptures open into the retroperitoneal space, and are recognized by the classical triad of pain, hypotension, and a pulsatile mass. Unfortunately, only 25% to 50% of patients present with this triad; thus, many patients with ruptured AAA either remain undiagnosed or are falsely diagnosed with other diseases.

Case: A 75-year-old man presented to the emergency department (ED) with sudden-onset dyspnea, nausea, and left pelvic pain. Imaging studies revealed aneurysmal dilation of abdominal aorta, inferior to the origin of the renal artery, and intraabdominal free fluid. The patient was consulted with the department of cardiovascular surgery and urgently taken to operating room with the preliminary diagnosis of an AAA rupture.

Conclusions: Our report presents an unusually rare presentation of a life-threatening disorder. Early diagnosis, referral to vascular surgery, and possible open or endovascular repair are key to limiting AAA-related morbidity and mortality

Keywords: Abdominal aorta aneurysm, retroperitoneal hematoma, mortality

P-125

Opioid toxicity and acute lung injury

Ayşe Tekin Acar[1], Fatih Selvi[1], Ceren Kabasakal[1], Nazmi Toprak[1]

[1]Antalya Eğitim ve Araştırma Hastanesi

Arka plan ve amaç: Opioids are opium compounds with analgesic properties. Opioids are used in the treatment of cancer-related pain because of their effectiveness for all pain. Especially opioid transdermal patches are agents used in cancer patients. Their inappropriate use is indicated as opioid toxicity.Opioid toxidrome is miosis, lethargy, and respiratory depression. Although rare, lung injury due to opioid intake is one of the clinics we may encounter. Acute lung injury may occur immediately or up to 24 hours after an overdose.It presents with tachypnea, rales, decreased oxygen saturation, and bilateral pulmonary infiltration. In this case, lung damage due to the use of opioid transdermal patch will be discussed.

Vaka: Known bladder cancer 81 years old male patient applied with complaints of weakness and loss of appetite. Her arrival vitals were normal, and coarsening of breath sounds and 1+ pretibial edema in the right leg were detected on physical examination. In the patient's thorax tomography, airbronchogram of the left lung and ground glass were observed around it, and it was interpreted as pneumonic infiltration. In the control vitals of the patient who had shortness of breath and worsening in consciousness, saturation was calculated as 65% and GCS 12. In the control examination, 3 opioid bands were found. Naloxane was administered with a prediagnosis of opioid toxicity in a patient with respiratory and cognitive impairment. The patient's consciousness improved after naloxane, and his breathing did not improve. With the reservoir mask, the patient's saturation increased to 80.Thoracic CT angiography was performed on the patient because of acute shortness of breath, tachycardia, diameter difference in the leg, and desaturation unresponsive to naloxane.

Kararlar: No pulmonary embolism was detected in the patient's tomography, but opioid-induced lung injury was considered due to diffuse frosted glass appearance and infiltration in the lung parenchyma compared to his previous tomography. In opioid toxications, naloxane is effective in reversing unconsciousness and respiratory depression, but naloxane does not reverse the damage in opioid-induced lung injury.

Notlar (Opsiyonel): Lung injury due to opioid toxicity is a rare complication, but opioid-induced lung injury should be considered in respiratory depression unresponsive to naloxane.

Anahtar Kelimeler: opioid toxicity, acute lung injury

P-079

ACUTE NEUROGENIC PULMONARY EDEMA AFTER EPILEPTIC SEIZURE: A CASE REPORT

Tunahan Mehmet Kayapınar[1], Mehmet Esat Ferhatlar[1], Edip Burak Karaaslan[1], Mücahit Şentürk[1], Asım Kalkan[1]

[1]SBÜ Prof. Dr. Cemil Taşcıoğlu Şehir Hastanesi

Background and aim: Neurogenic pulmonary edema (NPE) is a non-cardiogenic pulmonary edema that occurs after a significant central nervous system injury. The mechanism of neurogenic pulmonary edema is still not fully understood. NPE is a life-threatening complication. Major causes of NPE are epileptic seizures, traumatic brain injury, and intracranial hemorrhages.[1] It can develop rapidly following an epileptic seizure and significantly complicates the general clinical condition of the patient. We presented a case of a patient who developed pulmonary edema after epileptic seizure.

Case: A 73-year-old male patient with known epilepsy presented to our emergency department with the complaint of having two generalized tonic-clonic seizures lasting approximately 5 minutes. No pathological finding was detected in the physical examination performed at the time of admission, and his vital signs were normal. During the follow-up in the emergency department, the patient suddenly developed tachypnea. The patient's physical examination was repeated. Respiratory rate was 36/min and there were bilateral diffuse rales in the lungs. Chest X-ray showed bilateral perihilar opacities. Blood gas analysis in room air was po2:63, spo2:89. In the echocardiography performed on patient, systolic and diastolic functions were reported as normal. Respiratory support was provided to the patient with noninvasive mechanical ventilation. The patient was consulted with the intensive care unit for follow-up and continuation of the treatment.

Conclusions: NPE occurs as a result of perivascular edema, extravasation, and accumulation of intra-alveolar protein-rich edema fluid. Although many mechanisms have been suggested, the exact cascade leading to the development of NPE is unclear. One proven mechanism of seizure-induced NPE is increased pulmonary vascular resistance with increased sympathetic discharge after an intense tonic-clonic seizure. [2] NPE characteristically presents within minutes to hours and dyspnea is the most common symptom. [1] The treatment strategy is to treat the underlying disease and adequate oxygenation. NPE can be difficult to diagnose. Because it is a clinical diagnosis based on the occurrence of pulmonary edema in the absence of a more likely alternative cause. The presence of central nervous system damage and the absence of common causes of acute respiratory failure are helpful in diagnosis.

Keywords: nörojenik akciğer ödemi, solunum acilleri, nonkardiyojenik akciğer ödemi, epilepsi, akut nöronal hasar

P-046

FOREIGN OBJECT IN THE RECTUM

Semih Korkut[1], Kemal Şener[1], Ertuğrul Altuğ[1], Mustafa Çelik[1]

[1]basaksehır Cam And Sakura Cıty Hospıtal Emergency Department

Background and aim: The presence of foreign bodies in the rectum is frequently encountered in the literature. This situation is very common with objects inserted through the anus, but it can be seen with a small percentage of foreign bodies taken orally. It is an increasing cause of emergency admission over the years. It requires a careful anamnesis and physical examination. The most serious complication is perforation. There are many types of foreign body insertion or insertion, one of the most commonly used is household items, followed by beer bottles and dedorants. Although the cases are mostly seen in men, they appear between the ages of 30-40. Insertion of a foreign body into the anus is a cause of emergency admission, mostly seen in drug dealers, homosexuals, and abusers. Rectal foreign bodies have been rarely reported as a component of Munchausen ByProxySyndrome. Autoerotic rectal foreign body cases have also been reported in boys aged 12-18 years in the literature.The importance of anamnesis, physical examination, diagnosis and treatment of the foreign body in the rectal region is seen in our case.

Case: HİSTORY69 years old male patientHe presents to the clinic with foreign body insertion from the anus in an external stump and has abdominal pain.The bottle of deodorant escaped into the rectum as a result of trying to force the bottle of deodorant from the anal area during sexual intercourse.FAMİLY HİSTORYNo family historySOCİALHİSTORYNo history of tobacco, alcohol or other drugsMEDİCATİONSNo medicationsPHYSICAL EXAMINATIONVital sign: body temperature:36, Sp02:100, BP:80/60 HR:47Respiratory examination is naturalCardiac examination: cardiac sounds are normal, S1/S2 is natural and no additioanl sound.Abdominal examination: there is sensitivity at he right upper quadrantExtremity examination:pretibial edema -/- and peripheral pulses are onLABORATORY DATACBC:WBC12 Biochemistry:CRP48İMAGİNGX-RAYPelvic CTretosigmoidoscopy

Conclusions: A foreign body in the rectum is an emergency surgical indication. If it is not removed by surgical intervention, obstruction findings will occur. In case of hemorrhage, a picture that can lead to tachycardia, hypotension and hemorrhagic shock may occur. The patient who is unstable or has peritonitis should be intervened in the operating room for emergency laparotomy. Foreign body exclusion is ensured by bedside extraction.

Keywords: Foreign body, Abdominal pain

P-103

BRAIN ABSCESS

Mustafa Akkaya[1], Mehmet Oğuzhan Ay[1], Tuncay Kuş[1], Halil Kaya[1], Melih Yüksel[1], Umut Ocak[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: A brain abscess is a serious, life-threatening condition. Brain abscesses are often seen after ear infections. Brain abscesses can also occur after head trauma (comminuted fractures, penetrating wounds), purulent infections from the lungs or other organs, and skull osteomyelitis. Cerebral abscess is mostly caused by bacteria, to a lesser extent by fungi and parasites. In the initial period of brain abscess, clinical findings are nonspecific. Headache is the most common symptom and is observed in 70% of cases. A triad of fever, headache, and focal neurologic deficit is seen in approximately 50% of patients. An intensive course of antibiotic therapy should be initiated as soon as the diagnosis of brain abscess is made. Various types of surgical approaches are used in the treatment of brain abscess.

Case: A 34-year-old female patient was brought to the emergency department with complaints of toothache for 1 week and headache and drowsiness added to it in the last 3-4 days. The patient has been taking antibiotics for the last 3 days. Arrival vitals were fever: 36.8°C, blood pressure: 130/70 mmHg, pulse: 80 min/beat, SPO2: 99%. She had no known chronic disease in her history. On physical examination, tonsils were hyperemic, and there was swelling in the gingiva on the right upper first molar tooth. In her neurological examination, the patient was apathetic, but there was no significant motor or sensory deficit. Brain CT was taken because of the patients' complaints did not regress with symptomatic treatment. On CT, a lesion extending from the right frontal lobe to the skull base was detected. Contrast-enhanced cranial MRI was performed and the patient was consulted to neurosurgeon with a preliminary diagnosis of abscess. The patient was hospitalized to investigate the etiology and to be operated.

Conclusions: It should be kept in mind that delay in diagnosis and treatment is one of the poor prognostic factors affecting mortality and morbidity in cases with brain abscess. Diagnosis of brain abscess should be kept in mind if patients had fever, headache, and focal neurologic deficit.

Keywords: brain abscess, headache, surgery

P-142

Both Subdural and Epidural Bleeding in Head Trauma

Murat ORAK[1], Berçem TUGAY[1], Taner EKİNCİ[1], Mehmet ÜSTÜNDAĞ[1], Mahmut YAMAN[1], Abdullah ŞEN[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Trauma in epidural and subdural hemorrhages that develop after surgery, the operation is planned for the patient according to the patient's clinic and the amount of bleeding.

Case: An eight-year-old girl applied to the emergency service with the complaint of hitting her head on the ground while playing ball. Consciousness: clear, general condition: good, oriented, cooperative gks. 15 patients vomited twice a day, and complained of mild headache. In the advanced examinations, epidural and subdural hemorrhage was observed in the patient on brain CT. The patient was consulted to neurosurgery. There is a hematoma of 10 mm in the first bbt of the patient, 12 mm in the control CT 4 hours later, 14 mm in the control CT scan after 12 hours, and 17 mm in the control CT at the 24th hour. The patient, who did not change in his clinic but increased bleeding area in his CT, was operated by neurosurgeon. Ischemic changes were detected in the postoperative CCT.

Conclusions: Epidural or subdural hemorrhages after trauma are patient groups that require close follow-up. Even if there is no worsening in the clinical condition during the follow-ups, it should be kept in mind that the bleeding of the patients may increase with the control BCTs and may require emergency surgical operation.

Keywords: Head Trauma, Subdural Bleeding, Epidural Bleeding, Emergency Service, Emergency Surgical Intervention

P-053

Spontaneous Pneumodiastinum

Mustafa İÇER[1], Serhat ÇELİK[1], Abdullah YILDIZ[1], Ercan GÜNDÜZ[1], Recep DURSUN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Pneumomediastinum (PM) is a clinical condition that we rarely encounter in our practice, and it is the formation of free air images in the mediastinal region that develop spontaneously or due to an underlying cause. It should definitely be kept in mind in the differential diagnosis, especially in young patients who present to the emergency department with sudden onset of chest pain or shortness of breath, in the absence of additional findings in the examinations performed. Chest radiographs are mostly sufficient for diagnosis, and lung computed tomography (CT) is used as the gold standard diagnostic method to evaluate the underlying etiology that cannot be detected by radiographs. In this case, we examined a patient with spontaneous pneumomediastinum.

Case: A 21-year-old female patient presented to the emergency department with chest pain that increased with positioning The general condition of the patient was moderately conscious, and her vital signs were stable. The abdomen is comfortable defender-no rebound. Lung sounds are natural. Physical examination was unremarkable and his EKG was normal sinus rhythm. Laboratory findings are unremarkable and cardiac enzymes are negative. Free air was seen around the mediastinum on imaging. Our patient was admitted to the Thoracic Surgery intensive care unit for follow-up and treatment.

Conclusions: Common symptoms in pneumomediastinum cases are shortness of breath and chest pain. If dyspnea and severe cough are present, O2 therapy and antitussive drugs are started. Patients who complete the treatment are called to the outpatient clinic at least once after discharge to check that the symptoms and clinical findings have improved. Pneumomediastinum picture is evaluated with chest X-ray. Additional control is not recommended unless new symptoms develop in the absence of PM. Relapses can be seen in pneumomediastinum cases, therefore follow-up is recommended. In a young patient who presents to the emergency department with acute chest pain, if there is no other finding causing this condition, pneumomediastinum should definitely be considered.

Keywords: Spontaneous Pneumomediastinum, Thoracic Surgery, Chest Pain, Emergency Department

P-086

Intracranial mass in a patient presenting with headache

Burak Alper Mollaoğlu[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Abdulkadir Çıtır[1], Dilara Özmen[1], Yeşim Aylin Kalafat[1], Hazel Deniz Erdoğan[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi, Acil Tıp Ana Bilim Dalı, İstanbul

Background and aim: Though the vast majority of headaches are caused by primary headache disorders,more ominous etiologies,such as cerebral neoplasm or metastatic disease,may also be heralded by headache. İt is very important for the emergency physician to make an accurate and effective differential diagnosis of headaches.

Case: A 41-year-old female patient presented to the emergency department with a complaint of headache.He had been describing increasing pain for 6 days. Bilateral minimal outward limitation was detected in her eye exam. CT scan was performed in the patient whose left nasolabial sulcus was slightly faint.

Conclusions: İn the CT scan, a hypodense area was observed in the right temporaparietal. Contrast-enhanced cranial magnetic resonance imaging revealed a lesion consistent with a contrast-enhancing mass in the right temporaparietal region. As a result though the vast majority of headaches are caused by primary headache disorders,more ominous etiologies,such as cerebral neoplasm or metastatic disease,may also be heralded by headache.

Keywords: headache, intracranial mass

P-128

Olive Leaf Extract Induced Hepatotoxicity

Samiye Kocal[1], Engin Deniz Arslan[1], Fırat Yücel[1], Ayşe Tekin Acar[1]

[1]Antalya Eğitim ve Araştırma Hastanesi

Background and aim: Toxic hepatitis is a pathology that frequently causes liver dysfunction. It can occur with two types of reactions defined as idiosyncratic and intrinsic mechanisms. Morphologically, it can cause different lesions in the liver, ranging from hepatitis to tumor. Risk factors for toxic events include genetic factors, chemical composition of the drug, age, gender as well as other underlying diseases and chronic alcohol use. In our case, toxic hepatitis related to the use of herbal products will be mentioned.

Case: A 67-year-old female patient presented to the emergency department with abdominal pain that started in the epigastric region last night and woke her up from sleep. There is a history of diarrhea 3-4 times that started last night and there was no fever, chills, nausea or vomiting. When the patient's anamnesis was taken again, it was learned that the patient had a history of drinking 4 glasses of olive leaf extract in the last 2 days. ALT: 216, AST 777, GGT: 138, total bilirubin: 1.76, direct bilirubin 1.02, INR: 0.98 were found. Due to the patient had a history of using olive leaf extract, she was evaluated as toxic hepatitis and was hospitalized. Upon the improvement in liver function tests during the follow-up of the patient, the patient was discharged to come to policlinic of internal diseases for control.

Conclusions: In our case, toxic hepatitis was observed in the patient after the use of olive leaf extract. Studies show that olive leaf extract is generally safe and does not show toxic effects even at high doses. . In only one study, some histological changes such as fatty cytoplasmic vacuolation, necrosis of hepatocytes, and a mild hemorrhage in both liver and kidneys of rats were reported after the addition of olive leaf extract (0.9%) for 6 weeks. in Wistar albino rats. This clinic of the patient may be due to comorbid diseases and multiple drug use, as well as the fact that the patient did not use new drugs and used olive leaf extract in the last 2 days.

Notes (Optional): That's why we associated the cause of toxic hepatitis with olive leaf extract.

Keywords: olive, leaf, Hepatotoxicity

P-084

Straghorn Type Calculus

Bilal Yeniyurt[1], Zeyni Kalender[1], Mahmut Kerem Avşaroğlu[1], Süreyya Tuba Fettahoğlu[1], Ümran Arasan[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Staghorn (staghorn) kidney stones is the term used for stones that fill at least 2 of the small urinary chambers in the kidney and the main urinary pool (pelvis). It was given this name because it resembles a deer antler in shape. The chemical content of Staghorn stones is usually magnesium-ammonium-phostat (struvite) or calcium-carbonate-apatite. These substances accumulate in the kidneys in people with urinary tract infections and cause stone formation. For this reason, struvite and apatite stones are also known as infection stones. It is interesting that it causes obstruction in the urinary channels until the last period. Treatment can be performed by planning a nephrectomy until the kidney is thinned and the functions decrease below 10% in the scintigraphy.

Case: A 43-year-old male patient presented to the emergency department with severe flank pain. He had no known chronic disease in his history. On physical examination, his general condition was good and his consciousness was clear. West did not have a comfortable defense and rebound. There was right costal vertebral angle tenderness. Routine examinations were requested from the patient who did not find acute sonopathology in abdominal ultrasonography taken under emergency conditions and did not get relief after symptomatic treatment. Tomographic imaging was requested as the patient's complaint did not resolve in the routine examinations taken. A 3-cm straghorn-type calculi was observed in the lower middle zone of the right kidney of the patient, who was evaluated by lower abdomen tomography . The patient was discharged with urology follow-up and recommendations.

Conclusions: Hundreds of people apply to the emergency department every day with the complaint of renal colic. And many patients are discharged after symptomatic treatment. However, in some types of calculi, it can cause chronic kidney failure if not treated early. The follow-up of patients for renal colic before reaching this stage may be important in terms of morbidity.

Keywords: staghorn, calculus, renal colic

P-029

Burun tıkanıklığından mortaliteye progres: Sinüzit komplikasyonu olarak intrakranial apse

Sercan Eroğlu[2], Burak Çelik[1]

[1]Kırşehir Eğitim ve Araştırma Hastanesi, Acil Servis
[2]Ahi Evran Üniversitesi Tıp Fakültesi, Acil Tıp Anabildim Dalı

Arka plan ve amaç: Sinüzit, klinik olarak nazal kaviteyi ve paranazal sinüsleri kaplayan müköz zarlarda, sıvılarda veya alttaki osseöz yapılarda ortaya çıkan enflamatuar cevap olarak tanımlanabilir. Sinüzit enfeksiyonu, orbita ve intrakraniyal dokulara hızla yayılabilmesi nedeniyle ciddi ve mortalitesi yüksek komplikasyonlara yol açabilir. Kemik açıklıklar ve diploik venler vasıtası ile patojen organizmaların ilerlemesi sonucu kafa içi komplikasyonlar görülür. Pürülan sinüzitler intrakraniyal komplikasyonlar nedeniyle hayatı tehdit edici hastalıklar arasında yer almaktadır. Erken tanı ve uygun tedavi ile sinüzitin neden olduğu kafa içi komplikasyonlara bağlı mortalite azalır. Bu sunumumuzda, sinüzit nedeniyle antibiyotik tedavisi alan ve intrakranial apse gelişen bir olguyu sunmayı amaçladık.

Vaka: Bir gün önce burun tıkanıklığı, baş ağrısı şikayetlerinden sinüzit ön tanısıyla ayaktan amoksisilin/klavulonat ve parasetamol tedavisi başlanan 19 yaşındaki erkek hasta, acil servise baş ağrısı, ateş, bilinç bulanıklığı şikayeti ile başvurdu. Hastanın kronik hastalık, immunsupresyon, geçirilmiş operayon öyküsü veya sürekli kullandığı bir ilacı olmadığı öğrenildi. Fizik Muayenede genel durum orta bilinç bulanık, nonkoopere, pupiller izokorik, ır+/+ kranial sinir muayenesi normal, ense sertliği var, sol üst ve alt ekstremite 1/5 kuvveti mevcut. Vitaller; kan basıncı 110/60 mmHg, nabız 110/dk, solunum sayısı 17/dk, ateş 38,9 C, oksijen saturasyonu 95 saptandı. Tam kan sayımında; lokosit 5,360 mm3, %56,1 neutrofil, %23,7 lenfosit, hemoglobin 13,3 g/dl, trombosit 139,000 mm3, Procalcitonin 0,144 ng/mL, CRP 16 mg/L bulundu. COVID-19 PCR testi negatif. BT ve MR görüntülemede orta hatta şift, intrakranial hematom veya apse ile uyumlu olabilecek görüntü saptandı. Beyin cerrahisi tarafından acil operasyona alınan hastada kraniotomi sonrası apse drenajı yapıldı. BOS, kan ve idrar kültüründe üreme olmayan hastada ameliyat sonrası alınan doku kültüründe Ekinella Corrodens üredi. Hastaya meropenem, vankomisin ve metranidazol anitibioterapisi verildi. 47 gün hastanede tedavi edilen hasta sol üst ve alt ekstremite 4/5 kas gücü ile taburcu edildi.

Kararlar: BT, sinuzite bağlı gelişebilecek İntrakranial apse gibi komplikasyonların değerlendirilmesinde yararlıdır. Manyetik rezonans görüntüleme intrakraniyal apse gibi komplikasyonları değerlendirmede klinisyene yardımcı olan bir yöntemdir. Bizim hastamızda da BT ve MR tetkikleri ile intrakrinal apse komplikasyonu tespit edildi. Pürülan menenjitte baş ağrısı ve ense sertliği bulunur ve toksik görünüme ateş eşlik eder. Bizim hastamızda da genel durum bozukluğu, ateş, ense sertliği mevcut olup hastada nörolojik defisit tespit edilmişti. Literatürde hastanın tedavisinin devamında nörolojik defisitlerin kalabileceği bildirilmiştir. Sinüzit ve baş ağrısı şikayeti ile başvuran hastalar intrakranial komplikasyonlar akılda tutulmalı, fizik muayenede pozitif bulgular tespit edilen hastalarda santral görüntülemeler yapılmalı ve erken tedavi başlanmalıdır.

Notlar (Opsiyonel): Kaynaklar:1) Erkan, M., & Somdaş, M. (2000). Rinosinüzit komplikasyonları. Van Tıp Dergisi, 7(2), 75-79.2)Gür, Ö. E., Gediz, T., Çetinkaya, E. A., Öztürk, G., & Yılmaz, M. D. (2019). FRONTAL SİNÜZİT ORBİTAL VE İNTRAKRANİAL KOMPLİKASYONU. ENTcase, 5(1), 6-11. 3)Sinüzit Sonucu Gelişen Subperiostal Orbital Apse ve Frontal Epidural Apse: Olgu Sunumu. Turkish Journal of Ophthalmology/Turk Oftalmoloji Dergisi, 43(6). 4)CAN İH. Sinüzit Komplikasyonlar›. İç Hastalıkları Dergisi 2008; 15(4): 188-193

Anahtar Kelimeler: Acil servis, Ekinella Corrodens, intrakranial apse, sinüzit

P-004

SACRIFICE WORSHIP IS A SEASON FOR SKIN ANTHRAX, EVEN OUTSIDE OF ENDEMIC AREAS

Alparslan Gündoğdu[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Sarper Yılmaz[1], Beyza Dağ[1], Muhammed Masum Kurt[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Anthrax;It is a disease known as Shepherd's Boil in Anatolia,caused by Bacillusanthracis-bacteria,which can be transmitted from animals to humans by contact and through the air.Dermal anthrax is most commonly known as it most commonly affects theskin,but anthrax can also affect the respiratory and digestive systems.The most susceptible animals are cattle, sheep and goats.Ascan be seen,these animals are the animals we come into contact with most frequently forsacrifice worship.Although it is a notifiable disease inTurkey and its frequency decreases overtime.However,it can be encountered again,especially in casesof uncontrolled animal rearing in pastures.Because anthrax has forms that can survive in thesoil for a long time.Veterinarians are practitioners of a good public health program in thisregard.Unfortunately,anthrax in veterinarians is an occupational disease.Especially if there are wounds and cracks on the hands, if there is contact with the skinand meat of an animal with bare hands, if a black wound in the middle and red around the skinoccurs within 7 days, it is recommended to consult a doctor. It does not just hold the hand and.Especially in skin anthrax; Although good results can be obtained in early treatment, the successof treatment is not so positive in forms involving the respiratory and intestinal system.While penetrating anthrax-related skin woundscan make it worse,applying cream doesn't work.With treatment,the wound does not healquickly.It has a definite clinical course.The anthrax used in bioterrorism,that is,put in theseenvelopes and sent,is generally respiratory tract anthrax.It is more difficult to treat and moredeadly.

Case: 35-years-old male-patient.He presented to the Emergency Service after a woundappeared on his hand after slaughtering the victim.He had no history of chronicillness or regular drug use.He had no history of allergies and psychiatric illnesses.Vital signson admission and bedside glucose results were as follows: blood-pressure:120/60-mmHg,pulserate:70-bpm,respiratory-rate:15-bpm,temperature:37.5 C,GCS:15. It was learnedthat the patient had cracks in her hand during the sacrifice.Gram smear and cultures test wereperformed.The patient was started on penicillin in the early period and was followed up.

Conclusions: Anthrax is still endemic in eastern Anatolia in Turkey.Anthrax can be seen evenoutside the endemic regions,especially during the sacrificial period.The results will besatisfactory when treatment is started quickly with an early and accurate diagnosis method.

Keywords: anthrax, skın anthrax, endemıc area

P-072

Syncope Secondary to the Pulmonary Embolism

Sibel Yaşar[1], Avni Uygar Seyhan[1], Rohat Ak[1], Erdal Yılmaz[1], Nihat Müjdat Hökenek[1], Muhammet Zahit Tursun[1], Seda Gökdoğan[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Syncope Secondary to the Pulmonary EmbolismIntroduction: Syncope is one of the most common reasons to admit the emergency department (ED). In general, the reasons of syncope are subtitled as serious cardiovascular conditions (Cardiac Syncope) and reflex syncope(Neurally Mediated;Vasovagal Syncope ect). On the other hand, pulmonary embolism (PE) is a common condition admission to the ED and can be the source of significant morbidity and mortality. However, the prevalence of pulmonary embolism in patients presenting with syncope to the emergency department is largely unknown. In this case report, we aimed to present syncope developed PE.

Case: Case: A 81-year- old female patient was admitted to the ED with syncope as the second time in the same week. In her anamnesis, she lost consciousness for approximately 2-3 minutes. In detailed, she had difficulty breathing in last 3 days. There was no history of trauma, cardiac disease. The diagnoses of COPD, Alzheimer's disease and were known. Vital signs were BP: 109/76 mmHg, P:96, fever:36°C and sO2: 96%. Physical examination revealed the auscultation of rhonchi and longed breath sounds on expiration. Other system findings were normal. On ECG:T neg was available. Glucose 132 mg/dL (74-106); Hemoglobin 13.2 g /dl(12.00-14.00); Leukocytes 6,760/mm3(4,000-10,000/mm3); Troponin T hs 0.036 µg/L(0-0.014); D-Dimer 6440 µg/L(FEU)(0-550);other parameters, including liver and renal function tests were within normal limits. Nevertheless, on echocardiography, right ventricle (RV) dilatation and RV dysfunction [cor pulmonale] were reported and also PA pressure: 125 mmHg was measured. Following that, the computed tomography pulmonary angiography showed filling defects within the pulmonary vasculature with acute pulmonary emboli which was occlusive.The patient was diagnosed as massive PE.

Conclusions: Discussion: It is reported that a long-term follow-up was complete in 1,397 patients presenting with syncope to the ED, PE was detected at presentation in 19 patients (1.4%;95% confidence interval [CI]:0.87% to 2.11%). As a consequence, syncope is the "forgotten sign" of life-threatening pulmonary embolism. Therefore, on patients who have syncope, considering the PE as a differential diagnose; physicians should question if there are predisposition factors of thrombus/embolism by detailed anamnesis, medical history or via personalized online med-systems (i.e. e-Nabız) and diagnose with echo.

Keywords: Syncope, Pulmonary Embolısm, Pabp, Cor Pulmonale

P-045

A RARE PERFORATION CASE

Ayşe Kılıç[1], Melih Yüksel[1], Mehmet Oğuzhan Ay[1], Umut Ocak[1], Deniz Fırat[2], Tuncay Kuş[1]

[1]University of Health Sciences Turkey, Bursa Faculty of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa,Türkiye
[2]University of Health Sciences Turkey, Bursa Faculty of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of General Surgery, Bursa,Türkiye

Background and aim: Iatrogenic colonoscopy perforation (ICP) is a serious complication that may occur during both diagnostic and therapeutic procedures. Colon perforations are most common in the antimesenteric area and at the sigmoid and rectosigmoid junction. This area is the most prone to physiological ischemia since there is no anastomosis between the sigmoid artery and the superior rectal artery. In our case, a perforation area was also observed in the antimesenteric area, at the sigmoid and rectosigmoid junction.

Case: A 67-year-old female patient had hypertension and asthma as comorbidities. Colonoscopy was recommended in elective conditions due to the patient's occasional stomach and intestinal discomfort. 3-4 hours after colonoscopy, the patient presented to the emergency department with the complaint of widespread abdominal pain. One hour after the colonoscopy, the patient had severe abdominal pain and nausea and vomiting in attacks. On physical examination, there was widespread distention tenderness and defense in the abdomen. Since the pre-diagnosis of perforation secondary to colonoscopy was considered, vitals and routine blood samples were taken quickly before the operation. PA chest X-ray was taken for the patient whose vitals were stable. Free air was detected under the diaphragm in X-Ray. The patient was taken to emergency operation in consultation with the General Surgery Specialist. In the abdominal exploration of the patient who was taken into surgery, a full-thickness perforation area was observed at the rectosigmoid junction. End colostomy was opened to the patient. Postoperative X-Ray.

Conclusions: Although traumatic colon perforations are rare, they require emergency surgery. Although 45-60% of iatrogenic perforations are diagnosed by an endoscopist during colonoscopy, many iatrogenic perforations are not immediately recognized. Bu olgumuzda da endoskopik işlemden sonra ortaya çıkan klinik belirti ve semptomlara dayanarak tanıya ilerledik. In our case, we proceeded to the diagnosis based on the clinical signs and symptoms that emerged after the endoscopic procedure.

Keywords: emergency medicine, general surgery, colon perforation

P-156

After The Use Of Traditional Herbal Drugs: Chemical Burn

Abdullah ŞEN[1], Mehmet ERKUŞ[1], Abdullah YILDIZ[1], Murat ORAK[1], Mehmet ÜSTÜNDAĞ[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Mankind has encountered the phenomenon of disease with its existence in the world and has constantly sought to develop different treatment methods to protect its health. Many of the traditional treatment methods have been transferred from generation to generation through cultural transmission and continued to be applied in different parts of societies. In this case, we discussed the burn and treatment of a patient suffering from chronic knee pain after applying a mixture of chamomile leaves on both knees.

Case: A 59-year-old female patient; A week ago, he applied a mixture of chamomile leaves to both knees for 3 days in order to relieve knee pain. He applied to the emergency room due to the increasing burns that occurred afterwards. The patient was conscious, cooperative and oriented. Vitals: Blood pressure: 120/80 mmHG, pulse: 65 beats/min, fever: 36.6 °C, SpO2: 99. On physical examination, lesions with bullous discharge on an erythematous background covering 3% of the total body surface area were present on both kneecaps anteriorly (Figures 1 and 2). Motor, sensory and circulatory examination were normal. There was local temperature increase in both knees. No pathological finding was found in the other system examination. After the primary evaluation of the patient, surgical debridement of both knee regions was performed. Systemic antibiotic therapy was administered, local treatment was started. A noticeable improvement was achieved after ten days of treatment.

Conclusions: In recent years, many people have been using various plants and herbal products for preventive or therapeutic purposes. Incomplete information in the media leads to a widespread belief that everything natural is harmless. However, the idea that "everything natural is useful" is wrong. Unexpected side effects may develop depending on the hundreds of components contained in the plants. In addition, some of them may show toxicity or interact with other drugs taken, causing the person's discomfort to increase. Although herbal treatment, based on prehistoric times, has guided today's pharmacotherapy, the wrong application of traditional treatments and misinformation; may cause complications as in our case.

Keywords: Chemical burn, Chamomile Leaf, Phytotherapy

P-058

From acute cholecystitis to atrial flutter

Berk Çakmak[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Ecem Taşçı[1], Özge Kibici[1], Selin Çakıcı[1], Seda Gökdoğan[1]

[1]Kartal Lütfi Kırdar Şehir Hastanesi

Background and aim: Atrial flutter is an abnormal cardiac rhythm characterized by rapid, regular atrial depolarizations at a characteristic rate of approximately 300 beats/min and a regular ventricular rate of about 150 beats/min in patients not taking atrioventricular nodal blockers. It can lead to symptoms of palpitations, shortness of breath, fatigue or lightheadedness. There is an increased risk of atrial thrombus formation that may cause cerebral and/or systemic embolization.

Case: A 61-year-old male patient presented to the emergency department (ED) with the complaint of abdominal pain. History revealed atrial fibrillation (AF), lung cancer and cerebellar metastasis (last chemotherapy received was 1 month ago). Chronic medication consisted of metoprolol, rivaroxaban. His vital signs in the admission were within normal limits. Physical examination was unremarkable aside from right upper quadrant tenderness and rales consistent with known pleural effusion in the left lower zones. ECG revealed atrial fibrillation with a heart rate of 75 bpm. Blood samples were taken and analgesic treatment was started. Patient's blood results were as followed: AST: 309 U/L, ALT: 280 U/L, Creatinine: 2.08 mg/dL, Urea: 121 mg/dL, Troponin-T: 0.116 qg/L, CRP: 164.8 mg/L. Elevated liver enzymes and enfective markers arose the suspicion of cholecystitis and abdominal ultrasound was done and the gallbladder dimensions were within normal limits but gallbladder wall thickness was found to be increased and edematous and there were a few milimetric calculus in gallbladder lumen. During the follow up, patient was hypotensive (BP:89/69 mmHg), tachycardic (110 bpm) and tachypneic (RR:35/min). ECG was repeated and revealed atrial fibrillation with a high ventricular response. Because the patient was unstable electrical cardioversion was done with 150 joules and ECG was repeated and revealed a normal sinus rhythm with a normal pulse. After the stabilization of the patient, he was transferred to coronary intensive care unit.

Conclusions: When the complaint of abdominal pain is mentioned in ED; acute coronary syndromes should be kept in mind in differential diagnosis. A detailed patient history can give us information about cardiac problems. When acute atrial fibrillation is encountered, decision of stability of the patient should be made and treatment should be started immediately.

Keywords: atrial flutter, ecg, atrial fibrillation, acute cholecystitis, cardioversion

P-065

Stomach Pain? Aortic Dissection?

Recep DURSUN[1], Helin ŞEŞEOĞULLARI[1], Serkan YILMAZ[1], Hasan Mansur DURGUN[1], Mahmut YAMAN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Aortic dissection is a cardiovascular emergency that should be diagnosed promptly in patients suspected in emergency departments because of its severe mortality. The most important factors that predispose to aortic dissection are uncontrolled hypertension and atherosclerosis. Patients often present with sudden onset of severe and severe chest or back pain. Abdominal pain, syncope, and neurological symptoms are also common. In this case, we are talking about a case of Aortic Dissection who presented with stomach complaints.

Case: A 45-year-old male patient applied to the emergency service with the complaints of burning in the stomach that started after eating dinner. He also described a nonspecific diffuse mild pain in the chest area. The patient's admission vitals were measured as right arm blood pressure: 212/131 mmHg, left arm blood pressure: 200/116 mmHg, pulse: 92 beats/minute, respiratory rate: 15/minute, oxygen saturation: 97%. He had no known additional disease and regular medication history. There was a family history of hypertension and coronary artery disease. The general condition of the patient was moderate, GCS: 15, conscious, oriented and cooperative. On physical examination, lung sounds were normal and abdominal tenderness on palpation. The patient's ECG showed normal sinus rhythm. In blood tests, WBC was 15 thousand, cardiac enzymes were in normal values, D-dimer: 10.4 . Aortic CT angiography was performed on the patient and a dissection flap was seen starting from the distal aortic arch and reaching the abdominal aorta. The patient, who was diagnosed with type 3 aortic dissection according to the DeBakey classification, was consulted with cardiovascular surgery (CVC). Antihypertensive and antilipidemic treatment was arranged for the patient who was hospitalized in the CVC intensive care unit, and he was discharged six months later with the recommendation of outpatient control.

Conclusions: Many preliminary diagnoses should be kept in mind in patients presenting to the emergency department with abdominal pain. Rapid diagnosis and treatment in aortic dissection with very high mortality is achieved primarily with high clinical suspicion and then with diagnostic imaging. With the emergency cardiovascular surgery consultation after the diagnosis, the survival of the patients increases with surgical or medical treatment and follow-up.

Keywords: Aortic Dissection, Aortic CT Angiography, Stomach Pain

P-140

Interhemispheric Subdural Hematoma After Trauma

Avni Uygar Seyhan[1], Başak Beşir[1], Oğuzhan Açıkgöz[1], Elif Oymak[1], Huda Almadhoun[1], Erdal Yılmaz[1], Nihat Müjdat Hökenek[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Introduction: Interhemispheric subdural hematomas (ISH) are an rare complication of head trauma. Other than trauma, aetiology of the interhemispheric subdural hematomas is consist of intracranial aneurismal ruptures, coagulopathies, anticoagulant therapies, alcohol abuse and "shaken baby syndrome". The most common clinical signs and symptoms associated with an ISH are a lucid interval ,the falx syndrome,contralateral hemiparesis that is accentuated in the lower extremity but spares the face,changing levels of consciousness, focal or generalized seizures, speech disorders, ataxia and oculomotor dysfunction. Nonsurgical treatment should be chosen in patients with little neurologic dysfunction and a stable clinical course. Patients with progressive neurologic deterioration and focal neurologic deficits should be operated on without delay.

Case: Case: a 63-years-old female patient was admitted to emergency department with a fall from chair. She didn't use anticoagulants. Vital signs on admission were stabile. Physical examination: glasgow coma scale: 15 ,direct/indirect pupillary light reflex ++/++ , cranial nerve examination: normal, no motor deficits, in right parietal zone there was subcutaneous edema. The patient diagnosed with breast malignant neoplasm ,HT,DM,HL. laboratory parameter: glucose: 199 hgb: 10,4 hct: 32,8 mcv: 83,5 plt:303. Other parameters, were within normal limitsBrain CT scan showed a subdural hematoma in falx cerebri anterior. The patient hospitalize for clinic observation and conservative management by neurosurgery department

Conclusions: Discussion: Computerized tomography (CT) is the preferred diagnostic procedure.However Interhemispheric subdural haematoma is considered to be rare finding even in the era of computer tomography. Clinical outcome was determined by clinical condition on admission and the presence of haemorrhagic contusions. Another adversive prognostic factors were anticoagulation treatment or the presence of coagulopathy. It is mandatory to stress the possibility of sudden clinical worsening of initially conservatively treated patients. An interhemispheric hematoma, either acute or chronic, is best treated by osteoplastic craniotomy

Keywords: Interhemispheric subdural hematoma after trauma

P-064

A Rare Case Occuring After Drug Use : Drug Related Myocarditis

Mustafa İÇER[1], Sema BELEK[1], Aziz ZİLAN[1], Ercan GÜNDÜZ[1], Hasan Mansur DURGUN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Myocarditis is a clinical condition characterized by inflammation of the heart muscle. Although most of the cases are of viral origin, they may rarely be drug-related.In this case, we examined a patient with a history of antipsychotic drug use due to schizophrenia, who was brought to our emergency department with sudden confusion and general condition disorder.

Case: A 41-year-old female patient was brought to the emergency room with unconsciousness, confusion, and worsening of general condition. The patient's general condition was poor. His vital signs were blood pressure 85/65 mmHg, heart rate: 109/min, fever: 36.9 °C, and oxygen saturation: 98%. The patient's Glasgow Coma Scale was calculated as 9 . ECG was normal sinus rhythm. hsTroponin value was 1056.5 ng/L, CK-MB value was 10.9 ng/ml, and creatine kinase value was 371.1 U/L. The drugs used by the patient were olanzapine, chlorpromazine, and aripiprazole. No acute pathology was detected in the brain tomography, brain diffusion MRI or lumbar punction performed for the patient's confusion. In the echocardiography of the patient, the ejection fraction was measured as 25%, only the basals were contracted and the other regions were seen as global severe hypokinetic. There was no ECG change in the patient's follow-up. Due to the increase in troponin, CK-MB and creatine kinase values, coronary angiography was planned for the patient, no pathology was detected in the coronary angiography of the patient. Drug-related myocarditis was considered after the patient's history, clinical and laboratory evaluations, and exclusion of other diagnoses. The patient was admitted to the cardiology intensive care unit for follow-up and treatment.

Conclusions: In partıcular , patients with a history of antipsychotic use, who will present withclinical conditions ranging from isolated chest pain to worsening of the general condition should be followed up by cardiac enzyme , echocardiography and ECG and if a pathological condition is detected in these patients , the diagnosis of drug-associted myocarditis should be considered.

Keywords: Drug, Myocarditis, inflammation, ECG

P-107

FROM ECG TO SUBARACHNOİD HEMORRHAGE

İnan BEYDİLLİ[1], Fırat GÜNEŞ[1], Serkan KARAKULAK[1], İbrahim AKÇA[1], Yücel YÜZBAŞIOĞLU[1], Zikret KÖSEOĞLU[1]

[1]Mersin Şehir Eğitim Ve Araştırma Hastanesi

Background and aim: Subarachnoid haemorrhage is an uncommon type of stroke caused by bleeding on the surface of the brain. It is a very serious condition and can be fatal .Electrocardiographic changes are approximately seen in %50 of the patients with subarachnoid hemorrhage. Autonomic neural stimulation from the hypothalamus or elevated circulating catecholamines are held responsible for this changes

Case: A 47-year-old female patient, who was normal when she woke up in the morning, suddenly fell while taking a bath. Afterwards, she was noticed by her husband and brought to the emergency room by 112. The patient's history was unremarkable. In the blood gas, pH: 7.36, pCO2: 43.5, HCO3: 24.1, lactate: 4.0. There was an increase in QTc (474 ms) , QRS prolongation(QRS: 150 ms), ST elevation, and negative T waves in her ECG . The patient with Glasgow coma scale: 3 was intubated. There was subarachnoid hemorrhage in the brain computed tomography. The patient was admitted to the intensive care unit after neurosurgery consultation.

Conclusions: Subarachnoid hemorrhage, one of the differential diagnoses that should be considered in patients with trauma and altered consciousness, is an important cause of morbidity and mortality. ECG can be stimulating because of the changes that can be seen in patients with suspected subarachnoid hemorrhage.

Keywords: Subarachnoid hemorrhage, Electrocardiography, Mortality

P-050

Interesting Case of Stones Due to Long-Term Double-J Catheter

Yücel YÜZBAŞIOĞLU[1], Süleyman SÖKER[1], Mehmet CANACANKATAN[1], İnan BEYDİLLİ[1], Zikret KÖSEOĞLU[1]

[1]Mersin Şehir Eğitim Ve Araştırma Hastanesi

Background and aim: The Double-J urinal stents are commonly used in cases such as urinary stone surgeries, extracorporal shock wave lithotripsy, genitourinary traumas, renal transplantations, renal constructive surgeries, pregnancies, urinary stone diseases and urinary obstructions. Cases of petrifications, stent ruptures, stone formations, urinary infections, sepsis, renal failure and even death due to stents that remain in the urinary system for longer than normal or are forgotten have been reported in the literature.

Case: A 73-year-old male patient presented to our emergency department after seeing a stone in his ureterostomy mouth. In the patient's medical history, it was learned that he had undergone cystectomy and urinary diversion surgery for bladder cancer 15 years ago and a Double-J stent was inserteed due to postrenal acute kidney failure 8 months ago. In his physical examination, two ureteral catheters and stones on the catheter were observed just under the skin at the ileostomy outlet in the lower right quadrant. Active urine output of the patient was contiuning. Laboratory results were creatinine 1.6mg/dL, blood urea 71mg/dL, GFR 41, CRP negative, Procalsitonine negative, Hemoglobine 12.8g/dL and 209 erythrocytes, 205 leukocytes were spotted in patients urinalysis. On non-contrast abdominal CT, opacities of different sizes and shapes were observed in the distal part of the stent within 10 cm range.(Figure-1). The catheter was with the Stones in a sterile manner by the consultant urology physician and he was discharged with the recommendation of theoutpatient clinic.(Figure-2)

Conclusions: In our case, due to patient not having a bladder, Stones were formed as rosary beads distal to the ureter. It is seen that complications increat with the duration of Double-J stents in the body. Therefore, ureteral stents should ge removed from the body as soon as possible.

Keywords: Double-J, Stone, Urinary

P-048

A RARE CAUSE OF ABDOMİNAL PAİN : WILKIE'S SYNDROME

İnan BEYDİLLİ[1], Fırat GÜNEŞ[1], Yücel YÜZBAŞIOĞLU[1], Zikret KÖSEOĞLU[1]

[1]Mersin Şehir Eğitim Ve Araştırma Hastanesi

Background and aim: Superior mesenteric artery syndrome (Wilkie Syndrome) is a rare condition that occurs as a result of compression of the third part of the duodenum between the aorta and the superior mesenteric artery. It is a rare syndrome seen with complaints of abdominal pain, bloating, nausea and vomiting associated with weight loss. Symptoms can be acute or chronic.

Case: An 83-year-old male patient, who had no known disease and no medication, was admitted with the complaint of abdominal pain. The patient had insomnia, weakness, sweating, oral intake disorder, nausea which increased when lying down for 1 week and lost approximately 9 kg in 2 months. The patient was smoking 1 pack/day. The patient had not used alcohol for 5 years. On physical examination, the abdomen was distended. In laboratory tests, lipase was found to be 151 U/L (0-78), amylase was 128 U/L (30-118), CRP was 4.17 mg/dl (0-0.8). The patient's non-contrast upper abdominal computed tomography was reported as the gastroesophageal junction was located in the intrathoracic position (sliding hernia?), the stomach was full and had a ptotic appearance, the gallbladder had a hydropic appearance, the abdominal aorta was 40 mm in its widest part at the infrarenal level and showed aneurysmatic enlargement. The patient was evaluated as Wilkie's syndrome by the general surgery consultant. Nasogastric tube applied. Approximately 3500 cc of gastric contents were evacuated. The patient was relieved. Hospitalization was recommended by the general surgeon, but the patient refused and left the hospital.

Conclusions: Superior Mesenteric Artery Syndrome should be considered in the differential diagnosis of patients presenting to the emergency department with complaints of nausea, vomiting, rapid weight loss, and bloating after meals.

Keywords: Wilkie Syndrome, duodenum, emergency

P-057

Acute Limb Ischemia

Şeyma Sarı[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], İzzet Ustaalioğlu[1], Mukaddes Kübra Melemez[1], Muhammed Masum Kurt[1]

[1]Kartal Lütfi Kırdar Şehir Hastanesi

Background and aim: Acute limb ischemia is defined as a quickly developing or sudden decrease in limb perfusion, usually producing new or worsening symptoms or signs, and often threatening limb viability.The incidence of acute peripheral arterial occlusion causing acute lower extremity ischemia is approximately 1.5 cases per 10,000 persons per year. The clinical presentation depends upon the etiology and whether the patient has underlying peripheral artery disease.

Case: A 24 years old male patient was admitted to the emergency department with a complaint of pain in the right leg for 4 hours.There was no history of trauma. Vital signs on admission were as follow:BP 130/75, bpm 80, fever 36, spO2 95%. Known diseasesare chronic pericardial effusion, nonobstructive hypertrophic cardiomyopathy. Physical examination of the patient: pulselessness in the a. dorsalis pedis, paralysis poikilothermia, and pain of the right leg.Other system findings werenormal.CDUS reported that "No flow was observed with CDUS ın the popliteal artery and its distal.Popliteal artery lumen appears hypoechoic(acute arterial thrombosis?)". 6000 anti-Xa IU/0.6 ml was administered. In ECHO reported "Normal LV systolic functions 55%.Nonobstructice hypertrophic cardiomyopathy.Grade 1 diastolic dysfunction.Pericardial effusion(localized near the lateral and posterior wall, the largest wide diastole 27 mm in diameter fluid was observed. No signs of tamponade).The patient consulted to cardiovascular surgery and taken percutaneous intervention.

Conclusions: Most of the causes of acute limb ischemia are thrombosis of a limb artery or bypass graft, embolism from the heart or a diseased artery, dissection, and trauma. The sudden and dramatic development of ischemic symptoms in a previously asymptomatic patient is most consistent with an embolus. Patients with an extremity embolus can frequently pinpoint the exact time that symptoms began. The six Ps (pain, pallor, poikilothermia, pulselessness, paresthesia, paralysis) are the classic presentation of acute arterial occlusion in patients without underlying occlusive vascular disease.If suspected based on history and physical examination, heparin should be administered and vascular surgery consulted.Prompt diagnosis and revascularization using catheter-based thrombolysis or thrombectomy and by surgery reduce the risk of limb loss and mortality.

Keywords: ischemia, embolism, thrombosis

P-117

A Case of Dissociative Amnesia in Emergency Department

Aybüke Soylu[1], Bedriye Müge Sönmez[1]

[1]Dışkapı Yıldırım Beyazıt EAH

Background and aim: Dissociative amnesia is one of the three dissociative disorders listed under the DSM-V and is often considered as the most common of the dissociative disorders.(1) The term retrograd amnesia usually includes to both psychogenic and organic elements(2) Dissociative amnesia mostly indicates a psychogenic situation.(2) For an emergency clinician dissociative amnesia diagnosis is usually chosen after excluding quite a lot of other organic pathologies. In this case report, we aim to show the diagnostic process of such patient.

Case: The patient is 37-year-old, female, was brought to our hospital by her husband. She had no previous history of mental illness, internal disease and drug-alcohol use. She was brought with a chief complaint is having a deficit in her short term memory and limp in speech. On her presentation, she was disturbed and physically aggressive towards her husband. No findings were found on pyhsical examination. We did not detect a pathological findings in laboratory tests (cbc, liver-kidney function tests, serum electrolytes) and imagings(diffusion mri and brain ct).

Conclusions: Dissociative amnesia is often related with a psychogenic condition or a powerful stressor. Psychogenic conditions include; post traumatic stress disorder, depression, anxiety disorders, sleep disorders, personality disorders and drug-alcohol abuse. Power stressor or traumatic events in patient's life also contribute dissociative amnesia. Rarely in some patients dissociative amnesia is associated with organic pathologies like migraine or malignancy(3,4). Our patient haven't had any psychogenic disorders or stress factors contributing this event and this report aims to show that dissociative amnesia may occur idiopathically.

Notes (Optional): 1.Coons P. The dissociative disorders: Rarely considered and underdiagnosed. Psychiatr Clin North Am 1998;21(3):637–48. 2.Markowitsch HJ, Staniloiu A. Functional (dissociative) retrograde amnesia. Handb Clin Neurol. 2016;139:419-445. doi: 10.1016/B978-0-12-801772-2.00036-9. PMID: 27719861.3.Lucchelli F, Spinnler H. The "psychogenic" versus "organic" conundrum of pure retrograde amnesia: is it still worth pursuing? Cortex. 2002 Sep;38(4):665-9. doi: 10.1016/s0010-9452(08)70033-9. PMID: 12465679.4.Kopelman MD. Focal retrograde amnesia and the attribution of causality: An exceptionally critical view. Cogn Neuropsychol. 2000 Oct 1;17(7):585-621. doi: 10.1080/026432900750002172. PMID: 20945196.

Keywords: Dissociative amnesia, amnesia, emergency department

P-076

THE IMPORTANCE OF DYNAMIC ELECTROCARDIOGRAPHIC CHANGES

Atakan Aydoğan[1], Mustafa Tolga Özdal[1], Umut Ocak[1], Mehmet Oğuzhan Ay[1], Melih Yüksel[1], Halil Kaya[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Especially patients with diabetes can admitted to emergency department (ED) with non-specific cardiac complaints. According to the ESC 2020 guidelines, if these patients do not have a diagnosis of acute ST-elevated MI, but have any of the criteria for a diagnosis of NSTEMI, dynamic or possibly new adjacent ST-T segment changes suggestive of ongoing ischemia, transient ST-segment elevation, GRACE risk score >140, early 24 hours invasive strategy is recommended for these patients. Patients with possible cardiac complaints should be followed up with frequent ECG monitoring to detect dynamic changes.

Case: A 48-year-old female patient presented to the ED with nausea, vomiting and a sore throat that started 15 minutes before she was admitted to the ED. He had known diabetes mellitus (DM). There was no smoking. There was no family history of coronary disease. In her examination, she was conscious, GCS 15, heart rhythmic normocardic, bilateral lungs were normal on auscultation, abdomen was relaxed, and there was no rebound defense. The first ECG of the patient was normal. In her ECG taken 15 minutes later, there was 0.5 mm ST segment elevation in D2, D3, aVF leads and 0.5 mm ST segment depression in aVL. The patient was consulted to Cardiology because of dynamic ECG changes. The patient was admitted to the coronary intensive care unit and underwent coronary angiography. In the coronary angiography of the patient, the proximal RCA was totally occluded, 70-90% stenosis in Circumflex OM1, and osteal plaques in the LAD (D1 70-90%, MID 50-60%).

Conclusions: Patients with chronic diseases such as DM should be questioned and examined in detail in terms of acute coronary syndrome. An initial normal ECG or an ECG in which no dynamic changes are observed is not sufficient to exclude ACS. In patients with a normal initial ECG, if symptoms persist, a control ECG should be performed at frequent intervals until other diagnostic tests rule out ACS. Compare the new ECGs of the patients with the old ones, if any. A normal ECG may be associated with left circumflex or right coronary artery occlusions and posterior wall ischemia, which is often 'electrically silent'.

Keywords: emergency department, acute coronary syndrome, ST-elevated MI

P-034

A Forgotten Diagnosis in the Emergency Department: Adult Still's Disease

Salih Fettahoğlu[1], Yavuzselim Koca[1], Süreyya Tuba Fettahoğlu[1], Vildan Avcu[1], Utku Murat Kalafat[1], Serkan Doğan[1]

[1]Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

Background and aim: Adult Still's Disease (ASD) is a systemic connective tissue disease of unknown etiology, characterized by fever, rash and joint findings. The disease may present with high fever alone, without typical skin rashes and joint findings. ASD has no pathognomonic laboratory findings. It is important to exclude infections, neoplasms and other systemic diseases that may have similar clinical findings in the diagnosis. Here, we wanted to talk about our adult still's disease, which is a rare disease in the diagnostic emergency department who presented with fever and skin rash.

Case: 33-year-old woman presented to our emergency department with intermittent fever, malaise and a rash that started under the neck for the last 2 days. He had no known history of disease. The patient's rashes increased with fever and decreased when fever decreased. He has had widespread joint pain and difficulty in movement for the past 2 days. In his vital signs, body temperature was 38 degrees and there was no other abnormality. On physical examination, the oropharynx was found to be hyperemic. Conscious, oriented and cooperative, no neck stiffness. Breath sounds were normal. WBC 13 thousand (mcl) in laboratory examinations. CRP 224mg/L. Procalcitonin 3,5 µg /L .TIT leukocyte +. Brucella and viral serology, blood culture and urine culture were studied for the purpose of preliminary infectious diagnosis. No pathology was detected in the results. No vegetation was found in the bedside ECO. Since the patient had a rash that increased with fever and was accompanied by sore throat, he was admitted to the internal medicine service with a preliminary diagnosis of adult still disease for further examination and treatment.

Conclusions: ASD is a very rare, systemic inflammatory disease. With this case, we wanted to remind that it should not be forgotten that ASD may be present in patients who have repeated admission to the emergency department with fever and no obvious infectious pathology has been detected in their examinations and who have not received a specific diagnosis.

Notes (Optional): It is a difficult disease to diagnose because the disease has no pathognomonic findings, presents with systemic findings, and is confused with many other systemic diseases.

Keywords: Adult Still's Disease, fever, rash, joint findings

P-102

ACUTE ISCHEMIC STROKE DEVELOPED IN A PATIENT AFTER ENDOSCOPY

Feyzullah Faruk Seçkin[1], Mehmet Oğuzhan Ay[1], Tuncay Kuş[1], Umut Ocak[1], Melih Yüksel[1], Halil Kaya[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Stroke may be due to bleeding (hemorrhagic) or cerebral vascular occlusion (ischemic). Ischemic strokes account for approximately eighty percent of all cases. Atherothrombosis, embolism, hypoperfusion, vasculitis, arterial dissection and venous thrombosis may play a role in the etiology of ischemic stroke. The main treatment methods applied are intravenous thrombolysis and mechanical thrombectomy. When IV thrombolytic therapy is started within the first 4.5 hours of acute ischemic stroke and mechanical thrombectomy is performed within the first 6 hours of acute ischemic stroke, efficacy and safety are proven treatments. In this report, a case of acute ischemic stroke that developed in a patient who underwent endoscopy with the suspicion of acute upper gastrointestinal bleeding is reported.

Case: A 79-year-old female patient applied to our emergency department with the complaints of bloody vomiting for 2 days and then she said that she stopped using coraspin for 2 days. The patient had a history of hypertension, COPD, and congestive heart disease. Her general condition was moderate, she was conscious, and her vital signs were stable. The rectal examination of the patient was normal. Approximately 50 cc of dark red liquid came from the nasogastric tube. Hydration and PPI infusion were started. Her initial hemoglobin was 12 g/dL. The patient underwent endoscopy. The patient's endoscopy was reported as "erythematous gastritis and no active bleeding". After the endoscopy, the patient's speech was heavy-difficulty and her general condition deteriorated, and her neurologic examination was repeated and her consciousness was lethargic, bilateral pinpoid pupils in the eyes, dysarthric, asthenic, partially cooperative, and left 4/5 hemiparesis were detected. Diffusion MRI revealed acute infarction in bilateral cerebellum, vermis and right pons. On CT Angiography, acute thromboembolism was detected in the bacillary artery and endovascular treatment was planned for the patient. The patient, who was processed under general anesthesia, was admitted to the stroke center for follow-up after the successful endovascular treatment procedure.

Conclusions: Acute stroke cases can be seen very rarely or coincidentally after endoscopy. During patient follow-up in the emergency department, new findings should be detected with repeated examinations, if necessary, additional tests and treatments should be performed.

Keywords: acute ischemic stroke, endoscopy, endovascular treatment

P-033

A Case Of Tetanus In The Er

Merve Nihal Akpınar[1], Sebahat Sağlam[1], Özge Coşan Baş[1], Asım Kalkan[1]

[1]Prof. Dr. Cemil Taşcıoğlu Şehir Hastanesi

Background and aim: In the 21st Century, tetanus has become a rare nervous system disease, generally characterized by painful muscle spasms. The causative agent is known to be toxins produced by Clostridium tetani, a bacteria most commonly found in soil.While rare, tetanus remains a threat to unvaccinated people, as C. tetani spores are impossible to eliminate in all environments. Appropriate vaccination schedules for immunization, prophylaxis and wound management are cornerstones of dealing with this disease. In this presentation, we want to emphasize that while rare, tetanus cases can still occur, and emergency departments are the first line of defence when it comes topreventing this disease

Case: A 44-year-old male patient, with no known diseases and drug usage presents to our Emergency Department with a ten-cm cut on his right forearm done with a kitchen knife on the right flexor zone. The patient claimedto have had a tetanus booster vaccine three years ago. An exploration of the wound site shows cuts through D2, D3, and D4 FDS muscle-tendon sites, while the ulnar and radial arteries are intact. Tendons were repaired; accordingly, the skin was sutured, a short forearm cast was used for wound stabilization, and appropriate antibiotic prophylaxis was recommended, with a routine follow-up of 14 days to remove the sutures. The patient presents one week after the cut with recently starting complaints of generalized body rigidity, neck rigidity, being unable to talk and hyperextension of the head and neck. Blood results obtained in the emergency department are concluded as normal, including CK, WBC and CRP. The patient is then consulted with the Infectious Diseases Department with the primary diagnosis of tetanus based on clinical presentation and internalized to the ICU for follow-up treatment.

Conclusions: Tetanus is a serious nervous system disease of infectious origin and should be treated as such. The most important way to manage tetanus is disease prevention, as the majority of people that survive tetanus continue life with serious morbidities and reduced quality of life. With this case, we wanted to emphasize the importance of proper prophylaxis and its importance in keeping severe diseases like tetanus rare.

Keywords: tetanus, infectious diseases, emergency medicine, prophlaxis

P-131

LITHIUM INTOXICATION

Adem Samet Erbir[1], Mehmet Oğuzhan Ay[1], Tuncay Kuş[1], Murat Ersal[2], Melih Yüksel[1], Umut Ocak[1], Halil Kaya[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye
[2]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Anesthesiology and Reanimation, Bursa, Türkiye

Background and aim: Lithium is a drug with a very narrow therapeutic index and a high potential for toxicity. Most patients may experience toxicity at some time during lithium maintenance therapy. In chronic use, renal side effects such as natriuresis and nephrogenic diabetes insipidus may occur, whereas in acute toxicity, gastrointestinal, cardiovascular and neurological symptoms may occur. The aim of the treatment of lithium intoxication is to remove the toxin from the body. There is no specific antidote. On the other hand, hemodialysis is a suitable option in patients with severe symptoms, especially neurological symptoms. In this case report, we aimed to draw attention to lithium intoxication in cases presenting with acute gastrointestinal system, renal and neuropsychiatric symptoms.

Case: A 51-year-old female patient was brought to the emergency service with complaints of diarrhea for 10 days and sleepiness for 2 days. The patient has known bipolar disorder and hypothyroidism. The drugs she used were sodium valproate, lithuril, sertraline, clozapine, perindopril, levothyroxine, propranolol. The patient had hyperreflexia, drowsiness, fine tremor, ataxia and her cooperation was limited. Although she had vague abdominal pain, she did not show tenderness and defense. The patient was started on hydration and acyclovir 3*750 mg was started with a preliminary diagnosis of encephalitis. Brain tomography and cranial diffusion MRI were performed to rule out central mass and hippocampal ischemia. No additional pathology was found. As the patient's later blood results showed that she had stage 1 acute renal failure, lithium intoxication was also considered, and lumbar puncture was performed to rule out encephalitis. No leukocytes were seen in the CSF fluid cell count in the lumbar puncture. CSF Protein and CSF glucose levels were at normal levels. Lithium intake level of the patient was 2.89 mg/dl (N: 0.6-1.2) and the patient was evaluated as moderate lithium intoxication. The patient was admitted to the intensive care unit.

Conclusions: Our case had diarrhea, drowsiness, fine tremor, and hyperreflexia suggestive of lithium intoxication. In such patients, total fluid volume is of vital importance in order to preserve renal functions. In conclusion, caution should be exercised in terms of toxication in patients receiving lithium treatment.

Keywords: Lithium, intoxication

P-118

Drug Induced Tardive Dyskinesia

Başak Beşir[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Ergül Kozan[1], Nihat Müjdat Hökenek[1], Servan Velat Bilgeç[1], Oğuzhan Açıkgöz[1]

[1]Kartal Dr Lütfi Kırdar Şehir Hastanesi

Background and aim: Tardive dyskinesia (TD) is a medication-induced movement disorder that causes involuntary,repetitive body movements such as facial tics and lip-smacking associated with the use of dopamine receptor-blocking agents, including antipsychotic drugs and two antiemetic agents, metoclopramide and prochlorperazine."Tardive" means delayed or late. "Dyskinesia" refers to involuntary muscle movements. Most people take a medicine for years before developing the disorder. The risk of drug-induced Tardive Dyskinesia is estimated to be approximately 5% per year and may be higher in the elderly. Prevalence is estimated at approximately 20% of psychiatric patients undergoing long-term treatment. TD is less common as a side effect of using short-term and low-dose antipsychotic. The reported case show this rare TD which occur in a young patient after taking 20mg haloperidol at once.

Case: A 25 years old man has presented at emergency service complaining of involuntary and repetitive movement of his neck. Apart from this, he suffered from drowsiness, blurred vision and dry mouth. Unisom (doxylamine) was prescribed three weeks ago by a psychiatrist due to his sleeping disorder. In addition, one night before his admission he took Norodol (haloperidol) drops for the first time as a suggestion from his pharmacist friend. When he admitted to hospital his vital signs were normal. GCS was 15. On his neurological examination, he has no signs of motor and sensory deficits or lateralizing finding. His neck was moving from neutral position to right side. In addition involuntary oro-facial movements was noted. All findings and history were consistent with drug induced tardive dyskinesia. Therefore, 5mg benzodiazepine was administrated to the patient. In spite of 15mg benzodiazepine, his complaint did not reduced. The patient was referred to a psychiatrist. After giving 5mg Biperiden as a suggest of psychiatrist, his symptoms alleviated.

Conclusions: Tardive dyskinesia is a clinical diagnosis,there are no special tests or imagining methods,the most important thing to recognize TD is suspect. Therefore, a detailed history is essential for every patient who admitted to E&R with movement disorder. Using haloperidol together with doxylamine may increase side effects such as drowsiness, blurred vision,dry mouth,heat intolerance, flushing, decreased sweating,difficulty urinating,abdominal cramping,constipation,irregular heartbeat,confusion and memory problems.

Keywords: tardive dyskinesia, haloperidol, antipsychotic, drug, side effect

P-026

Botulinium Toxicity

Şerife Gül Gündüz[1]

[1]Kartal Lütfi Kırdar Eğitim Ve Araştırma Hastanesi

Background and aim: Botulinium toxin is a neurotoxin produced by Clostridium Botilinium and leads to muscle paralysis by inhibiting acetylcholine secretion at the axon terminal of the presynaptic cleft on the neuromuscular junction. Botox causes paralysis or a decrease in the muscle activity by causing partial chemical degradation Though its duration of effect varies, Botulinium toxin's effect lasts 3 to 6 months depending on the individual's muscle use. Although the incubation period of the toxin is 18 to 36 hours, the clinical effect shows up around 3 to 7 days It is used in many areas such as overactive bladder, excessive sweating, migraine, strabismus. Clinical findings include blurred vision, diplopia, nystagmus, ptosis ,dysphagia, weakness in the facial muscles With the influence of cholinergic autonomic nervous system, dry mouth, ileus, urinary retention, abdominal pain, nausea-vomiting, diarrhea.

Case: A 26-year-old female patient presents to the emergency department with complaints of dizziness, weakness, droopy eyelids, numbness in the fingers, and difficulty in swallowing. She had botox done to prevent sweating in his palms and underarms. Three days after she had it done, her complaints started to develop. She has no chronic disease in his history. Vital signs on admission were as; blood pressure: 112/74 mm/Hg , pulse: 85 / min and sO2: 98% fever: 36,1 C . On physical examination ; Muscle strength on both thumbs 4/5 muscle strength on the other fingers and extremities 5/5.there is a bilateral minimal eyelid drop. Other neurological examination findings were normal. Other system examinations were normal. Leukocytes 7,910 mm3 CRP: 0,70 mg/L. liver and Other parameters, including renal function tests, were within normal limits. No pathology was detected in brain tomography and diffusion MRI results. The patient was hospitalized for infectious diseases in order to be given the antidote botilinium.

Conclusions: Botulism should always be included in the differential diagnosis of a patient as early diagnosis could be critical in the management and, eventually, the prognosis of an affected patient. Due to advances in medicine, it has become treatable and manageable but still poses a huge health problem due to its severity.

Keywords: botulism

P-154

Purple Urine Bag

Mustafa İÇER[1], Mehmet Umut Gülmezler[1], Aziz ZİLAN[1], Ercan GÜNDÜZ[1], Hasan Mansur DURGUN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Purple bladder syndrome (PBS) is a rare clinical condition characterized by the interaction of indigo (blue) and indigo (red) pigments, which are released by tryptophan metabolism due to bacterial colonization in the urinary catheter, with polyvinyl chloride containing material. Urine color is a result of urochrome concentration, which varies depending on the pigments present, and is a valuable guide in many important clinical situations such as the presence of infection, the effects of drugs used, poisoning and hemolysis. It is generally thought that female gender, the use of a urinary catheter for a long time, the presence of alkaline urine, constipation and chronic kidney failure are thought to be the causative factors.

Case: An 86-year-old male patient was admitted to our emergency department with complaints of worsening general condition, impaired oral intake, dyspnea and constipation. The patient had a history of chronic kidney disease, neurogenic bladder, immobility and continuous urinary catheterization. On physical examination, the general condition of the patient was poor, consciousness was confused, GCS 12, blood pressure 90/40, pulse 112, body temperature 38.3, Oxygen Saturation 76, respiratory sounds decreased bilaterally at baseline. There was diffuse abdominal tenderness, fecalitis on rectal touch, and purple urine in the urinary bladder. There were WBC 18 in the hemogram, 95% in Neutrophil dominance, CRP 157, Urea 53, Creatinine 2.91, leukocyte +++, Erythrocyte + in urine culture, more than 3 bacterial growth in urine. In the urinary system USG, both kidney parchyma echogenicity grade II increased. On thorax CT, there was a 9 cm effusion in the right pleura and minimal effusion in the left pleura. No acute pathology was detected in brain CT. The patient was consulted to the relevant departments. He was admitted to the intensive care unit with a preliminary diagnosis of urosepsis.

Conclusions: PBS is a rare form of urinary tract infection in the elderly with constipation and a history of chronic catheterization. PBS is a rare clinical picture that should be considered in terms of diagnosis and proper management of urinary tract infections. Although it has a good prognosis and is easily treatable, it can cause serious life-threatening consequences.

Keywords: Purple Bladder Syndrome, Urinary Tract İnfections, Alkaline Urine

P-020

Pnomomediastinum

Emrah Cengizhan Medeni[1], Cemil Kavalcı[1], Gizem Akçın[1]

[1]Antalya eğitim ve araştırma hastanesi

Background and aim: Pneumomediastinum is the presence of air or gas in the mediastinum. It usually occurs in the presence of underlying lung disease such as asthma or chronic obstructive pulmonary disease (COPD) or it is related to precipitating factors such as trauma, invasive procedures (cervical, thoracic or abdominal), tracheobronchial or bronchoesophageal fistulas, Valsalva maneuver, positivepressure mechanical ventilation, cough, vomiting, physical exercise or use of inhaled drugs. We present a case of pneumomediastinum with subcutaneous emphysema in a man with history of drinking alcohol who presented to the emergency room with throat pain and odynophagia.

Case: 23 year-old came to the emergency department for throat pain. The patient had no medical history. The patient reported that before the symptoms started, he had some alcohol but not more than usual and he vomit a few times. The psycihal exam showed crepitation starting from his neck zone to thorax. X-ray showed subcutaneous emphysema at the cervical level then a thorax CT planned for the patient. CT showed us the patient had paratracheal and paraesophageal free air.

Conclusions: Throat pain usually makes us think about upper respiratory tract infections. But we always should always think about other possible diagnoses and we should always do a detailed psyhcal exam when we suspect other diagnoses

Keywords: Pneumomediastinum, case report

P-027

THE IMPORTANCE OF ANAMNESIS IN THE EMERGENCY DEPARTMENT, A CASE OF CRİMEAN-CONGO HEMORRHAGİC FEVER (CCHF)

Alperen Şahin[1], İbrahim Altundağ[2], Mustafa Oğuz Alp Çelik[1], Burcu Genç Yavuz[1], Şahin Çolak[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Crimean-Congo Hemorrhagic Fever(CCHF) is a vectorial, zoonotic disease caused by nairoviruses of the Bunyaviridae family.It's an infectious emergency with high mortality transmitted by ticks.CCHF s characterized by symptoms such as fever, malaise, loss of appetite, muscle pain, headache, nausea-vomiting, diarrhea and bleeding in serios cases.Incubation usually takes place within 1-3 days (max. 9 days) with tick bite and 5-6 days (max. 13 days) as a result of contact with infected blood, body fluid or other tissues.Due to its high mortality and non-specific symptoms, it imposes increased responsibility on emergency physicians in the diagnosis-treatment process.

Case: A 37-year-old male patient without any known disease or drug use was admitted to the emergency department with complaints of diffuse muscle-joint pain,hyperemia in the conjunctiva and fever that occasionally rising to 39°C.He stated that he had a tick bite in Gümüşhane a week ago, but was discharged with only tetanus vaccine.Fever: 37.5oC and the other vital parameters were normal.There wasn't any pathology in laboratory tests except for c-reactive protein 24mg/dl.The platelet count was 400,000/uL. There wasn't bleeding diathesis or bleeding-related symptoms.There weren't any symptoms or physical examination findings suggesting a different infection focus.Symptomatic treatment was initiated and the patient was admitted to the infectious diseases department with a preliminary diagnosis of CCHF.CCHF PCR test (+) was detected and platelet decrease (PLT: 70.000/uL) was seen during the follow-ups.The patient was accepted as pre-hemorrhagic stage CCHF and intravenous ribavirin treatment was started.

Conclusions: CCHF incidence increases especially in rural areas during summer months.In patients who started with fever, myalgia and admitted to the hospital with non-specific symptoms; both domestic and international travel history and possible animal bite exposure should be questioned.It should not be forgotten that the most important step in the diagnosis of the disease is clinical suspicion, detailed anamnesis and physical examination.

Keywords: Crimean-Congo Hemorrhagic Fever(CCHF), zoonotic disease, CCHF, nairoviruses, tick

P-095

A RARE CASE OF PARAPLEGIA IN THE EMERGENCY: SPINAL MASS

Meltem KAMİLOĞLU[1], Raziye Rabia ÖZDEMİR[1], Özgür Tan ALADAĞ[1], Suna ERAYBAR[1], Mehtap BULUT[1]

[1]University of Health Sciences Turley, Bursa City Hospital Emergency Department

Background and aim: Spinal masses are rare tumoral lesions. It can cause symptoms such as monoparesis, paraparesis, stool/urinary incontinence and pain. MRI a fundamental role in the detection of masses. We aimed to present a case of spinal mass in a patient who came to our emergency department with paraparesis and urinary incontinence

Case: A 48-year-old male patient had weakness in his legs and occasional falls while walking for the last 1 year. In the last 2 weeks, the weakness in his legs has increased and he has 2 times urinary incontinence. No additional disease. There is no medicine he is using. When he came to the emergency department, his vital signs were measured as blood pressure 130/90 mmHg pulse: 96/min fever: 36.7 °C spO2: 98 and blood glucose: 154. ECG was evaluated as normal sinus rhythm. In the neurological examination of the patient, paresis of 1/5 of the proximal muscles of the left lower extremity and 2/5 of the proximal muscles of the right lower extremity and bilateral lower extremity deep tendon reflexes were found to be hypoactive. Lower extremity circulatory examination was normal. No acute pathology was detected in the brain computed tomography and diffusion MRI performed to rule out cerebrovascular disease in the patient. Since the patient had proximal muscle weakness and urinary incontinence, thoracic lumbar spinal MRI imaging was performed with the preliminary diagnosis of thoracic pressure and transverse myelitis. In the thoracic lumbar spinal MRI, a mass lesion causing obstruction in the spinal canal was detected at the T11-T12 level. The central canal was enlarged at the level of the T9-T10 vertebral bodies. The patient was admitted to the neurosurgery service for follow-up and treatment with the diagnosis of a thoracic spinal mass.

Conclusions: A spinal mass, albeit rare, should be considered in a patient who comes to the emergency department with paresis that progresses within days. Spinal pathologies should be kept in mind when we do not see any pathology in central imaging.

Keywords: Spinal mass, paraparesis, urinary incontinence, emergency department

P-060

Batında pulsasyon ile gelen hastada icd dislokasyonu

Yusuf Cemil Oktay[1], Engin Deniz Arslan[1], Burçin Akgün[1], Görkem Kuş[1], Muhammed Rıdvan Ersoysal[1]

[1]Antalya Eğitim ve Araştırma Hastanesi

Arka plan ve amaç: Özellikle son 1 ay içinde İCD takılan hastalarda acil servise, pacemaker ile ilişkili olabilecek geliş sebeplerinden birini göstermek, tanı ve tedavisinin yönetiminde yardımcı olmak

Vaka: 63 yaşında hasta yeni başlayan karın ağrısı ve karın duvarında seğirme hissi ile acil servisimize başvurdu. Hikayesinde, malign ventriküler aritmileri önlemek için bir ay önce implante edilebilir kardiyoverter-defibrilatör (ICD) implante edildiği öğrenildi. QRS kompleksleriyle ilgisi olmayan, hızlı ve tekrarlı elektriksel uyarım gösteren bir elektrokardiyogram elde edildi. Hastaya ICD lead'i yerinden oynama teşhisi kondu ve lead başka bir prosedürde yeniden konumlandırıldı.

Kararlar: Sonuç olarak, acil hekimleri implante edilebilir kalp cihazlarının sorunlarına aşina olmalıdır.

Anahtar Kelimeler: İCD, EKG, pulsasyon

P-129

Mad Honey Intoxication

Rabia Birsen Tapkan[1], Onur Çığşar[1], Süreyya Tuba Fettahoğlu[1], Ümran Arasan[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Mad honey poisoning occurs due to the consumption of grayanotoxin in the honey produced by the bees fed in the region with the flowers of "Rhododendron ponticum" and "Rhododendron luteum". It is seen especially in the Eastern Black Sea region in our country. Toxicity symptoms resulting from the intake of mad honey can be observed independent of the dose. Typical signs of poisoning; gastrointestinal tract irritation, arrhythmia and neurological symptoms. These symptoms include redness of the skin and eyes, burning in the throat, nausea, vomiting, hypersalivation, weakness, visual impairment or temporary blindness, headache and dizziness, abdominal pain, gastroenteritis, urinary and stool incontinence, bradycardia, hypotension, hyperexcitability, delirium, coma. . The symptoms begin abruptly after ingestion of honey and rarely last more than 24 hours.

Case: A 40-year-old male patient was admitted to our emergency department with complaints of nausea, vomiting, and abdominal pain. In the first evaluation, the general condition of the patient was good, conscious, oriented, cooperative, arterial blood pressure was measured as 100/60 mmHg, and the pulse rate was 54. On physical examination, dryness of the mucous membranes, redness of the eyes, headache, and abdominal pain were present. The patient was taken to the security circle and followed up in the red area. Sinus bradycardia was detected in the electrocardiogram of the patient (Picture 1). In the electrocardiographic examination, the ejection fraction was found to be normal and no structural heart disease was observed. It was learned that he had indigestion in his history and therefore ate 3 spoons of honey from the Eastern Black Sea region, and his complaints started 1 hour after he ate honey. The patient was started on treatment for symptomatic bradycardia and referred to a center with coronary intensive care unit.

Conclusions: Due to the increase in the use of natural products, an increase in mad honey intoxication can be seen in recent years. Especially in regions where mad honey poisoning is common, mad honey poisoning should be considered in patients who apply to the emergency department with rhythm disturbance, gastrointestinal system, and neurological system complaints.

Keywords: intoxication, bradycardia, mad honey, arrhythmia

P-036

Akut Pankreatit Sonrası Gelişen Abdominal Kompartman Sendromu

İlker Şirin[1], Murat Özdemir[2], Bedriye Müge Sönmez[1], Gülşen Çığşar[1]

[1]Dışkapı Yıldırım Beyazıt Eğitim ve Araştırma Hastanesi
[2]Uşak Eğitim ve Araştırma Hastanesi

Background and aim: Kompartman sendromu, kapalı bir anatomik boşlukta artan basıncın dolaşımı olumsuz etkilemesi sonucu buradaki dokuların perfüzyonunda bozulmaya sebep olan bir klinik durumdur [1]. Abdominal kompartman sendromu (AKS) yeni organ disfonksiyonu veya organ yetmezliğine sebep olan veya abdominal dekompresyon sonrası organ fonksiyonlarında düzelme görülen intraabdominal hipertansiyon (İAH) olarak tanımlanır [2, 3]. Şiddetli akut pankreatit olgularında birçok inflamatuar mediyatör, çeşitli organlarda kapiller geçirgenliğin artmasına katkıda bulunabilir, bu da agresif sıvı resüsitasyonu ile birlikte viseral ödem ve intraabdominal hipertansiyon (IAH) gelişimine neden olabilir [Pankreatik inflamasyonun tetiklediği inflamatuar kaskad sonucunda pankreas nekrozu, bağırsak dilatasyonu, viseral ödem, asit ve paralitik ileus görülebilmektedir. Bu fenomenler, karın içi hipertansiyona (IAH) ve nihayetinde AKS'ye yol açabilmektedir [4].

Case: 28 yaş erkek hasta 3 gün önce başlayan karın ağrısı ve kusma şikayetleriyle acil servise başvurdu. Hastanın ağrısı yemeklerden sonra ve alkol alımından sonra artıyormuş. Hastanın özgeçmişinde gastrit dışında bir hastalık olmadığı öğrenildi. Yaklaşık 2,5 yıldır haftada 2 defa 4 birim alkol aldığı öğrenildi. Acil serviste yapılan fizik bakısında hastada batında yaygın hassasiyet saptandı, defans ve rebound görülmedi, TA: 100/60 mm/Hg, nabız: 150/dk, solunum 25/dk olarak ölçüldü, diğer sistem muayeneleri olağandı. Acil serviste bakılan kan değerlerinde üre: 29 mg/dl, kreatinin: 1,94 mg/dl, amilaz: 656 U/L, lipaz: 1887 U/L, WBC: 18000 /mcl olarak ölçüldü. Abdominal BT akut pankreatit ile uyumlu izlendi. Girişimsel radyoloji tarafından peripankreatik alana drenaj kateteri takıldı. Yatakbaşı ultrason yapıldı. Ultrasonda batın içerisinde yaygın sıvı görüldü ve IVC kollabe izlendi. Batın içeri basıncın arttığı düşünülerek abdominal kompartman sendromu öntanısıyla genel cerrahi konsültasyonu istendi. İntravezikal basınç 21 mmHg ölçüldü. Rektovezikal drenaj için girişimsel radyoloji konsültasyonu istendi, kontrol abdominal BT sonucuyla rektovezikal drenaj planlandı.Yoğun bakıma yatışının 6. gününde entübe edildi. İnotrop desteğine rağmen bir süre bradikardik seyreden hastada asistoli izlendi, yapılan müdahalelere yanıt vermeyen hasta exitus kabul edildi.

Conclusions: Abdominal Kompartman Sendromu, şiddetli akut pankreatitin bir komplikasyonu olarak da klinisyenlerin karşısına çıkabilen hayatı tehdit eden ve mortalitesi yüksek bir hastalıktır. Nekrozitan pankreatit tek başına dahi ölümcül bir hastalıktır ancak AKS ile komplike olduğunda mortalite oranları artmaktadır. Şiddetli akut pankreatit düşünülen hastalarda agresif sıvı tedavilerinden kaçınmak ve intraabdominal basınç takibi yapmak, İAH oluşumunu erkenden tanımak ve AKS oluşmadan müdahale edebilmek için faydalı olabilir.

Keywords: Akut Pankreatit, Abdominal Kompartman Sendromu

P-016

Non-Travmatik Hemorajik SVO & Spontan Pnömotoraks Birlikteliği

Ömer Faruk Küçük[1], Hakan Hakkoymaz[1], Muhammed Mustafa Yılmaz[1], Bedirhan Özdemir[1], Muhammed Alkaya[1], Caner Akufuk[1]

[1]kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Arka plan ve amaç: Bilinç bulanıklığı acil servislere sık başvuru nedenlerinden biridir. Bilinci kapalı gelen hasta kendini ifade edemediği için tüm sistem muayeneleri daha dikkatli ve eksiksiz yapılmalıdır. Non-travmatik hemorajik serebrovasküler olay & spontan pnömotoraks birlikteliği olan olgu çok nadir gözlenen bir durumdur; bu durumda müdahalede geç kalındığında hayatı tehdit edebilecek ciddi klinik tablolar görülebilir.

Vaka: 53 yaşında kadın hasta acil servise ambulans tarafından bilinci kapalı olarak SVO ön tanısı ile getirildi. Hastanın özgeçmişinde hipertansiyon hastalığı olduğu bildirildi. Hasta yakınlarından alınan bilgiye göre; hasta evde ailesi ile birlikte oturuyormuş ve hastanın ani gelişen baş ağrısı sonrasında bilincinin kapandığı ve çevresine tepki vermediği ifade edildi. Hastanın yapılan fizik muayenesinde bilinci kapalı, GKS:9, SaO2:%80, nabız:111/dk, TA:210/105 mmHg olarak değerlendirildi. Hastada ağrılı uyarana zayıf yanıt, anizokori ve ışık refleksine yanıtsızlık mevcuttu. Hastanın akciğer oskültasyonunda, sağ hemitoraksta solunum seslerinde azalma saptandı. Laboratuar bulgularında; WBC:10.130 mm3, Hb:12.49 g/dL, Htc:39%, CRP:2.28 mg/L, INR:1.14 idi. Diğer değerler normal aralıklarda idi. Hastanın yapılan genel muayenesinde herhangi bir travma izi görülmedi. Hastadan santral sistemi ve solunun sistemini değerlendirmek için beyin ve toraks bilgisayarlı tomografi (BT) istendi. Hastanın acil serviste yapılan toraks ve beyin BT incelemesinde sağ ventrikül içinde sola shift yapan yaygın kanama alanları izlendi, aynı zamanda sağ akciğerde pnömotoraks saptandı . Hastanın çekilen toraks BT'sinde mediasten ve kalbin sola doğru shift yaptığı görülmesi üzerine göğüs cerrahisine haber verildi ve hastaya tüp torakostomi işlemi uygulandı. Hastanın beyin BT görüntülemesinde shift yapan yaygın kanama alanları izlenmesi üzerine beyin cerrahisine danışıldı. Beyin cerrahisi hastanın acil ameliyata alınmasına karar verdi. Bu sırada hastanın glaskow koma skoru gerilemeye başlayınca hastaya endotrakeal entübasyon uygulandı ayrıca hastaya antihipertansif tedavi, anti-beyin ödemi tedavisi, oksijen desteği, profilaktik olarak antiepileptik tedavi eşzamanlı başlandı. Sonrasında hastanın ameliyat hazırlığı yapılarak hasta ameliyathaneye gönderildi.

Kararlar: Non-travmatik hemorajik SVO & spontan pnömotoraks birlikteliği olan olgu çok nadir gözlenen bir durumdur; bu durumda müdahalede geç kalındığında hayatı tehdit edebilecek ciddi klinik tablolar görülebilir. Bilinci kapalı gelen hastada, hasta kendini ifade edemediği için tüm sistem muayeneleri daha dikkatli ve eksiksiz yapılmalıdır.

Notlar (Opsiyonel): Bilinç bulanıklığı ile getirilen her hastanın fizik muayenesi tam ve eksiksiz yapılmalıdır. SVO ve pnömotoraks birlikteliği oldukça görülen ve ölümle sonuçlanabilecek klinik bir tablodur bu nedenle bu klinik tablonun erken tanınması oldukça önem taşır.

Anahtar Kelimeler: Serebrovasküler hemoraji, pnömotoraks, bilinç bulanıklığı

P-143

Children Patient Post-Traumatic Cerebral Infarction

Hasan Mansur DURGUN[1], Süheyle BARAN[1], Mehmet YILMAZ[1], Mahmut YAMAN[1], Abdullah ŞEN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Cerebral infarction is rare in children .Underlying conditions that predispose children to sroke; sickle cell anemia ,structural heart anomalies ,moyamoya disease,hematological disorders,brain tumors,trauma.Head trauma is the most important causeof mortality and morbiditiy in childhood. Posttraumatic cerebral infarction is a complication of head trauma,which is among the rare causes of cerebral infarction in children.

Case: A two –year-old male patient was admitted wiht the complaints of falling from the same level and numbness in the left arm and leg after the fall and weakness.He hit his head on the floor after being stuck on the carpet the day before and he didn't vomit or have seizures.About 15 hours after falling the patient complained of numbness and weakness in the left arm and leg.In the physical examination of the patient;GCS 15,General Condition was good,conscious crying,weakness on the left side and inability to walk were present.The patient 's brain CT and extremity radiographs are normal.The patient has no known chronic disease.Spinal ,cranial and diffusion MRI were taken to patient whose complaints continued.The patient's brain angiography was normal and no patology was found in the blood tests.An infarc was seen around the right basal ganglia in the diffusion MRI image.The patient was consulted to the pediatric neurologist.It was sent to the outer centre.He was discharged after a week of conservative treatment and follow-up in the outpatient intensive care unit.

Conclusions: Post- traumatic cerebral infarction occurs in 5/100.000 children each.After the vulnerability of the brain meninges to high streching and shear forces, it leads to vascular endothelial damage ,intimal lesion followed by fibrin deposition ,leukocyte reaction and thrombus that occludes the lümen.The obstruction leads to cerebral ischemia whit clinical symptoms after a symptoms –free delay period.Minor head injuries can cause mechanical vasospasm of the cerebral infarction.Neurological symptoms regress whit resolution of vasospasm. Although rare, it is a diagnosis that shouldbe considered by emergency physicians after minor head traumas. Trauma has an effect of approximately 20%among infarcts, so a good history and physical examination is required. MRI should be requested for symptoms that are not compatible with brain tomography.

Keywords: Pediatric Patient, Post-trauma Cerebral İnfarction, Stroke, brain tumor

P-037

Appendicolith

Muhammed Masum Kurt[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Nefise Büşra Çelik[1], Alparslan Gündoğdu[1], Çilem Kızılelma[1], Murat Zeftçi[1]

[1]Kartal Lütfi Kırdar Şehir Hastanesi Acil Tıp Anabilim Dalı

Background and aim: Appendix is a part of the intestine that ends blindly where the large intestine begins and is located in the lower right abdomen. Appendicitis develops as a result of the obstruction of the appendix due to various reasons such as infection, foreign body and petrified feces(appendicolith). The appendix begins to swell as a result of impaired circulation, and in delayed cases, it may be perforated. In this case, we will discuss a male patient with appendicolith induced appencdicitis.

Case: A 28 years old male patient was adnitted to the emergency department with stomach ache. Vital signs on admission were as; TA: 117/67 mmHg, pulse: 72 per minute, fever: 36.6C, sO2: 98%. Patient describes the pain that starts mildly around the umbilical area and intensifies by spreading to the right side. There was no loss of appetite, nausea and vomiting. Physical examination: There was defense in the right inguinal region and other system findings were normal. And there was no known chronic diseases.

Conclusions: Appendicitis was considered in the first stage in a young patient who presented with abdominal pain and right lower quadrant defense. The patient's oral feeding was discontinued. CBC, biochemical blood tests, abdominal X-ray and ultrasound were requested from the patient. There was no finding other than leukocytosis and neutrophil dominance in blood tests. The appendix lodge could not be seen on ultrasound because of abdominal gasses. Abdominal tomography with contrast was taken and the appendix was 14 mm and 1 cm appendicolith was seen in the appendix lumen. Contamination and increased fluid were observed in the adipose tissue adjacent to the appendix. The patient consulted with general surgery and and operated under emergency conditions.

Keywords: Stomach Ache, Appendix, Appendicolith

P-113

Tibia tumor detected by radiography in the emergency department in an adolescent child

Dağıstan Sakçi[1], Gül Şahika Gökdemir[2], Mehmet Tahir Gökdemir[3]

[1]Mardin Training and Research Hospital, Emergency Department, Mardin
[2]Diyarbakir Children's Hospital, Physiology, Diyarbakir
[3]Mardin Artuklu University, Faculty of Medicine, Emergency Department, Mardin

Background and aim: In this case report, we wanted to emphasize that bone tumors in children may be asymptomatic and may be found incidentally or may be diagnosed in the emergency department as a result of minor trauma. Bone lesions present difficulties in diagnosis and treatment when encountered in imaging a child. Although most bone tumors are benign, foreignness may lead to unnecessary investigations. Radiographs are usually the first and most commonly performed imaging test in a symptomatic child. Bone lesions are frequently encountered on radiographs taken for localized skeletal symptoms or unrelated clinical indications. The radiographic approach to bone tumors is well described in the literature. Despite technological advances in imaging, radiographic evaluation of pediatric bone lesions remains an important component of evaluation. Radiographs are a powerful preliminary tool for bone lesion assessment and guide further management, which may include further imaging. When an unknown pediatric bone lesion is encountered, location is crucial to establish a differential diagnosis. Some lesions have a preference for the axial skeleton or flat bones, while others occur at specific sites within a long bone. For example, chondroblastoma arises in the epiphysis, while bone cysts originate in the metaphysis near the growth plate but may migrate towards the diaphysis during bone growth.

Case: A 13-year-old boy felt pain in his foot due to falling while playing ball and was brought to the emergency department. The case had no previous complaint. There was pain in the lower left knee area as a result of falling while playing ball. The patient also had mild skin abrasions in the same area. Direct X-ray X-ray showed an image consistent with a bone tumor in close proximity to the upper medial metaphysis of the left tibia (Figure 1). The patient was consulted with orthopedics and was hospitalized for further examination and treatment.

Conclusions: Bone lesions can cause significant problems in children. The mass images seen incidentally in children who come to the emergency department with different complaints should not be misunderstood as cyst. Further investigation should be done and treatment planning should be done according to the pathology of the mass.

Keywords: Adolescent, Radiography, Tibia tumor

P-098

PATHOLOGICAL BONE FRACTURES

Muhammet Zahit Tursun[1], Avni Uygar Seynan[1], Erdal Yılmaz[1], Rohat Ak[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Pathological fractures occur with weakening of the bone tissue with reduced mechanical and viscoelastic properties. Pathological fractures may appear as the first finding of the underlying pathology. Tumors, infections, and metabolic diseases are considered to be among the most common causes. In the case we will talk about, a 50-year-old male patient presented with increasing difficulty in walking for 9 days.

Case: A 50-year-old patient with a known diagnosis of Renal Cell Carcinoma (RCC) was admitted with the complaint of difficulty in walking, which had been increasing for 9 days. In the physical examination; upper extremity was mobile, no motor deficit was detected, the lower extremities were paraplegic on both sides, there was no incontinence, the Babinski test was positive bilaterally, and deep tendon reflexes were bilaterally hyperactive. As a result of the physical examination, the patient was thought to have lower motor neuron damage, and upon the suspicion of a mass invading the T8 vertebral corpus in the imaging performed, he was admitted to the Neurosurgery Service.

Conclusions: Although Cerebrovascular accident (CVA) is considered primarily in patients presenting with motor deficits, in the presence of additional diseases with frequent bone and vertebral metastases such as RCC, Breast cancer, Prostate Cancer, vertebral imaging should be performed in addition to cranial imaging, and it should not be forgotten that lower motor neuron damage may be present.

Keywords: bone fractures, rcc

P-147

INTRAPERITONEAL FREE FLUID AFTER BLUNT TRAUMA: CYST RUPTURE THAT LOOKS LIKE ABDOMINAL BLEEDING

Huseyin Kilavuz[1], Murat Demir[1], Kemal Sener[2]

[1]Basaksehir Cam and Sakura City Hospital, General Surgery Clinic
[2]Basaksehir Cam and Sakura City Hospital, Emergency Medicine Clinic

Background and aim: In this case, we present the approach, follow-up and treatment process of a patient with free fluid in the abdomen due to blunt abdominal trauma (BAT), which developed as a result of falling from the same level.

Case: A 47-year-old male patient who had undergone BAT due to falling from the same level at home was admitted to our emergency department. He has no comorbidities or previous surgery. Arrival vital signs were normal. On physical examination, there was only mild abdominal tenderness. Laboratory tests were within normal limits. Abdominal computed tomography (CT) was performed after diffuse intra-abdominal free fluid was observed in abdominal ultrasonography (USG). The general surgery clinic was consulted because diffuse fluid was observed between the intra-abdominal intestinal loops (Figure 1) in the CT imaging of the patient whose general condition was stable. Paracentesis was performed by the general surgeon and the free fluid content in the abdomen was found to be serous.He was admitted to the ward with follow-up and treatment plan. The patient, who did not have any abnormal findings in the abdominal examination and laboratory tests during the follow-up, was discharged with outpatient control. The patient was transferred to the follow-ups of the urology clinic after the abdominal CT performed at the first month follow-up reported an ectopic location of the left kidney and a cystic formation of 18x8 cm originating from here (Figure 2). It was learned that in the follow-up of the process, nephrectomy surgery for the left ectopic kidney was performed.

Conclusions: Blunt trauma is one of the most common causes of admission to emergency services. If injuries such as liver, spleen or mesentery lacerations occur due to blunt abdominal trauma, hemoperitoneum may develop (2). Although hemoperitoneum is the first condition that comes to mind in the presence of free intra-abdominal fluid after trauma, ascites and other fluid collections should also be considered in the differential diagnosis (3). Blunt traumas constitute an important patient group of emergency services. Multidisciplinary approach is important in blunt trauma cases.

Notes (Optional): This case was managed multidisciplinary.

Keywords: abdominal fluid, blunt trauma, renal cyst rupture

P-018

Spontaneous splenic rupture

Dr. Servan Velat Bilgeç[1], Doç. Dr. Avni Uygar Seyhan[1], Dr. Erdal Yılmaz[1], Doç. Dr. Rohat Ak[1], Dr. Gürkan Akman[1], Dr. Beyza Dağ[1], Dr. Selin Korkmaz[1], Dr. Ahmet Şahin[1]

[1]Kartal Dr. Lütfi Kırdar Eğitim ve Araştırma Hastanesi

Background and aim: Splenic rupture is a potentially life-threatening condition, often associated with chest or abdominal trauma. Spontaneous rupture is very rare and is usually reported as being secondary to underlying pathological conditions. We present a case of non-traumatic splenic rupture in a patient with no underlying disease pathology. The case is important to remind the emergency physician spontaneous splenic rupture should be considered in the differential diagnosis of unexplained acute abdominal pain.

Case: A 58-year-old man, with no chronic disease arrived at the emergency department complaining of abdominal pain which started morning.On arrival, patient was stable, blood pressure 123/69 mmHg and pulse 72/min, the patient was uncomfortable and had an left upper quadrant abdominal tenderness. After abdominal USG, collection and free fluid peri-splenic area and free fluid pelvic region were seen. The collection is dense and cannot be differentiated from the spleen parenchyma. Contrast-enhanced abdominal CT performed later revealed a heterogeneous image in the spleen with prominent perihepatic and perisplenic fluid, and additionally free fluid compatible with hematoma in the pelvic area.During the imaging procedures, the patient was followed up as hemodynamically stable and intravenous hydration was given while sequential blood tests were performed. While the liver values were normal, a significant decrease was observed in the hemoglobin value. some additional tests were performed for excluding possible infectious disease which can cause spontaneous spleen rupture. In addition patient consulted general surgery, infectious disease and internal medicine. The patient hospitalized for further investigation possible cause.

Conclusions: Spontaneous splenic rupture (SSR) is a rare but potentially life-threatening entity. It can be due to neoplastic, infectious, hematological, inflammatory and metabolic causes. An iatrogenic or an idiopathic etiology should also be considered. Depending on the degree of splenic injury and the hemodynamic status of the patient, it can be managed conservatively.In case of high clinical suspicion, the patient should be observed hemodynamically, hemoglobin value should be monitored, and abdominal CT should be performed, especially if the diagnosis cannot be clarified.Spontaneous splenic rupture is a rare entity and clinicians should have a high index of suspicion for diagnosis.

Keywords: splenic rupture, non-trauma, fast usg, abdominal pain

P-019

Two ischemic condition simultaneously; Ischemic cerebrovascular event and myocardial infarction

Dr. Servan Velat BİLGEÇ[1], Doç. Dr. Avni Uygar SEYHAN[1], Dr. Erdal Yılmaz[1], Doç. Dr. Rohat AK[1], Dr. Abdulkadir ÇITIR[1], Dr. İzzet Ustaalioğlu[1], Dr. Berk ÇAKMAK[1], Dr. Asya Yağmur KARAKÜÇÜK[1]

[1]Kartal Dr. Lütfi Kırdar Eğitim ve Araştırma Hastanesi

Background and aim: Acute ischemic stroke (AIS) and acute myocardial infarction (AMI) are life-threatening medical conditions with a serious prognosis if not treated promptly.However, the approach to the immediate management of a simultaneous co-occurrence of both AIS and AMI, especially ST elevation myocardial infarction (STEMI), is unclear, and there is no specific evidence-based guideline or clinical studies that have identified the optimal management.The reported case show this rare ischemic event presentation and management of acute cardio-cerebral ischemia (CCI) and provide benefit to existing literature.

Case: 52 years old man who has asthma, diabetes mellitus and hypertension chronic diseases, administer to emergency complain of chest pain which radiated left arm. On arrival, patient was stable but uncomfortable, his vitals was blood pressure 141/79 mmHg, pulse 92/min, saturation: 96 with O2 supply. On ECG ST elevation in D3 and aVF and reciprocal ST depression in aVL. 300 mg acetylsalicylic acid [ASA] was given to patient and patient was transferred to the cardiology clinic which 5 minutes away by ambulance. Upon the development of motor deficit in the left arm of the patient during the transfer process, patient was consulted to neurology for cerebrovascular ischemic event and treatment recommendation. On examination, patient's upper left extremity was 1/5, lower left extremity was 2/5 and nihss :7. After immediately performed scaning, bilateral carotid artery stenosis was detected in CT-angiography and diffusion restriction was detected in diffusion MR imaging. After the consent form obtained from the patient, tPA treatment was started and the patient was admitted to the stroke intensive care unit.

Conclusions: There is presently no clinical trial or a consensus guideline for the management of simultaneous CCI. There is need to identify a unifying dose of intravenous thrombolytic, the optimal duration of administration, the role of antiplatelets and combined percutaneous coronary and cerebral endovascular procedures. However, given the current knowledge limitations, the approach to management should be individualized as outlined literature.

Keywords: acute myocardial infarction, acute cerebrovascular event, vascular occlusion, cardio-cerebral ischemia

P-090

A Rase Case: Fungal Encephalitis

Mahmut YAMAN[1], Engin DEMİR[1], Mehmet YILMAZ[1], Abdullah ŞEN[1], Mehmet ÜSTÜNDAĞ[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Fever, headache, epileptic seizures with focal neurological findings and impaired consciousness are characteristic for meningoencephalitis. Causes of meningoencephalitis inclue bacterial,viral,fungal infections whiple disease. The most common agent is the herpes simplex virus (HSV1).It causes marked necrotizing encephalitis with edema,necrosis and hemorrhage, which selectively involves the frontal and temporal lobes. We aimed to present a case of encephalitis diagnosed with biopsy results.

Case: A 28-year-old male patient was admitted to our emergency department with a general condition disorder. In the anamnesis of the patient,he applied to an external center with complaints of weakness in the right hand and below the elbow and aggravation in speech about 2 weeks ago.After admission, a biopsy was taken from the mass in the right temporal region .Although 'aspergillus' was considered in the foreground in the biopsy report, it was reported as fungal encephalitis as microbiological typing is recommended for definitive diagnosis.The general condition of the patient was moderate , consciousness was lethargic,TA:98/48, pulse:77, respiratory rate:17, fever:36.2,saturation:97.On physcical examination ,ir: +/+, pupillary isochoric,eye movements active in all directions, proximal right upper extremity muscle strength:2/5,other extremity examinations full muscle strength,headache+,neck stiffness+,nausea,vomiting:fever:-was.Laboratory findings WBC:16 thousand CRP:were normal.In the brain tomography, a space-occupying lesion with a size of approximately 4 cm,at the level of the left basal ganglia and in the frontatemporal white matter,accompained by edema,which causes compression on the left lateral ventricle,was noted, and a 4 mm shift was observed from the midline to the right.Bihemispheral sulcus and fissures are indistinct.A defect-like appearance was observed in the right occipital bone, and a decrease in density was observed in the adjacent white matter.At this level,scalp and hemorrhage were noted. A diagnosis of fungal encephalitis was made by biopsy of the patient,and medical treatment was started by infectious diseases.

Conclusions: The disease is characterized by sudden onset of fever, headache, epileptic seizures with focal neurological findings , and impaired consciousness. Meningitis cases seen in the emergency department can cause serious complications and may cause permanent damage if not promptly diagnosed and treated.In the presence of strong suspician the patient should be immediately brain-imaged and the necessary treatment should be done without delay.

Keywords: Meningitis, Encephalitis, Emergency Service, Early Diagnosis, Fungal

P-109

SEGMENTAL FRACTURE OF THE SCAPHOID

Çilem KIZILELMA[1], Avni Uygar SEYHAN[1], Erdal YILMAZ[1], Rohat AK[1], Nahide Gizem OKAY[1], Elif OYMAK[1], Ahmet ŞAHİN[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Scaphoid fractures are among the most common upper extremity injuries. They frequently occur following a fall onto an outstretched hand. Plain radiographs taken soon after the injury may not reveal a fracture, but the clinician should assume one is present until definitive proof otherwise is obtained. Carpal fractures account for approximately 5 percent of all fractures and 18 percent of hand fractures, and scaphoid fractures are the most common carpal fracture. Scaphoid fractures account for 10 percent of all hand fractures and 60 to 70 percent of all carpal fractures.Scaphoid fractures can lead to significant morbidity. They are associated with complications such as avascular necrosis, non-union, scaphoid non-union advanced collapse and osteoarthritis of the carpus. Timely identification of scaphoid fractures is therefore crucial. Establishing the fracture pattern also has important implications for management and outcomes.We present a rare case of segmental fracture of the scaphoid. This case highlights the importance of using appropriate imaging modalities to assess the presence and morphology of fractures.

Case: A fit and well 19-year-old man was describing pain in his wrist after football. The mechanism of formation was unknown. He was right hand dominant and a non-smoker. There was no history of previous hand injury. There was anatomical snuff box tenderness. X-ray of the patient was requested. Scaphoid fracture observed. The patient was consulted to the orthopedic surgeon.

Conclusions: Radiographs identified a non-displaced left scaphoid fracture through the waist.The scaphoid is the most frequently fractured carpal bone and when poorly managed can lead to non-union or malunion with significantly reduced function.On plain radiographs, fracture lines can be difficult to assess. It is important to consider the use of other imaging modalities to identify fractures and define their morphology.The scaphoid fracture pattern is important to establish as it is central to management decision-making.CT imaging is the gold standard to assess fracture morphology in detail. MRI with gadolinium enhancement is the best modality to diagnose occult fractures and avascular necrosis.

Keywords: scaphoid fracture, radiology, orthopaedic and trauma surgery, orthopedic emergencies

P-094

Coexistence of confusion and rash: Thrombotic Thrombocytopenic Purpura

Hamza PEKMEZCİ[1], Elif GÜNHAN[1], Suna ERAYBAR[1], Mehtap BULUT[1], Mustafa KARAZEYBEK[1]

[1]University of Health Sciences Turkey, Bursa City Hospital Emergency Department

Background and aim: Thrombotic thrombocytopenic purpura (TTP) is a group of diseases characterized by destruction of erythrocytes passing through the platelet fibrin network in the microthrombus in the capillary and arteriole system. We planned to present a case of ttp, which we evaluated with rash and central symptoms, in the light of the literature.

Case: 47 years old female patient. She has a known migraine disease. She uses feniramidol HCI for it. She admitted to emergency department with complaints of low back pain, nausea, vomiting and syncope that started today. She had an altered state of consciousness GCS was 14. Neurological Examination: muscle strength: lower extremities 3-4/5. No sensory loss. On abdominal examination, there is tenderness in the right upper quadrant. Peripheral pulses are palpable. Fever: 36.3 Pulse: 120/min, SPO2: 97% with O2 supported mask, arterial pressure: 150/70 mmHG, respiratory rate with respiratory effort 20. No significant finding on the skin. Petechiae and purpura occurred in the arm where blood pressure was measured. During the follow-ups of the patient, worsening of general condition, decrease in blood pressure and saturation were detected. MR and CT central system imaging is normal. platelet value is 134000 and creatinine value is 2.11 TTP was admitted to the intensive care unit with a prediagnosis of MAHA. In the treatment, plasmapheresis was performed and 2 units of freeze-dried plasma were given.

Conclusions: TTP may be caused by problems with an enzyme (a type of protein) that is involved in blood clotting. Although TTP is a very rare diagnosis, it can be quite mortal. It is an important prediagnosis that should be kept in mind.in treatment Plasma exchange (40-60 ml/kg) plasma volume should be changed daily. Glucocorticoids (prendison 1 mg/kg/day) may be added on ER patient follow-up.

Notes (Optional): Images and resources of the case will be added in the full text

Keywords: Thrombocytopenia, plasmapheresis, acute rash

P-028

Snake Bite on the Head

Mahmut YAMAN[1], Erdi Kadir YILMAZ[1], Haydar SEZGİN[1], Abdullah ŞEN[1], Hasan Mansur DURGUN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: There are generally Viperidae group snakes in our country. The venom of such snakes can cause systemic thrombocytopenia, mortal bleeding as a result of disseminated intravascular coagulation, and compartment syndrome due to local tissue toxicity. In this case, we planned to discuss the emergency service management of the patient who applied to the emergency department with a different clinical condition, as a result of snake bite on the head of the patient.

Case: An 81-year-old female patient was brought to the emergency department with the complaint of a snake falling on her head while walking on the road and biting the left part of her head. The patient was conscious, cooperative and oriented. The patient's blood pressure was measured 115/75 mmHg, fever 36.6 C, heart rate 85 per minute. In the physical examination of the patient, there was a bruise and swelling extending to the left eye after a snake bite in the left parietal region. In the radiological imaging of the patient, there was thickening and increase in density in the left orbital preseptal area, and a thickening and hematoma reaching 1.5 cm secondary to trauma in the scalp adjacent to the left frontoparietal bone. It was observed that the patient's ecchymosis was increasing in the follow-ups. The patient was evaluated as stage 2-3 and anti-snake serum was administered to the patient. Ice was applied to the patient. After the first intervention of our patient was finished, he was hospitalized in the service for follow-up and treatment.

Conclusions: Snake bites carry the risk of serious bleeding disorders. When every patient followed up due to snake bite comes to the emergency room, even if he/she has no symptoms, systemic examination, spread of local tissue edema It should be evaluated every hour for signs of bleeding diathesis such as petechiae, hematuria, and hematemesis. Complete blood count, coagulation parameters (PTZ, APTT, fibrinogen) should be checked for every snakebite patient admitted to the emergency room. It should be routinely repeated every 4-8 hours, even if there is no defect in coagulation parameters, and it should not be forgotten that coagulopathy may develop afterwards.

Keywords: Snake Bite, Tetanus, Bleeding Disorder, Periorbital Swelling, Ecchymosis

P-137

GUNSHOT INJURY

Doç. Dr. Avni Uygar Seyhan[1], Doç. Dr. Rohat Ak[1], Dr. Erdal Yılmaz[1], Dr. Bengü Mutlu Sarıçiçek[1], Dr. Servan Velat Bilgeç[1], Dr. Bülent Yılmaztürk[1], Dr. Hazel Deniz Erdoğan[1]

[1]Kartal Dr. Lütfi Kırdar Eğitim ve Araştırma Hastanesi

Background and aim: In our country, injuries and deaths with firearms, which are very easy to obtain through legal or illegal means and are getting easier day by day. In this case, we aimed to present the management of the patient admitted to the emergency department with a gunshot injury.

Case: 15-year-old male patient was admitted to the emergency department with a gunshot wound to the chest area. In the patient's anamnesis; It was learned that he was shot in the chest area with blank gun. It was learned that a bead was placed on the tip of the gun. Measured vital parameters were blood pressure 100/56 mm/hg, heart rate:95/min room air saturation was 95%.In the physical examination; There was a bullet entry hole and a gunpowder burn 4 cm above the right nipple. The patient looked pale and sweaty. Lung sounds were decreased in lower right zone and his abdominal and neurological examinations were normal. Blood tests were taken from the patient. Pericardial effusion was detected in bedside ultrasonography. A double-extremity wide venous vascular access was opened. Intravenous fluid replacement was started. Antibiotics and tetanus prophylaxis were administered. Thoracic computed tomography angiography was requested. In the imaging, hemothorax and pericardial tamponade were detected in the right hemithorax. Left 7.8. A foreign body was detected on the jeans' inner surface at the rib level. In his follow-ups, his blood pressure was 60/35 mm/hg, respiratory rate was 25-30/min, and his consciousness was confused. Norepinephrine for positive inotropic purposes was started. In blood tests,hemoglobin is 11.5 g/dl.1.Post-hours control hemogram;10.5 g/dl was detected.Thoracic surgery, cardiovascular surgery (CVC), and general surgery consultations were requested. A tube thoracostomy was performed by the thoracic surgeon. He was taken to emergency operation by CVC due to tamponade.

Conclusions: Initial physical findings may not correlate to actual injuries, and the physician may face more severe case than anticipated. Many of these patients could be spending the golden hours of trauma in admission. Early evaluation and intervention in patients with gunshot injuries are, therefore, of the most importance.FAST and CT are steadily becoming more important in the diagnosis of thoracic and abdominal injuries

Keywords: gunshot, tamponade, injury, emergency

P-151

Acromioclavicular dislocation

Murat Zeftci[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Nahide Gizem Okay[1], Mukaddes Kübra Melemez[1], Çilem Kızılelma[1]

[1]Dr Lütfi Kırdar Şehir Hastanesi

Background and aim: Traumas that may occur during the ictal period in patients presenting with seizures are very prone to be missed and should always be carefully evaluated. Because the patient cannot give adequate anamnesis due to the confusion in the post-ictal period and the physical examination is limited.

Case: A 36-year-old male patient, who was followed up with a known diagnosis of epilepsy, was brought to the emergency department unconscious. GCS of the patient, who was in the post-ictal period on arrival, was 14(confused), vittals are stable, ECG: normal sinus rhythm. On physical examination, there was a 2cm incision on the lateral right eyebrow. There was tenderness on palpation and limitation of joint motion at the right shoulder. External system examinations were normal. In her neurological examination, the patient complied with the commands, and no motor or sensory deficits were found in her 4 extremities. in addition to use antiepilectic drug regularly, he had recently a seizure. Upon this, examination and imaging were requested from the patient. Blood gas test results were pH: 7, 28, lac: 9, hco3: 21, pO2: 65, pCO2: 37. No additional pathology was found in other external blood tests. No hemorrhage/mass/fracture was detected in the patient's brain CT. Upon detection of type 3 acromioclavicular dislocation/separation in the shoulder X-ray, the orthopedics department was consulted. Velpau bandage was applied to the patient by orthopedics and the decision was made for effective operation on follow-ups. In the follow-ups, the operative utilization was found to be low, and conservative treatment was continued.

Conclusions: Acromioclavicular dislocation usually occurs after a fall while the arm is adducted over the shoulder. There are 6 types of AC joint injuries described by Rockwood. (1) The majority of AC joint injuries are low-energy traumas classified as Type 1 and Type 2, and good results are obtained with conservative treatment (2). In type 3, conservative or operative options are considered depending on the patient's condition and joint stability. Type 4,5,6 shoulder AC joint traumas are high-energy and require surgical treatment. (3) our case was evaluated as type 3 a and followed up with a conservative approach.

Keywords: acromioclavicular dislocation, joint, seizure, trauma, joint seperation

P-056

A rare event secondary to trauma in hemophilia B: psoas hemorrhage

Zikret Köseoğlu[1], Yücel Yüzbaşıoğlu[1], İnan Beydilli[1], Ahmet Uzan[1]

[1]Mersin Şehir Eğitim Ve Araştırma Hastanesi

Background and aim: Hemophilia is a rare inherited bleeding disorder that develops as a result of factor VIII or IX deficiency. Factor VIII deficiency is called Hemophilia A and factor IX deficiency is called Hemophilia B. In patients with mild hemophilia, the diagnosis is made at an advanced age because the bleeding usually develops as a result of serious traumas or surgical interventions. The severity of bleeding findings is directly related to the degree of deficiency of factor VIII or IX. Hemophilia is a group of diseases that usually manifests itself with intra-articular and intramuscular bleeding. It is an atypical localization of iliopsoas hematoma in hemophilia patients.

Case: A 38-year-old male patient applied to our emergency department with the complaint of low back pain. In the anamnesis taken from the patient, it was learned that his foot slipped and fell at home at night and then severe low back pain started. The patient's history revealed that he had hemophilia-B disease for about 15 years. The patient, whose complaints continued, applied to the emergency department of our hospital for the second time, and in the physical examination of the patient, tenderness on palpation in the left lumbar region and sensitivity to the costal vertebral angle were detected. The patient's arterial blood pressure was 140/90 mmHg, fever: 36.6 C, pulse: 66/min, and peripheral oxygen saturation was 97%. In laboratory examinations; WBC: 11.65, Glucose: 114 mg/dl, CK: 561.12 U/L, CRP: 7.3. In the uncontrasted lower and upper abdomen tomography requested from the patient, it was reported that there was a "significant thickening of the right psoas muscle compared to the left psoas muscle" and hemorrhagic changes in and around the right psoas muscle (Picture 1).

Conclusions: In patients with hemophilia, bleeding into the skin, muscle or soft tissue may occur spontaneously or after trauma. Iliopsoas hematoma is a rare and serious complication seen in patients with hemophilia. Therefore, the presence of physical examination findings consistent with the patient's complaint, especially after trauma, should be a warning for hematoma in patients with hemophilia. Prevention of possible complications is possible with early diagnosis and treatment.

Notes (Optional): Hemophilia B, psoas hematoma,

Keywords: Hemophilia B, psoas hematoma

P-130

TONKA BEAN POISONING

Canan Küçükyılmaz[1], Berke Yıldırım[1], Beyza Duran[1], Ramazan Köylü[1], Nazire Belgin Akıllı[1]

[1]Konya City Hospital, Department of Emergency Medicine, Konya, Türkiye

Background and aim: Tonka bean plant is cultivated in many countries and regions around the world for commercial purposes. Tonka bean (Ricinuscommunis L.) plant is in the Euphorbiacea family and this plant is used in different areas. The ricin found in the bean seed sare the most importan tphytotoxictoxins. A case of toxicity after eating podswill be presented.

Case: A 26-year-old female patient a tebroad beans about 6 hours before she was admitted to the hospital because she was curious about it staste. He was brought to the hospital about 3 hours later, when he started to complain of nausea and vomiting and then had a seizure. On physical examination, the general condition is moderate. TA 110/70 mmHg, Sat:%94, heart rate: 86 per/min. Symptomatic treatment was applied to the patient whose blood gas and routine blood were normal. No pathology was detected in their imaging. On the first day of hospitalization, mucosal lesions occurred in the mouth due to local irritation. It regressed with antihistamine treatment. On the 2nd day, the patient was in good general condition and had no active complaints and was discharged 48 hours after hospitalization.

Conclusions: DISCUSSION:Tonka be an contains ricin and ricin toxins. It has been reported that 4-6 seeds can kill people. It shows its main effects against the intestinal epithelium. Bloody diarrhea is seen due to the irritant effect. Clinical manifestations may occur a few hours or days after ingestion. Generally, seizures occur after 12-48 hours. General clinical symptoms; nausea, abdominal pain, bloody diarrhea, tenesmus, dehydration, anorexia, weakness, convulsion, dyspnea, cyanosis. Death may occur due to paralysis of respiratory centers from convulsions. Inaddition, the tonka bean plant is allergic. Sensitive individuals may experience symptoms such as itching, drowsiness, edema, and a drop in bloodpressure.Tonka bean is a plant that is found as a garden plant, is easily accessible, and is used especially for cosmetic purposes in the community. Therefore, the public should be informed, especially for plants with such toxic effects.

Keywords: Tonka bean, Poisoning

P-112

Effective Transport of The Ampute Part

Ercan GÜNDÜZ[1], Murat Berdan BARUT[1], Aziz ZİLAN[1], Hasan Mansur DURGUN[1], Mahmut YAMAN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: One of the most important factors affecting the success of surgical treatment in ruptures is the first intervention to the patient and the way the severed limb is transported to the hospital. Although there are very clear and simple steps on how to transport the broken part, emergency services often witness the wrong handling of the severed limb, and even if the limb is delivered to the emergency room in the right time, it is common for the severed limb to become unusable as a result of incorrect transport.

Case: A 22-year-old male patient was a motorcycle repairman and frequently engaged in motorcycle chain lubrication during the day. The patient did not have an additional chronic disease and was not receiving any treatment. While lubricating the motorcycle chain, the patient applied to the emergency department of the district where he was located with a finger amputation by squeezing the 3rd and 4th fingers of his right hand between the chain of the motorcycle while operating the chain and continuing the lubrication process. After the patient was stabilized in the district emergency and the necessary first medical intervention was made, he was transferred to our hospital, which is a microsurgery center, with amputated amputations, as seen in the picture, inappropriately. After the necessary first intervention was given to the patient, he was taken to the operation by the relevant clinic.

Conclusions: When the amputated part is taken from the injury site, it should be washed with physiological saline and wrapped in gauze and placed in a dry, waterproof bag. Then it should be put into another bag with ice water in this waterproof bag. Because the finger exposed to extreme cold can become dull. Therefore, by combining the amount of ice and water correctly, the amputated fingers in a waterproof nylon bag should be transported quickly to the place where the patient will receive the necessary treatment. As a result, it should be kept in mind that the amputated material should be transported correctly with simple, effective, inexpensive measures that can be taken and equipment that can be accessed everywhere.

Keywords: Ampute Finger, Ice, Waterproof nylon bag, Injury

P-122

The Impact Of Team Leader Experience On Chest Compression Pauses During In-Hospital Cardiac Arrest

Johannes Wittig[1], Bo Løfgren[2], Rasmus P. Nielsen[3], Rikke Højbjerg[4], Hans Kirkegaard[1], Kasper G. Lauridsen[2]

[1]Research Center for Emergency Medicine, Aarhus University Hospital, Denmark
[2]Department of Medicine, Randers Regional Hospital, Denmark
[3]Department of Anaesthesiology and Intensive Care, Gødstrup Hospital, Denmark
[4]Emergency Department, Aarhus University Hospital, Denmark

Background and aim: High-quality chest compressions with minimal pauses are essential to improve survival following in-hospital cardiac arrest (IHCA). The impact of team leader experience on chest compression pause duration is unknown. We sought to determine the association of team leader experience with chest compression pause durations during IHCA resuscitation attempts.

Methods: Data on team leader experience was collected through post-arrest surveys as part of a large, prospective, multicenter cohort study. Data were matched with defibrillator impedance signal recordings obtained during IHCA. The primary endpoint was the association between having an experienced team leader (defined as >4 years of clinical experience) with the longest chest compression pause duration. Chest compression fraction was defined as the proportion of the resuscitation attempt with chest compressions. We used generalized linear mixed effect models to account for clustering by site.

Results: From January 1, 2021 to April 30, 2022 we identified 67 IHCAs with data on chest compression quality and team leader experience. Median team leader experience was 5 [3; 9] years. The median duration of the longest chest compression pause was 16 [12; 26] seconds and the median chest compression fraction was 82 [78; 85] %. The longest pause duration was 5.2 (95%-CI:1.7; 8.7) seconds longer for resuscitation attempts led by an experienced team leader as compared to a junior team leader (p=0.004). Chest compression fraction tended to be lower for resuscitation attempts led by experienced team leaders compared to junior team leaders (difference: -3.2% (95% CI: -7.7; 1.3%, p=0.10).

Conclusions: Resuscitation attempts led by team leaders with >4 years of clinical experience are associated with longer chest compression pauses during IHCA.

Keywords: CPR, In-Hospital Cardiac Arrest, Resuscitation, Team Leader, Chest Compression Quality

P-001

Telehealth and COVID-19 pandemic

Zerrin Defne Dündar[1], Merve Demiryürek[1]

[1]Necmettin Erbakan University Meram Faculty of Medicine Emergency Medicine Department

Background and aim: Recently, the rapid development of technology and widespread use of internet have led to the increase in the number of applications that can significantly affect the roles of health care beneficiaries and providers.

Methods: In this study, we aimed to review the current literature related with telehealth usage during the COVID-19 pandemic.

Results: In 2020, the World Health Organization (WHO) updated the Recommendations on Digital Interventions for Health System Strengthening as follows: "the provision of healthcare services at a distance with communication conducted between healthcare providers seeking clinical guidance and support from other healthcare providers (provider-to-provider telemedicine); or conducted between remote healthcare users seeking health services and healthcare providers (client-to-provider telemedicine)". The restriction of interaction due to the social isolation applied during the pandemic process led to the widespread use of telehealth with the declaration of COVID-19 as a global epidemic on March 11, 2020. In this epidemic period, different health services have been tried to be offered to patients who are afraid to go to health institutions or who cannot access health services through telehealth systems. In current the literature, many different areas of telehealth use during COVID-19 have defined, such as clinical care, follow-up, medical education, diagnosis, rehabilitation, health communication, triage, and health care worker wellbeing. Distance counseling systems have gained great importance worldwide as they contribute to the protection of social isolation for chronic patients, who are risky groups, and the effective use of health resources by determining priority criteria for applications to health institutions and reducing the burden of the health system. On the other hand, the forward triage system, which allows the severity of the patients to be determined before they arrive in the emergency room, provides convenience to emergency service providers and patients. Also, inpatient telehealth systems to monitor and communicate with isolated COVID-19 patients are widely used in wards and intensive care units of health care facilities.

Conclusions: Steps to be taken to adapt to these rapid changes and developments in health care delivery may increase the quality of patient care and health care providers should be familiar with those technological opportunities.

Keywords: COVID-19, telehealth, emergency

P-009

Bradycardia in a Patient with Anaphylactic Shock

İnan Beydilli[1], Oguz Koçak[1], Giray Altunok[1], Yücel Yüzbaşıoğlu[1], Zikret Köseoğlu[1]

[1]Mersin Şehir Eğitim Ve Araştırma Hastanesi

Background and aim: Anaphylaxis is defined as a severe systemic hypersensitivity reaction characterized by airway, respiratory, circulatory problems and skin and mucosal changes that can cause rapid onset of death .It occurs soon after exposure to the allergen and is most commonly caused by drugs, food, and insect bites.

Case: 41-year-old female patient came to the emergency department with complaints of itching and redness all over the body after taking amoxicillin and etodolac . Blood pressure: 110/70, Fever: 36.5 Sat: 97, she had widespread erythematous rashes all over her body, and her uvula and tongue were normal . The patient, whose respiratory and gastrointestinal tract examinations were normal, was monitored for follow - up. When the patient experienced shortness of breath and loss of consciousness during the follow-up, it was evaluated as anaphylaxis and 0.5 mg im adrenaline was administered. While waiting for an adrenaline response, bradycardia (heart rate: 27) was observed on the monitor. 1mg of atropine was administered. After 1 minute, the heart rate increased and the patient regained consciousness, and the vitals of the patient were stably monitored and kept under observation for 6 hours. The skin lesions and itching of the patient, whose laboratory values were normal, decreased during the follow-up. The patient was admitted to the intensive care unit for 24-hour follow-up.

Conclusions: The expected response of the heart in anaphylaxis is tachycardia. However, bradycardia is accompanied in 6% of cases. If the patient develops confusion , unconsciousness and bradycardia , this is a severe anaphylaxis and may result in cardiac arrest

Keywords: anaphylaxis, Bradycardia, adrenaline

P-024

AN INTERESTING CAUSE OF ACUTE RENAL FAILURE

Kemal Yıldırım[1], Erdem Çevik[1], Melih Arınç[1], Dilay Satılmış[1]

[1]Sultan Abdülhamid han eğitim araştırma hastanesi acil tıp kliniği

Background and aim: Acute renal failure (ARF) is defined as an increase of 0.3 mg/dl in serum creatinine level or an increase of more than 50% of the baseline level in the last 48 hours according to the AKIN criteria(1).

Case: The patient, who applied to the ED with the complaints of nausea, vomiting and fever, was referred to our ED as an outpatient because the creatinine value increased by 25% compared to the basal value and the CRP value increased. A 69-year-old male patient with diabetes mellitus, hypertension and chronic kidney failure was using antihypertensive and antidiabetic drugs. The patient's vitals were TA: 130/54 mmHg, heart rate: 116 beats/minute, fever: 36', sPO2: 92%. The general condition of the patient was moderate. No abnormal findings were detected in the physical examination. Laboratory values measured in the ED were; Glucose 460 mg/dL, Urea 98 mg/dl, Creatinine 4.3mg/dL, CRP 315mg/L, INR 1.4 and high (Na) 127 mmol/L, Chlorine 93.6 mmol/L, Calcium 7.8mg/dL, HGB 7.5 g/dL, HCT 22.3 %, Ph 7.1, BE -5.6 , PCO2 - 34 mmHg, HCO3 18 mmol/L low, other than these parameters were within the normal range. Since no urine output was observed from the urinary catheterization, a full abdominal computed tomography (CT) was planned. In the CT taken in ED, it was found that the catheter was extended posteriorly from the neighborhood of the bladder base and the catheter continued in the rectum. On the CT image, the patient's urinary catheter was withdrawn, stool contamination was observed at the tip of the catheter, and the patient was evaluated by the general surgery clinic with the preliminary diagnosis of retrovesical/retrourethral fistula, and the operation was planned by the general surgery and urology clinics. The patient, who also received hemodialysis treatment after the operation, was discharged from our hospital with full recovery.

Conclusions: In this case report, we aimed to show that a fistula may develop around the ureteral system after surgery in a case we investigated the etiology of ARF and that urinary system infection may develop due to this fistula(2).

Keywords: acute kidney failure, operation, hemodialysis, elderly patient

P-104

TETRAPLEGIA

Ayşen Zeybek[1], Mehmet Oğuzhan Ay[1], Tuncay Kuş[1], Umut Ocak[1], Halil Kaya[1], Melih Yüksel[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Tetraplegia is dysfunction in the arms, trunk, legs and pelvic organs as a result of motor and/or sensory loss or impairment as a result of injury to the spinal cord in the spinal canal in the cervical region. Cervical spondylotic myelopathy is the most common cause of spastic tetraplegia in later life and is a neurological disorder that occurs due to narrowing of the spinal canal that develops as a result of degenerative changes in the cervical vertebrae. Anterior spinal artery syndrome, dislocation of the atloaxial joint, Arnold Chiari malformation, polio, spina bifida can cause tetraplegia. In this presentation, a tetraplegic case was reported.

Case: A 91-year-old male patient was brought to the Emergency Department with loss of strength that started in his left arm 2 days ago and then affected 4 extremities. He had known COPD disease. His blood pressure was 143/86 mmHg, respiratory rate was 14/minute, fever: 36 degrees celsius, pulse: 76/minute. He was conscious, oriented and cooperative. His Glasgow coma scale score was 15. Light reflex was bilaterally positive and pupillary isochoric. The patient had tetraplegia. There was no acute pathological condition in the patient's Cranial Computed Tomography, Cervical Computed Tomography and Diffusion-Weighted Magnetic Resonance Imaging. There was no history of trauma. In the detailed anamnesis taken from the patient's relatives, it was learned that cervical magnetic resonance imaging was performed 3 weeks ago. When looking at the MR image, lesion areas with intense and homogeneous contrast T1A hypointense signal, which encircles the C2-C3 vertebral corpuscles in the cervical region with a thickness of 13 mm at its thickest point, and extending from places to the posterior spinous processes, were observed, and the findings were evaluated in favor of spondylodiscitis. The patient was admitted to the neurosurgery service.

Conclusions: Most of the patients presenting to the emergency department with tetraplegia are due to cervical injury. Although rare, infections in the cervical region may also cause tetraplegia, as in our case. In tetraplegic patients, detailed examinations should be performed for differential diagnosis.

Keywords: Tetraplegia, Cervical spondylotic myelopathy, neurosurgery

P-114

IF YOU HAVE NO CHANCE, CHANCE FRACTURE!

Çağatay Göktuğ Akbaba[1], GÜLŞAH ÇIKRIKÇI IŞIK[1], Seda Dağar[1], Emine Emektar[1], Yunsur Çevik[1]

[1]SBÜ Ankara Atatütk Sanatoryum EAH

Background and aim: G.Q. Chance, a British radiologist, reported the chance fracture for the first time in 1948. This fracture is a pure bone damage that runs horizontally across the spinous process, pedicles, and vertebral body. The mechanism of this fracture is flexion-distraction forces like those in a vehicle collision when a passenger is secured with a seat belt. The most common site of this fracture is the thoracolumbar region (T10-L2), and the therapy is surgical fixation and open reduction of the deformity with pedicular screws.

Case: A 25-year-old female was transferred to our emergency department by an ambulance after being involved in a car accident, at which she had seated in the back seat. She had no history of comorbidities or obesity. At arrival to hospital her Glasgow Coma Scale was 15, with bilateral reactive pupils and stable vital signs. She reported significant lomber pain. She experienced midline thoracolombar discomfort in the lower torocal area on physical examination, with no weakeness of the lower or upper extremities (muscle powers: 5/5). There was not any sings of bowel or bladder injuries. On lomber computerized tomography there was a horizontal fracture through the spinous process, pedicles, and vertebral body. She consulted with a brain surgeon. Because there was only an osseous damage and no neurological abnormalities, conservative treatment was recommended.

Conclusions: Chance fracture also known as a "seatbelt fracture," and the most common mechanism of injury is a rapid deceleration in a motor vehicle collision, with flexion of the spine over the lap seat belt. The incidence of concurrent intra-abdominal injuries is as high as 50%, especially the bowel perforation and mesenteric laceration. In adults, prognosis of the Chance fracture depends on the degree of kyphosis caused by the injury. Those with less than 15 degrees of kyphosis can be treated successfully with an extension cast/orthosis with good to fair results and no neurologic deficit. Chance fractures with more kyphosis are stabilized surgically, with >90% having good results after one year.Neurological deficits and ligamentous injury are indications for surgery in chance fracture.

Notes (Optional): Chance fracture must be kept in mind for traffic accident patients wearing seatbelt.

Keywords: chance fracture, seatbelt, traffic accident

P-074

DIAGNOSIS OF ANTERIOR MYOCARDIAL INFARCTUS IN THE PATIENT WHO CLAIMS HE HAD SHORTNESS OF BREATH AFTER DRINKING GRAPE JUICE

Oktay Çınar[1], Tuncay Kuş[1], Halil Kaya[1], Mehmet Oğuzhan Ay[1], Melih Yüksel[1], Umut Ocak[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Anterior myocardial infarction results from LAD occlusion and often has the worst prognosis among all infarct types, as it supplies the larger area. The diagnosis is made by q wave formation in the precordial leads (V1-6) and high lateral leads (D1-AVL) with ST segment elevation and reciprocal ST depression in the inferior leads (especially D3 and AVF) in electrocardiogram.

Case: A 50-year-old male patient applied to the emergency department claiming that he had shortness of breath after drinking grape juice at 2 am. He had no known additional disease. The patient had obesity. The patient had dyspneic, tachypneic, sweaty, agitated, foamy white fluid coming from the mouth. The patient did not describe chest pain and insisted that he had shortness of breath, especially because of grape juice in his throat. The patient's blood pressure was 200/100 mmHg, pulse rate was 135/min, saturation was 80%, respiratory rate was 30/min, and fingertip blood glucose was 478 mg/dl. There was ral in the bilateral lungs of the patient on auscultation. Blood gas pH was 7.24, pCO2:40, lactate: 8, HCO3: 17. The patient's treatment was started with the preliminary diagnosis of acute hypertensive pulmonary edema. Inhaler, nitrate and diuretic therapy was started quickly, monitored and CPAP was applied to the patient. ECG revealed ST elevation in V2-5 and AVL, and ST depression in D2, D3, AVF was detected in the ECG of the patient whose agitation regressed with CPAP. The patient was quickly taken to coronary angiography.

Conclusions: Although it is very important to take a detailed anamnesis from the patients, the misdirection of the patients and their relatives should not be given much credit in patient management in the emergency department. The fact that our patient had an undiagnosed diabetes diagnosis may have hidden the symptom of chest pain.

Keywords: emergency department, myocardial infarction, coronary angiography

P-066

A rare cause of upper extremity and facial edema: Subclavian vena thrombosis

Gözde YILMAZ MAKİNECİOĞLU[1], Elif GÜNHAN[1], Suna ERAYBAR[1], Mehtap BULUT[1]

[1]University of Health Sciences Turkey, Bursa City Hospital Emergency Department

Background and aim: Subclavian vena thrombosis(SCVT) is a condition that occurs due to a thrombus in the subclavian vena. Etiologic causes can be classified as primarily induced with effort or idiopathic, and secondarily central venous catheter-associated, respectively. The incidence of secondary thrombus slightly increases with long-term use of CVP in malignancy patients or the usage of complex cardiac devices. SCVT is a highly risky condition in case of mortality and morbidity if cant recognize properly in time and delayed intervene

Case: A 71 YO/F came ED, she has a history of colon Ca prior four years, at the moment her condition has been considered as remission. Last month, she started to experience swelling in her face, and eye and also experienced newly emerged breathing problems prior to her visit to ED. The patient's orientation and cooperation seem intact and her general condition was been Evaluated as mildly appropriate. Her face, eye, and neck region were highly edematose and her face was cyanotic, there was no laryngeal edema, and the rima opening of vocal cords was considered appropriate.Respiration sounds were evaluated as natural.Vital signs Pulse 116,Spo2 96(with O2 support)No pathological findings have been found in brain CT and cervical CT.THORAX CT has revealed a ground-glass specification and in contrast induced cervical CT has revealed a thrombus which is located in the left jugular vena, and it's narrowing the lumen of the vena, again the CT showed no contrast substance in the right jugular and subclavian vena.an upper extremity venous doppler USG, the findings of this doppler revealed as there is no filling in lumens of the right jugular and subclavian.Sol jugular vena lost its response to compression. In the left jugular vena, there was a partial flow. And this finding was considered an upper extremity deep vena thrombus. The patient was admitted to the cardiovascular surgery clinic for further investigation and intervention

Conclusions: The main purpose of this case presentation is to help ED physician's evaluations, and proper diagnosing, in case of upper extremity edema, pain, or feeling of swelling in patients with catheters or a history of trauma

Keywords: Subclavian vena thrombosis, facial edema, emergency department

P-063

Emergency Service Management of the Patient with a Foreign Body (Intraket) in the Dorsal Hand

Abdullah ŞEN[1], Mehmet PAŞA[1], Haydar SEZGİN[1], Mahmut YAMAN[1], Hasan Mansur DURGUN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: We aimed to present a case in which a patient admitted with pain in the dorsal hand of the hand for 10 days, applied to the emergency service with increased pain in the last 3 days, and the cause of the patient's pain was attributed to the fact that the vascular access, which was opened 10 days ago, remained in his vein, and the etiology and treatment approach of this case were evaluated.

Case: A 27-year-old female patient; the general condition was good, oriented, cooperative. The patient applied to us with complaints of pain and redness in the back of his right hand. In the history taken from the patient, it was learned that 10 days ago, he had pain and redness in the dorsal side of the right hand in an external center. In the physical examination of the patient, mild redness and mild edema were observed in a 1x1 cm area in the dorsal right hand. Motor and sensory examination was normal. No finding in favor of foreign body was observed in the X-ray of the patient. Laboratory findings were normal. Superficial USG and color Doppler USG, echogenic focus was observed in the dorsal surface of the right hand (thrombus ?foreign body?). Thereupon, Plastic Surgery (PRC) and Cardiovascular Surgery (CVC) consultation was requested to the patient. The operation was planned for the patient under elective conditions, and he was discharged with antibiotherapy before the operation with outpatient control.

Conclusions: It was discussed that this complication, which is one of the complications that can be caused by many vascular accesses that are opened for treatment and examination purposes every day in emergency services and all other clinics, is caused by not removing the entire intraketine, which is followed up with antibiotherapy in terms of infection, but can be operated.

Keywords: Foreign Body, Intraket, Emergency Service, USG

P-093

The Importance of ABCD2 Score For Stroke Risk

Gokhan Cabar[1], Gulbahar Guler Orucoglu[1], Sevilay Biyikli[1], Mustafa Yasin Okten[1], Mustafa Calik[1]

[1]Gaziosmanpasa Training and Research Hospital

Background and aim: Transient ischemic attack (TIA) is a transient neurological dysfunction that develops mainly due to brain, spinal and retinal ischemia, and usually lasts less than an hour, in which no acute infarct is detected by imaging.The main risk factors for transient ischemic attacks are hypertension, atrial fibrillation, carotid artery stenosis, cardiomyopathy, hyperlipidemia, diabetes, and smoking. The ABCD2 score is used to determine the risk of stroke in patients presenting with a TIA clinic. In our case, we aimed to share the use and importance of ABCD2 score in a patient with TIA clinic.

Case: A 65-year-old female patient applied to our emergency department with the complaint of sudden inability to speak for the last 1 hour. The patient had a known history of type 2 diabetes. At her admission, her blood pressure was 160/95 mm/Hg, her fingertip blood glucose was 95 mg/dl, and her other vital signs were within normal limits. In her neurological examination, she had no signs except that her speech was aphasic. Other system examinations were normal. The cranial imaging was taken due to the fact that the blood tests did not show any pathology that could explain these symptoms. No bleeding or additional pathology was observed in the cranial tomography. Diffusion MRI revealed isointense punctate foci in bilateral corona radiata and left parietal deep white matter so it was thought that is subacute ischemia.The patient with an ABCD2 score of 6 (high risk), was transferred to the neurology ward for treatment.

Conclusions: In patients presenting with complaints such as speech disorder, all neurological examinations should be evaluated, and after metabolic or infective pathologies are excluded, the patient should be evaluated together with the necessary imaging against possible stroke/gia risk, and the ABCD2 score, which is practical to use, should be used to determine the possible stroke risk, and patients should be consulted to neurology clinic in suspicious cases.

Keywords: tia, stroke, speech disorder, abcd2, Transient ischemic attack

P-021

Confusion And Respiratory Distress After Possible Methane Inhalation.

Engin Deniz Arslan[1], Canay Demirtaş[1], Esra Sönmez Üçkapı[1], Süleyman Kürşad Özel[1]

[1]Antalya Eğitim Ve Araştırma Hastanesi

Background and aim: Methane; is an organic compound that exists as a gas at natural temperature. It is used in the chemical industries and the energy sector. Methane gas, the amount of which has increased in nature with the industrial period, is odorless [1]. Poisonings and gas explosions originating from coal mines are presented in previously published case reports [2, 3] . In this case, the effects of methane exposure as a result of inhalation will be discussed.

Case: After falling into a water well, a 57-year-old male patient remained in the well for 15 minutes and lost consciousness for a short time. Shortness of breath was observed in the patient who was rescued from the well and brought to the hospital.No symptoms other than shortness of breath were observed in the patient. The patient have COPD and using inhalers salbutamol and budecort for COPD.Neurological examination of the patient was intact, conscious, cooperative, oriented, GCS: 15. On lung auscultation, diffuse rhonchi and coarse rales in the basals were heard. Other system examinations were normal.Oxygen saturation:86 other vital signs were stable at admission.The patient was started on oxygen support, inhaled bronchodilator therapy, and systemic and inhaled steroid therapy. CPAP was applied to the patient whose dyspnea did not regress. Hyperbaric oxygen therapy was not applied to the patient whose shortness of breath regressed after CPAP, lung sounds returned to normal and vitals were stable. He was discharged with recommendations.

Conclusions: In our case, CPAP was applied in the emergency room in the treatment of a patient who had temporary loss of consciousness after inhalation, and then had respiratory difficulties and COPD. The patient was given bronchodilator agents and systemic and inhaled steroids. During the follow-up, his symptoms regressed and he was discharged with normal breathing pattern in room air.It should be kept in mind that severe respiratory tract damage, which can lead to acute respiratory distress syndrome and then death, can meet us after progression in acute respiratory distress, and that aggressive treatments in the early period will protect us from intubation and shorten the hospital stay of the patient.

Keywords: methane ınhalatıon

P-005

A RARE, MORTAL DIAGNOSIS IN THE EMERGENCY DEPARTMENT: STEVEN-JOHNSON SYNDROME

Ramis Gökçe[1], İbrahim Altundağ[2], Serkan Kaygusuz[1], Burcu Genç Yavuz[1], Şahin Çolak[1], Mustafa Ahmet Afacan[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Steven-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are two members of a rare but high-mortality group of diseases characterized by fever, diffuse epidermal necrosis and generalized weakness that usually manifesting as a drug reaction.The most commonly accused drugs of causing pathology are beta lactam and sulfonamide group antibiotics, antiepileptics, allopurinol, nonsteroidal anti-inflammatory drugs, nevirapine and thioacetazone.1 The other rare causes include viral patogens such as herpesvirus, mumps, coxsackie virus and Ebstein Barr virus.In this article, we aim to present a case of toxic epidermal necrolysis due to allopurinol intake and to emphasize that skin findings may be associated pathologies with high mortality rates such as SJS and TEN.

Case: A 72-year-old male patient with chronic obstructive lung disease(COPD), heart failure and atrial fibrillation(AF) was admitted to the emergency department due to widespread rashes on the abdomen, chest and back that started 1 week ago, white plaques on the oral epithelium that started 2 days ago and high fever that started 2 days ago.Vital parameters: Fever:37.8oC, blood pressure:85/55 mmHg, pulse:70/min, O2 saturation:83% and respiratory rate:35/min.The patient had no infective symptoms such as dyspnea, cough, sputum, dysuria and diarrhea.On abdominal examination, there was no tenderness, respiratory sounds were bilaterally equal, no rales or ronchi were heard.There was diffuse purpura-like rashes on the chest, abdomen and back, bullous lesions on the back (Figure 1) and white plaques on the oral epithelium and tongue.Laboratory test: WBC: 5.3x103/µl, NEU: 65% CRP: 45 mg/l.The patient's anamnesis was deepened and he was using allopurinol (first time) since 3 weeks. Allopurinol was discontinued and supportive treatment was given with a prediagnosis of SJS.As the patient's SCORTEN2 score was 2, he was transferred to the intensive care unit.

Conclusions: SJS and TEN are rare pathologies with high mortality.Anamnesis, physical examination and especially the history of suspicious medication started in last 3 weeks should be questioned for the diagnosis of SJS.The aim in the first intervention is to provide analgesia,prevent secondary infections,decrease heat loss,and maintain fluid-electrolyte balance.3Mortality risk should be calculated according to the SCORTEN score and high-risk patients should be followed up in intensive care units.

Keywords: allopurinol, Steven-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), SCORTEN score, drug reaction

P-073

TRIFASICULAR BLOCK

Hasan Hüseyin Sarkı[1], Ebru Çetin Kenan[1], Halil Kaya[1], Umut Ocak[1], Mehmet Oğuzhan Ay[1], Melih Yüksel[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: The delay in ventricular depolarization caused by ischemic, metabolic, infective, structural, and drug-related causes in the cardiac conduction system is called bundle branch block. In the involvement of the AV node and beyond, the blocks of the right and left anterior-posterior branches separately or together are called incomplete or complete trifascicular block. It is difficult to make a definitive diagnosis on ECG alone. The patient may have complaints such as dizziness, chest pain, syncope. Pacemaker indication is available for patients with symptomatic incomplete or complete trifascicular block. Early diagnosis and treatment of these patients can prevent the increase in mortality and morbidity.

Case: A 92-year-old male patient with a known diagnosis of hypertension applied to our emergency department with complaints of decreased urine output for 2-3 days, headache, dizziness, weakness, and loss of appetite. On arrival, his blood pressure was 90/60 mmHg, heart rate was 159/min, and SPO2: 97%. The patient was conscious, GCS 15, oriented-cooperative, no lateralizing signs, motor and sensory examination was normal. The patient's ECG showed right bundle branch block, left axis deviation, and 1st degree AV block (incomplete trifascicular block). He was consulted to cardiology. The patient, who was thought to need a pacemaker with a preliminary diagnosis of trifascicular, was admitted to the cardiology intensive care unit for follow-up and treatment.

Conclusions: Clinical follow-up of patients with cardiac block is important. It can be fatal if not diagnosed and treated early. It should be kept in mind that sometimes cardiac block can be seen in patients who apply to the emergency department with non-specific complaints, as in our case.

Keywords: trifascicular block, emergency deparment, cardiology

P-138

GHOST BULLET; TRANSCERVICAL INJURY DUE TO A GUNSHOT

Ramis Gökçe[1], Serkan Kaygusuz[1], Batuhan Gümüşay[1], Sinem Doğruyol[1], Burcu Genç Yavuz[1], Mustafa Ahmet Afacan[1], Şahin Çolak[1]

[1]S.B.Ü. Haydarpaşa Numune Eğitim ve Araştırma Hastanesi

Background and aim: As a natural consequence of the increasing incidence of gun-related violence all over the world, injuries at the cervical level due to gunshot wounds (GSW) have also increased. We aimed to explain the emergency department (ED) management of a transcervical GSW injury.

Case: A 47-year-old male trauma patient, with stable vital signs, was brought ED by ambulance. It was reported that the patient was found lying on a bench. There was a 1 cm tissue deficit in the anterior neck region and air leakage was observed from this area. There was also loss of motor power in both lower extremities. Full spinal immobilization had been provided when he was arrived. Intravenous contrast-enhanced computed tomography (CT) imaging showed a burst fracture at the C7 level and free air in the subcutaneous neck and mediastinum (Figure 1). The patient also had pneumocephalus and no additional injuries except that were detected. However, since the images were suggestive of GSW, the cervical collar was removed after CT scan and examination revealed an GSW exit hole posteriorly in the cervical region. It was lately found out that the patient was diagnosed with Multiple Sclerosis and had suicidal thoughts. After the patient was stabilized and a permanent airway was established, he was transferred to the intensive care unit.

Conclusions: Transcervical GSW refers to all bullet injuries, that have passed through the cervical structures and exited. Transcervical antero-posterior injuries are reported to be the most destructive injuries considering the damage to anatomical structures. Cervical collars, which we use to stabilize the neck in patients with penetrating trauma, may prevent us from recognizing the first signs of a life-threatening injury. As in our case, in patients with cervical GSW, the posterior exit wound may be detected lagged because of collars. This demonstrated the importance of whole-body examination in the primary survey of the traumatized patient. In such cases, after manual cervical stabilization is achieved, the cervical collar should be completely removed, and a complete physical examination should be performed. Our case report helped us to realize the importance of this situation.

Keywords: Cervical trauma, Gunshot wound, Neck, Trauma

P-023

A Case of 3rd Degree A-V Block Developing Secondary to Hyperkalemia

Mehmet Yavuz Danışık[1], Yasin Burak Yılmaz[1]

[1]Ankara Şehir Hastanesi Acil Tıp Kliniği

Background and aim: Cases of 3rd degree A-V block secondary to acute renal failure are rare clinics. In this case, we examined heart block due to acute renal failure in a 67-year-old patient who applied to an external center with chest pain. Since the patient was desaturated and hypotensive, he was intubated and sent to our emergency department.Heart block has a rare prevalence of 0.04% in the general population.

Case: A 67-year-old female patient with a known history of diabetes, heart failure, hypertension, bypass and ischemic cerebrovascular accident applied to an external center with chest pain. The patient was hypotensive and desaturated during the referral, and was intubated and brought to our emergency department. At the patient's arrival, blood pressure was 75/45, pulse was 33, and ECG was observed; (Picture 1) Inotropic treatment was started by inserting a temporary transcutaneous pacing in the patient who had 3rd degree A-V block and had a hypotensive course. He was consulted to cardiology in the early period. In this process, the patient's blood results came out. It was observed that the patient had hyperkalemia secondary to acute renal failure and decompensated metabolic acidosis. ECG after dialysis was found to be in normal sinus rhythm, transcutaneous pace was removed from the patient who became hemodynamically stable, and cardiology opinion was taken again. There was no need for permanent pacing, and the patient was hemodynamically stable. The patient in need of intensive care was consulted and transferred to the multidisciplinary intensive care unit.

Conclusions: Cardiac rhythm disorders secondary to acute renal failure have rare but extremely fatal clinics.We reviewed a case where a patient who presented with simple complaints suddenly became unstable and his vital functions improved dramatically after dialysis.Symptoms secondary to low cardiac output and slow ventricular response are different; fatigue, dyspnea, chest pain, or syncope may occur. In this case, this type of heart block could have been encountered secondary to drug and substance use, such as an ischemic cardiac event.

Notes (Optional): Metabolic causes should also be investigated, and drug and history should be questioned in detail.We emphasized the importance of early diagnosis and treatment of acute renal failure.

Keywords: Acute renal failure, 3rd degree A-V block

P-081

PERITONSILLAR ABSCESS PRESENTİNG WİTH SORE THROAT

Büsra Koc[1], Kemal Sener[1], Ertugrul Altug[1], Semih Korkut[1]

[1]Republic of Turkey, Ministry of Healthy Başaksehir Çam and Sakura State Hospital

Background and aim: Peritonsillar abscess is the most common deep infection of the head and neck that occurs in adults. It is typically caused by a combination of aerobic and anaerobic bacteria. Peritonsillar abscess is a complication of acute tonsillitis.-Most commonly isolated bacteria in peritonsillar abscess Streptococcus pyogenes (group A beta hemolytic streptococcus)-Despite being the most common complication of tonsillitis, PTA is still relatively uncommon. Peritonsillar abscess is more common in young adults, with peak incidence between the ages of 20-40 years In the pediatric population, PTA tends to affect older children – it is uncommon to find a case in a child under 10 years old.

Case: HISTORY:A 25-year-old male presented with a complaint of sore throat and inability to open his mouth. Family history: Both parents alive and well Medications: No history of drug use or chronic disease. Physical examination: -Fever-Trismus-Deviated uvula-Peritonsillar region edematous hyperemic and painful on palpation Contrast CT: In the left tonsillar region, a collection of 3.5x3 cm in size with a central hypodense appearance, consistent with an abscess, is observed. The appearance was evaluated as compatible with peritonsillar abscess. Diagnosis and treatment: The patient, who was diagnosed with peritonsillar abscess, was admitted to the ENT service, and intravenous antibiotic therapy was given for 5 days. His general condition is good, his vital signs are stable, his oral intake is good, his uvula is in the midline, there is no trismus. He was discharged with his prescription and outpatient clinic appointment.

Conclusions: Patients with peritonsillar abscess appear ill and report malaise, fever, progressively worsening throat pain, and dysphagia. The sore throat is markedly more severe on the affected side. Oropharyngeal examination should be done carefully in patients with swallowing difficulties.

Keywords: acute tonsillitis, peritonsıllar abscess, dysphagia

P-119

Her Ateş Enfeksiyon Değildir: Nadir Görülen Bir Ateş Nedeni

Yasin Ergin[1], Ömer Jaradat[1], Hacı Mehmet Çalışkan[1]

[1]Acil Tıp Anabilim Dalı, Kırşehir Ahi Evran Üniversitesi Tıp Fakültesi, Kırşehir, Türkiye

Arka plan ve amaç: Nöroleptik malign sendrom(NMS), antipsikotik ajanların kullanımı ile ilişkili ve mental durum değişikliği, rijidite, ateş ve disotonomiden oluşan bir klinik sendromla karakterize, yaşamı tehdit eden nörolojik bir acil durumdur[1, 2].

Vaka: 19 yaşında bilinen serebral palsi tanılı olan ve Risperidonkullanan erkek hasta 8 saattir olan ateş ve bilinç bulanıklığı şikâyeti ile 112 tarafından acil servise getirildi. GKS: 10 olan hastanın genel durumu kötü, kooperasyon ve oryantasyonu yoktu. TA:100/70 mmHg,nabız:150/dk, O2 satürasyonu:90, ateş: 40,9 idi.Fizik muayenede IR+/+,4 ekstremitede rijidite mevcut. Ense sertliği değerlendirilemeyen hastanın diğer sistem muayenelerinde özellik yoktu. EKG sinüs taşikardisini gösteriyordu. Kraniyel görüntülemelerde patolojik değişiklik görülmedi. Kan sonuçlarında WBC 6.4910^3/uL, CRP: 0,9 mg/dL, CK:1704U/L, LDH:410 U/L, diğer tetkik sonuçları normal aralıkta idi. İdrar tetkiki normal aralıktaydı. Covid hızlı test sonucu negatif çıktı.Hastanın öyküsü derinleştirildiğinde 5 gün önce Risperidon1 mg 1x1'den, 1mg 2x1'e çıkarıldığı öğrenildi. Bunun üzerine yapılan lomber ponksiyonda patolojik bulgu saptanmadı.Hidrasyon ve antipiretik tedaviye rağmen ateş ve nabızda düşme olmayan hasta NMS ön tanısıyla YBÜ ye yatırıldı. YBÜ takiplerinde hastanın CK değerinin 19778U/L e kadar yükseldiği ve diyalize alındığı öğrenildi.1 hafta sonra CK değerleri düşmeye başlayan hasta servise alınıp 14 gün sonra taburcu edildiği öğrenildi.

Kararlar: NMS tanısı, ilişkili bir ilaç alan ve tipik bir klinik sendrom geliştiren bir hastada konur.NMS için tanısal bir test olmamasına rağmen, potansiyel NMS'li hastaların değerlendirilmesinde testlerin önemli bir rolü vardır. Tipik laboratuvar anormallikleri klinik tanıyı doğrulamaya yardımcı olur, bazı testler diğer durumları dışlar ve hastaları NMS komplikasyonları açısından izlemek için kullanılır[3]. Olası NMS'li hastalarda, yapısal beyin hastalığı ve enfeksiyonunu dışlamak için beyin görüntüleme çalışmaları ve lomber ponksiyon gereklidir [4].NMS'li hastaların yönetimi, klinik şiddet ve tanısal kesinlik hiyerarşisine dayanmalıdır [5, 6]. Belirtiler şiddetli olduğunda yoğun bakım ünitesi takibi ve tedavisi gereklidir. NMS'de nedensel ajanın uzaklaştırılması en önemli tedavidir. NMS tanısı alan hastalarda genelde çoklu ilaç kullanımı vardır[7]. Bizim vakamızda ise hasta tek ilaç kullanmaktaydı. Mortalite, doğrudan hastalığın disotonomik belirtilerinden ve sistemik komplikasyonlardan kaynaklanır. Sonuç olarak her ateş enfeksiyon değildir,nedeni açıklanamayan ateş durumunda öykü derinleştirilmeli ve ayırıcı tanıda NMS akılda tutulmalıdır.

Notlar (Opsiyonel): REFERANSLAR:1. Shalev A, Hermesh H, Munitz H. Mortality from neuroleptic malignant syndrome. J Clin Psychiatry 1989; 50:18.2.Modi S, Dharaiya D, Schultz L, Varelas P. Neuroleptic Malignant Syndrome: Complications, Outcomes, and Mortality. Neurocrit Care 2016; 24:97.3.Gurrera RJ, Caroff SN, Cohen A, et al. An international consensus study of neuroleptic malignant syndrome diagnostic criteria using the Delphi method. J Clin Psychiatry 2011; 72:1222.4.Carbone JR. The neuroleptic malignant and serotonin syndromes. Emerg Med Clin North Am 2000; 18:317.5.Velamoor VR. Neuroleptic malignant syndrome. Recognition, preventionand management. Drug Saf 1998; 19:73.6.Caroff SN, Mann SC, Keck PE Jr. Specific treatment of the neuroleptic malignant syndrome. Biol Psychiatry 1998; 44:378.7.Prevention and treatment of heat injury. Med Lett Drugs Ther 2003; 45:58.

Anahtar Kelimeler: Ateş, Antipsikotik, Nöroleptik Malign Sendrom, Rijitide

P-071

BATIN SAĞ ÜST KADRAN AĞRISINDA AORT DİSEKSİYONU TEHLİKESİ

Engin Deniz, Fırat , Emine Arslan , Yücel , Çelik Semiz[1]

[1]antalya eğitim ve araştırma hastanesi acil tıp

Arka plan ve amaç: Ölümcül kardiyovasküler acillerin başında gelen akut aort diseksiyonu, ilk 48 saat içinde tanı ve tedavide gecikme durumunda, her bir saat için mortalitede %1 kadar artışa neden olan bir hastalıktır. Özellikle ileri yaş ve erkeklerde, kadınlara oranla daha sık görülen bu hastalık grubunda, tanının hızlı konup tedaviye başlanmaması durumunda hayatı tehdit edici sonuçlar doğmaktadır. Tipik şiddetli göğüs ve sırt ağrısı yanında, hastalar atipik şikayetlerle de acil servislere başvurabilmektedirler. Bel ağrısı, karın ağrısı, ekstremitede iskemik bulguları ve nörolojik bulgular atipik bulguların örneklerindendir. Risk grubu olan hastaların acile atipik bulgularla başvurmaları durumunda da akut aort diseksiyonu tanısı mutlaka akla gelmeli, buna yönelik uygun tetkik ve görüntüleme yöntemleri istenmelidir. Bu çalışmada sağ üst kadran ağrısı ile acile gelen, yapılan incelemelerinde aort diseksiyonu saptanan bir olgu sunularak, konuyla ilgili literatür gözden geçirilecektir.

Vaka: : 65 yaş erkek hasta, acil servise batında sağ üst kadran ağrısı ve terleme şikâyeti ile başvurdu. Hastanın bilinen HT, KBH, geçirilmiş CABG ve EVAR operasyonu mevcuttu. Bilinç açık koopere, oryante, Glaskow Koma Skoru (GKS) 15'ti. Vital bulguları; Kan Basıncı 150/90 mmHg, nabız 62 atım/dakika, ateş 36,6 derece olarak saptandı. Muayenesinde sağ üst kadran hassasiyeti olup kusması mevcuttu. Hastanın çekilen EKG si nsr iskemik değşiklik yoktu alınan tam kan, biyokimya, troponin sonuçları; kre: 2.5 hgb: 11.6 troponin : 33 olarak sonuçlandı. Daha sonrasında ise sırtına ve sağ yan bölgeye uzanan ağrısı olunca aort diseksiyonundan şüphelenildi. Görüntülemesinde ise retroperitoneal bölgeye uzanımı olan 13x10.5x9 cm boyutlarında hematomun sağ iliak arterden kaynaklandığı görüldü. K.V.C. bölümüne konsülte edildi. Operasyon planlandı ancak o sırada kardiyak arrest olan hastada cpr ile spontan dolaşımı geri dönmedi.

Kararlar: Akut aort diseksiyonu nadir görülen, acil tanısı konup tedavisi başlanması gereken ve mortalitesi yüksek olan klinik durumların başında gelmektedir. Klinik olarak hastaların şikayetleri benzer olmakla birlikte atipik şikayetlerle gelen hastalar da olabilmektedir. Tipik ağrısı olmadan kliniğine başvuran hastalar kayda değer sayıdadır.

Notlar (Opsiyonel): Akut aort diseksiyonu nadir görülen, acil tanısı konup tedavisi başlanması gereken ve mortalitesi yüksek olan klinik durumların başında gelmektedir. Klinik olarak hastaların şikayetleri benzer olmakla birlikte atipik şikayetlerle gelen hastalar da olabilmektedir. Tipik ağrısı olmadan kliniğine başvuran hastalar kayda değer sayıdadır.

Anahtar Kelimeler: aort diseksiyonu karın ağrısı acil

P-145

THE IMPORTANCE OF FAST USE IN PEDIATRIC TRAUMA

Burak Özçelik[1], İbrahim Altundağ[2], Burcu Genç Yavuz[1], Şahin Çolak[1], Kaan Yusufoğlu[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Abdominal trauma accompanies 25% of major traumas in the pediatric population.The most frequently injured organ in pediatric abdominal trauma is the spleen.Knowing the injury mechanism helps the clinician in diagnosing specific injuries.Traumas do not require surgery in 95% of patients.The gold standard imaging method in the diagnosis of intra-abdominal injuries is computed tomography (CT)(1).However, focused assessment with sonography(FAST) should be performed in trauma in cases where patient transport and therefore CT scan is not possible, such as hemodynamic instability.In this article, we will present a case of pediatric abdominal trauma diagnosed with FAST.

Case: A 13-year-old male patient was brought to the emergency department by ambulance due to falling off a bicycle.He hit his stomach on the handlebar of his bike as he fell. GCS was 15.In his vital parameters, fever:36.5oC, blood pressure:70/48 mmHg, heart rate:140/min, SpO2:98%, respiratory rate:20/min were detected.On physical examination, diffuse tenderness, defense and rebound were found in the abdomen. The other physical examination findings were normal, except for ecchymosis consistent with the handlebar mark on the left lateral of the umlicus.Simultaneously, the patient was evaluated with bedside FAST and hypoechoic free fluid was observed around the bladder. Antibiotherapy was administered.The patient, who remained hypotensive despite hydration was taken to an emergency laparotomy.Duodenal perforation and surrounding hematoma were detected and repaired in laparotomy, and the patient was discharged with full recovery.

Conclusions: FAST is an ultrasound protocol developed to evaluate the hemoperitoneum and hemopericardium in the trauma patient.Studies have shown that FAST has a sensitivity of 85% to 96% and a specificity exceeding 98%.In hypotensive trauma patients, the sensitivity of the FAST examination approaches 100%.Advanced Trauma Life Support (ATLS) incorporates FAST into its trauma algorithms.Although the benefit of FAST in the pediatric age group is more limited than in the adult population; the advantages of FAST such as usability, ease of use and reproducibility at the bedside reveal its importance in cases where CT cannot be performed(2).As in this case, the shortening of the time to diagnosis and surgery has shown the benefit and necessity of the use of FAST in the pediatric age group.

Keywords: ATLS, FAST, pediatric trauma, hemodynamic instability, urgent laparotomy

P-155

Case Report of Priapism

Ragıp Çetinkaya[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Mahmut Altaş[1], Huda Almadhoun[1], Muhammed Yavuz Şeker[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Priapism is defined as a persistent and painful erection lasting longer than four hours without sexual stimulation. Based on episode history and pathophysiology, priapism is classified into two subtypes: ischemic (low-flow), non-ischemic (high-flow. Ischemic priapism is characterized by a persistent, painful erection with remarkable rigidity of the corpora cavernosa caused by a disorder of venous blood outflow from this tissue mass, and is similar to penile compartment syndrome. Non-ischemic priapism is characterized by a painless, persistent nonsexual erection that is not fully rigid and is caused by excess arterial blood flow into the corpora cavernosa. In this case report, we aimed to present priaspism

Case: A 34-year-old male patient was admitted to the emergency deparment with a complaint of 30-hour-long painful erection. The patient's medical history was no sign of drug usage, corporal injections, malignancies, or trauma. Physical examination was painful, rigid and complete erection in penis. After physical examination, urology was urgently called. Corporol blood gas analysis was venous pattern(pO_2<30 mmHG, pCO_2>60 mmHG and pH<7.25). Urology tried cavernosal devascularization that failed.After that they tried intracavernosal injection but also this attemp was failed. They offer surgical shunting but the patient rejected, he signed treatment rejection paper and left emergency department.

Conclusions: Priapism, a relatively uncommon disorder, is a medical emergency. Although not all forms of priapism require immediate intervention, ischemic priapism is associated with progressive fibrosis of the cavernosal tissues and erectile dysfunction. Careful history and physical examination are often sufficient to make the diagnosis Urological clinicians should address this emergency condition to achieve successful treatment. The goal of the management of priapism is to achieve detumescence of persistent penile erection and to preserve erectile function after resolution of the priapism.

Keywords: Priapism, Penile Erection, Ischemic

P-124

Dabigatran Kullanımına Bağlı Koagülopati ve Aşırı Yüksek PT/INR

Arife Erdoğan[1], Hayriye Gönüllü[2]

[1]İzmir Bakırçay Üniversitesi Çiğli Eğitim ve Araştırma Hastanesi
[2]İzmir Bakırçay Üniversitesi

Arka plan ve amaç: Dabigatran, atriyal fibrilasyonu olan hastalarda inme profilaksisi için onaylanmış bir oral direkt trombin inhibitörüdür. Dabigatran kullanımı birçok faydası nedeniyle hızla artmıştır. En önemli artı özelliği absorpsiyonun bireyler arası daha az değişken olmasıdır ve bu benzersiz özellik, sık laboratuvar izlemesini önlemektedir. Bununla birlikte, dabigatran kullanımının güvenliği ile ilgili sürekli endişeler vardır.

Vaka: 81 yaşında erkek hasta hematemez nedeniyle acil servise getirildi. Hastanın aynı zamanda hematürisi de mevcuttu. Yapılan tetkiklerinde; Protrombin zamanı (PT) 105 saniye, aktive parsiyel tromboplastin zamanı (aPTT) 179 saniye, INR değeri ölçülemeyecek kadar yüksek olarak geldi. Diğer kan tetkikleri normaldi. Alınan anamnezde hastanın atriyal fibrilasyon nedeniyle dabigatran kullanıldığı öğrenildi. Aktif kanaması olduğu ve INR değeri çok yüksek olduğu için, TDP tranfüzyonu yapıldı. Takibinde INR, PT ve aPTT değerleri düşmeye başladı.

Kararlar: Bu vaka, çok yüksek PT/INR ile dabigatran kaynaklı bir koagülopatiyi göstermektedir. Dabigatran kullanımına bağlı olarak rapor edilen kanama vakaları vardır. Ancak bu vakaların çoğunda bu duruma böbrek yetmezliği eşlik etmektedir. Bizim olgumuzda böbrek yetmezliği bulunmamaktadır. Mevcut kılavuz, dabigatran alan hastalar için rutin PT/INR takibinin gerekli olmadığını göstermektedir. Ancak dabigatranın antikoagülan etkisini izleyecek güvenilir bir laboratuvar çalışması olmadığından, özellikle yaşlı ve kanama riski yüksek hastalarda kanama riskini azaltmak için INR, PT ve aPTT'yi içeren koagülasyon panelinin kontrol edilmesi faydalı olabilir.

Anahtar Kelimeler: dabigatran, INR, PT

P-030

Patient Presenting to the Emergency Department with Chest Pain and Fever

Ahmet Faruk YILDIZ[1], Mustafa Sabak[1], Nihat Bakırcı[1]

[1]Department of Emergency Medicine , Gaziantep University Faculty of Medicine ,Gaziantep,Turkey

Background and aim: Dengue is a febrile illness caused by infection with any of the four dengue serotypes (DENV) transmitted by two types mosquitoes when sucking blood. Over 390 million DENV infections are estimated to occur each year, of which 96 million are clinically evident. Infection may be asymptomatic or present with a wide range of clinical manifestations, ranging from a mild febrile illness to a life-threatening shock syndrome. Patients in the critical phase are mostly elderly and pediatric patients. Vascular leakage, hypoproteinemia, hemoconcentration, and pleural effusion, ascites, mucosa, and skin bleeding are seen in these patients. Narrowed pulse pressure, persistent vomiting, right upper quadrant pain, lethargy, restlessness are signs of worsening. For severe dengue fever. It should be one of the symptoms such as shock bleeding due to plasma escape, respiratory distress.

Case: A 29-year-old Bangladeshi male patient presented with chest pain, fever, fatigue, and abdominal pain unrelated to exertion, which lasted for 4 days.The patient's vitals were: HR: 115, BP: 115/85 Spo2: 96 RT: 14 ,Fever: 38.5.Physical Examination: In the abdominal examination, there is no abdominal defense, no rebound, the patient with tenderness in the upper quadrants. In the thorax examination, both hemithorax are equally involved in respiration. No rash was observed in the inspection examination. Anamnesis: It was understood that he had been residing in Turkey for 5 years, went to Bangladesh 2 months ago, and entered Turkey 5 days ago.Investigations: There is no ischemic finding in normal sinus rhythm on ECG. The PAAC appearance was normal, laboratory tests showed increased liver functional tests , borderline troponin elevation and low plt. The patient was consulted with infectious diseases and hospitalized. The patient was hospitalized with a preliminary diagnosis of Dengue fever. The patient received lactated ringer and pantoprazol in the ward. In the ward, bacterial culture tests and covid pcr test were negative. Malaria test was negative and then he was discharged home with recovery from his illnesses.

Conclusions: The importance of interrogating travel history and investigating common diseases in the region of travel in patients presenting with fever and other symptoms was seen in this case.

Notes (Optional): Eventually, diagnosis was Dengue Fever.

Keywords: Fever, Chest Pain, Viral Infections, Dengue Fever

P-116

A Rare Case: Talus Lateral Process Fracture

Funda Aydın[1], Emre İslam[1], Ebru Çetin Kenan[1], Melih Yüksel[1], Mehmet Oğuzhan Ay[1], Umut Ocak[1], Halil Kaya[1]

[1]University of Health Sciences, Bursa Faculty of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Lateral and posterior process fractures of the talus are rare and often overlooked due to the low level of suspicion and difficulty in interpretation on plain radiographs. Undiagnosed fractures can cause persistent pain and decreased function.Lateral process fractures are usually the result of forced dorsiflexion and inversion of the fixed pronation foot. These are also commonly known as snowboard fractures.The usual mechanism of injury is forced hyperplantar flexion and inversion causing direct compression of the posterior talus, or an avulsion fracture caused by the posterior talofibular ligament. CT scans are helpful in cases of high clinical suspicion.

Case: A 23-year-old male patient had no known additional disease or pathological fracture history. He applied to the emergency room with the 112 ambulance with the complaint of swelling and pain in the right foot after falling from a walnut tree 1 day ago. The patient was accepted as high-energy trauma and placed in the red area. The systemic physical examination findings of the patient with isolated right foot trauma were normal. There is widespread swelling in the right foot and limitation of joint movement. Capillary refill time was normal. There was tenderness on the lateral ankle due to a possible fracture. Routine laboratory results were unremarkable. Brain, cervical, thorax, and abdomen tomography were normal. No fracture was observed in the x-ray image of the patient. Ankle CT was requested for detailed examination.A talus lateral process fracture was detected in the CT images of the patient. The patient was consulted to the orthopedics department. The patient was admitted to the orthopedic service for the operation decision.

Conclusions: Lateral and posterior process fractures of the talus are rare, but they are important injuries that can cause significant disability in cases of missed diagnosis, delayed or inadequate treatment. Early diagnosis and timely treatment of these fractures helps prevent long-term complications such as malunion, nonunion, or severe subtalar joint osteoarthritis. In such high-energy foot traumas admitted to the emergency department, talus fracture should also be considered and should be scanned with CT in the presence of clinical suspicion.

Keywords: emergency department, talus fracture, trauma

P-148

REEVALUATE, PENETRATING THORAX TRAUMA

Hacı Mehmet OKUDUCU[1], Seda Dağar[1], İzzettin Ertaş[1], Gülşah Çıkrıkçı Işık[1], Emine Emektar[1], Yunsur Çevik[1]

[1]SBÜ Ankara Atatürk Sanatoryum EAH

Background and aim: INTRODUCTION:Penetrating thoracic traumas encountered in emergency departments might be in different severity, from superficial wounds to wounds that cause hemodynamic instability which require immediate life-saving interventions. Even stable patients with penetrating thoracic injuries can deteriorate rapidly, so a focused assessment, observation and follow-up with serial evaluation must be performed to assess for life-threatening conditions. Despite most penetrating injuries don't require major surgical intervention, some patients may need emergent surgery. In this case report, we aimed to emphasize the important points in the management of those patients.

Case: A 52-year-old male patient was brought to ED by 112 with a backstabbing. The patient was in the prone position, with the knife handle at the level of the right posterior axillary line. He was tachypneic, agitated and sweaty. At arrival blood pressure:140/80 mmHg, pulse:100 beat/min Fever:36.6 and SpO2:%89. Bedside USG showed loss of left lung pleural shift movement and barcode finding in M-mode. The thoracic surgeon was consulted, and blade removed at operating room. After operation patient follow up done at intensive care unit (ICU). On postoperative control thorax CT, a hemorrhagic effusion at a depth of approximately 20 mm in the right hemithorax and hydropneumothorax at the right lung lower lobe anterobasal area was observed. Scapula and posterior rib fractures were present. A 10 French pleurocan was inserted and connected to the underwater drainage. During ICU follow-ups pO2 returned to normal in the room air, and the patient was discharged.

Conclusions: Penetrating thoracic injuries are common traumas in the emergency department. Injuries requiring major cardiovascular surgery are rare, but they might be mortal. Therefore, those patients should be observed carefully in ED for bleeding from major vascular structures, hemothorax, pneumothorax, rib, and scapula fractures. Also at penetrating injuries, if penetrating objects still stands at wound during ED arrival, it should not be removed at ED, it must be removed by thorax surgeon at the operating room.

Notes (Optional): For thorax penetrating injuries, if penetrating objects still stands at wound during ED arrival, it should not be removed at ED, it must be removed by thorax surgeon at the operating room.

Keywords: Thorax trauma, Penetrating object

P-085

Intracranial Bleeding

Hazel Deniz Erdoğan[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Abdullah Taşçı[1], Bülent Yılmaztürk[1], Yeşim Aylin Kalafat[1], Burak Alper Mollaoğlu[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Patients with headache unrelated to trauma constitute approximately 2 percent of emergency department (ED) visits,though some studies suggest a rate as high as 4 percent.The differentiation of the small number of patients with life-threatening headaches from the overwhelming majority with benign primary headaches (ie,migraine,tension,or cluster) is an important problem in the ED.Failure to recognize a serious headache can have serious consequences,including permanent neurologic deficits,loss of vision,and death.A careful history and physical examination remain the most important parts of the assessment of the headache patient;they help the clinician to determine whether the patient is at significant risk for a dangerous cause of their symptoms and what additional workup is necessary.In this case we aimed to present our case of intraparenchymal hemorrhage in a patient describing the most severe headache of his life.

Case: A 31-year-old male patient presented with a pressure-type headache that started from the left neck and spread to the left half of the head for 2 days.There was no history of trauma.The patient's history was unremarkable.There was no regular drug use.He had a 7-8 pack-year smoking history.In her family history, she stated that her mother and aunt had primary hypertension.The patient's vitals were stable.No pathology was detected in the physical examination.The patient,who declared that it was the most severe headache of his life,which was not relieved by analgesia,showed intracerebral hematoma and tetraventricular hemorrhage in the left nucleus caudatus caput in his brain computed tomography.The patient was admitted to the neurology clinic for follow-up and treatment.

Conclusions: The absence of similar headaches in the past is another finding that suggests a serious disorder. The "first" and "worst headache of my life" are descriptions that sometimes accompanies an intracranial hemorrhage or central nervous system (CNS) infection.Sudden-onset "thunderclap" headache - Severe headache of sudden onset (ie,that reaches maximal intensity within a few seconds or less than one minute after the onset of pain) is known as "thunderclap headache" because its explosive and unexpected nature is likened to a clap of thunder.In patients presenting to the emergency department with headache,history should be questioned well and should be considered intraparenchymal hemorrhage the differential diagnosis.

Keywords: headache, intracranial bleeding

P-100

Arrest due to third ventricular colloid cyst

Suna Dilbaz[2], Bilal Yeniyurt[1], Süreyya Tuba Fettahoğlu[1], Vildan Avcu[1], Salih Fettahoğlu[1], Eren Sert[1], Serkan Doğan[1], Semra Işık[2]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey
[2]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Neurosurgery Clinic, Istanbul, Turkey

Background and aim: Colloid cyst is one of the benign tumors of the brain that does not show cancer characteristics. Due to its location, it can cause obstructive hydrocephalus and increased intracranial pressure.Patients usually apply to the clinic with complaints such as headache, dizziness, memory disorders, double vision, and behavioral disorders. It can also be detected incidentally in some patients. Sudden death can be observed in cases of sudden hydrocephalus.

Case: A 23-year-old male patient, who was brought to our emergency department by 112 as cardiac arrest, had a pulse after CPR application. Intubation was performed to protect the respiratory tract. The rush protocol was applied to the patient who had a hypotensive course. In the ultrasound imaging, no situation explaining the hypotensive state was detected. A cyst was detected in the neighborhood of the third ventricle in the brain tomography of the patient whose tomographic imaging was taken. The patient's condition was consulted with neurosurgery. It was said that for the current clinical situation, burrhole application was required under emergency conditions. The operation of the patient was performed and the vitals were stable and intensive care internment was provided.

Conclusions: Colloid cysts are lesions that can cause difficulties in terms of surgery because they are located in the midline and deep. Contrary to the case presented here, their prognosis is quite good if they are diagnosed early and the cyst is completely removed. In this case, we wanted to emphasize one of the diseases that should be considered when recovery from sudden cardiac arrest is achieved in young patients.

Keywords: burrhole, sudden cardiac arrest, third ventricular colloid cyst

P-108

NECROTİZAN SOFT TİSSUE İNFECTİON: FİGHT AGAİNST TİME FOR SURVİVAL

Rumeysa İnci[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Nurhayat Başkaya[1], Murat Zeftçi[1]

[1]Kartal Dr. Lütfi Kırdar City Hospital

Background and aim: Necrotizing soft tissue infections (NSTIs) is a disease characterized by rapidly spreading necrosis of soft tissues and fascia, which can have a fulminant course if not treated properly (1). In this case report we have presented a patient with necrotizing fasciitis.

Case: The 62-year-old male patient applied to the emergency department with the complaints of wound, edema and pain on the left inguinal region. At the admission, blood pressure(BP): 150/130 mm Hg, pulse: 106 beat per minute, fever: 36 oC, oxygen saturation: %96, blood glucose: 297 mg/dl. The patient's past medical history contains diabetes mellitus , hypertension and coronary artery disease. In physical examination, there was swelling, redness, crusted wound appearance, reductable inguinal hernia in the left inguinal.In laboratory findings, white blood cell: 25.270µL, c-reactive protein : 315, creatinine : 0.56mg/dl , urea: 46 mg/dl , ph: 7.36 , hco3: 20.9mmol/L. In computed tomography of the patient there are diffuse air densities surrounding the vascular structures measuring approximately 92x67 mm around this area and extending under the skin to the inguinal region (Figure 1). Due to this findings the patient diagnosed as NSTIs. In the treatment firstly 2 g seftriaxon was administered then clindamycin 900mg, meropenem 1000mg , and daptomycin 350mg when the patient was admitted. Urgently wound debridement of the left femoral region, aneurysm repair and left femoral artery exploration has done by orthopedic surgery. After 60 days hospitalization to orthopedics and intensive care unit patient died.

Conclusions: NSTIs include necrotizing forms of fasciitis, myositis, and cellulitis. These infections are clinically characterized by fulminant tissue destruction, systemic toxicity symptoms and high mortality. It is a condition requiring urgent intervention that can progress rapidly (2,54 cm/hour) (2). One of the most important findings in his clinic is pain inconsistent with physical examination and tachycardia disproportionate to fever. Crepitation may be seen(3). The cornerstone of basic treatment in NF is operative exploration and surgical debridement. Mortality increases rapidly if delayed for more than 24 hours. The emergency physcians should be aware of NSTIs. Early approaches can prevent mortality.

Notes (Optional): References1. https://www.journalagent.com/travma/pdfs/UTD-97523-REVIEW-VAYVADA.pdf 2. https://www.uptodate.com/contents/necrotizing-soft-tissue-infections?search=nekrotizan%20fasiit&source=search_result&selectedTitle=1~136&usage_type=default&display_rank=1 3. Tintinalli's emergency medicine 9th edition

Keywords: Necrotizan fasiitis, Necrotizing soft tissue infections, NSTIs

P-132

Opioid Toxicity and Acute Lung Injury

Ayşe Tekin Acar[1], Ceren Kabasakal[1], Nazmi Toprak[1], Fatih Selvi[1]

[1]Antalya Eğitim ve Araştırma Hastanesi

Background and aim: Opioids are opium compounds with analgesic properties. Opioids are used in the treatment of cancer-related pain because of their effectiveness for all pain. Especially opioid transdermal patches are agents used in cancer patients. Their inappropriate use is indicated as opioid toxicity.Opioid toxidrome is miosis, lethargy, and respiratory depression. Although rare, lung injury due to opioid intake is one of the clinics we may encounter. Acute lung injury may occur immediately or up to 24 hours after an overdose.It presents with tachypnea, rales, decreased oxygen saturation, and bilateral pulmonary infiltration. In this case, lung damage due to the use of opioid transdermal patch will be discussed.

Case: Known bladder cancer 81 years old male patient applied with complaints of weakness and loss of appetite. Her arrival vitals were normal, and coarsening of breath sounds and 1+ pretibial edema in the right leg were detected on physical examination. In the patient's thorax tomography, airbronchogram of the left lung and ground glass were observed around it, and it was interpreted as pneumonic infiltration. In the control vitals of the patient who had shortness of breath and worsening in consciousness, saturation was calculated as 65% and GCS 12. In the control examination, 3 opioid bands were found. Naloxane was administered with a prediagnosis of opioid toxicity in a patient with respiratory and cognitive impairment. The patient's consciousness improved after naloxane, and his breathing did not improve. With the reservoir mask, the patient's saturation increased to 80.Thoracic CT angiography was performed on the patient because of acute shortness of breath, tachycardia, diameter difference in the leg, and desaturation unresponsive to naloxane.

Conclusions: No pulmonary embolism was detected in the patient's tomography, but opioid-induced lung injury was considered due to diffuse frosted glass appearance and infiltration in the lung parenchyma compared to his previous tomography. In opioid toxications, naloxane is effective in reversing unconsciousness and respiratory depression, but naloxane does not reverse the damage in opioid-induced lung injury.

Notes (Optional): Lung injury due to opioid toxicity is a rare complication, but opioid-induced lung injury should be considered in respiratory depression unresponsive to naloxane.

Keywords: opioid toxicity, acute lung injury

P-153

An interestingPneumomediastinum case; The pipe was opened, the patient was clogged

İnan BEYDİLLİ[1], Oguz KOÇAK[1], Veysel Karani BELEN[1], İbrahim YİMSEK[1], Yücel YÜZBAŞIOĞLU[1], Zikret KÖSEOĞLU[1]

[1]Mersin Şehir Eğitim Ve Araştırma Hastanesi

Background and aim: Pneumomediastinum is a condition in which air is present in the mediastinum due to perforation of the respiratory or digestive system organs.Then, the released air can be dissected into near cervical subcutaneous tissues, epidural space, pericardium or peritoneal space. It occurs especially in young men-as a result of peripheral pulmonary alveolirupture. Spontaneous alveolar rupture usually occurs when alveolar pressure increases. Such as coughing, vomiting, strainingor the valsalva maneuver. Generally, the most common symptoms in pneumomediastinum are retrosternal chest pain, dyspnea, dysphagia and hoarseness.If the patient does not have complications, for the treatment oxygen support, rest, avoiding valsalva maneuvers, prophylactic antibiotics against the risk of mediastinitis and observation with serial imaging are sufficient. In general, 2-5 days are sufficient for resolution . If resolution does not happen, on the contrary, if there is a decrease in venous return due to the compression effect of free air, resulting in cardiovascular collapse and cyanosis, then needle aspiration of the mediastinum, mediastonomy or in progressed cases emergency thoracotomy may be required.

Case: A 36-year-old male patient came to emergency service with chest pain, swelling in the face and neck happend after trying to open an obstructed water pipe by blowing air heavily with his mouth through the pipe. Patient's was Blood pressure:120/70, Pulse: 94, O2 Sat: 96. Physical examination of the patient showed swelling and subcutaneous crepitation spreading from the upper part of the chest toward the neck. Also bilateral respiratory sounds were decreased in the upper lobes of the anterior face of lungs . Thorax CT showed diffuse air in the mediastinum and subcutaneous emphysema in the anterior chest. The patient was consulted to the Thoracic Surgery department with a preliminary diagnosis of pneumomediastinum and hospitalization was planned .

Conclusions: Forced expiration may cause tracheobronchial injuries. As a result, patients may develop pneumomediastinum. This free air in the mediastinum is usually resorbed within 2-5 days.However it is important to apply a prophylactic antibiotics against the risk of mediastinitis, rest and avoid valsalva maneuvers.

Keywords: Pneumomediastinum, Thoracotomy, Emergency

P-105

GUILLAIN BARRE SYNDROME

Semal Ucar[1], Kemal Sener[1], Semih Korkut[1]

[1]Republic of Turkey, Ministry of Healthy Başaksehir Çam and Sakura State Hospital

Background and aim: Guillain-Barré syndrome (GBS) is a very common acute inflammatory demyelinating polyradiculopathy of autoimmune origin affecting peripheral nerves. Mild respiratory or gastrointestinal tract infection occurs 1-3 weeks before neuropathic symptoms in 60% of cases.The main scheme of the disease is progressive loss of strength and muscle weakness. Although the main etiopathology of GBS is unknown, it occurs as a result of immune reaction in peripheral nerves.

Case: ANAMNESISA 19-year-old male patient initially felt contractions in both calves two days ago. Afterwards, he felt numbness and weakness extending from both feet upwards.the day before, the numbness radiating upwards from both hands had turned into weakness.There is no history of upper respiratory tract infection and gastrointestinal tract infection in the last 3 months.BACKGROUNDThe patient does not have any known chronic disease and does not have regular medication.The patient has no history of surgery.NEUROLOGICAL EXAMINATIONConscious, oriented and cooperative. Speaking and understanding are natural. No obvious facial asymmetry was detected. Pupillary isochoric, direct/indirect light reflex ++/++, eye movements are free and prominent in all directions, nystagmus was not observed. Muscle strengths are bilaterally lower proximal 4/5, distal 3/5, and bilateral upper extremities 3/5. deep tendon reflex hypoactive in both lower extremities. No neck stiffness was detected.IMAGINGNo acute pathology was detected in the cranial computed tomography and diffusion MR imaging of the patient.EMG: Electrophysiological findings in this examination, performed at very early rotation, approximately 2 days after the onset of the complaint, were evaluated as compatible with a polyneuropathy syndrome in which motor fibers are affected, with marked excitation and conduction defects in the distal extremities. TREATMENT: IVIG treatment was started. The treatment was planned as 30 GR/DAY for the first two days and then 40 GR/DAY.

Conclusions: In this case, we wanted to present our patient who applied to the emergency room green area and was diagnosed with Guillain Barre syndrome.

Keywords: Guillain-Barré syndrome, IVIG

P-087

CHRONIC SUBDURAL HEMATOMA

Çilem KIZILELMA[1], Avni Uygar SEYHAN[1], Erdal YILMAZ[1], Rohat AK[1], Nahide Gizem OKAY[1], Münire Hande GÖLGELİ[1], Bülent YILMAZTÜRK[1], Sibel YALAR[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: A chronic subdural haematoma (CSDH) is a collection of blood breakdown products in the subdural space. CSDH is frequently diagnosed in hospital emergency departments and constitutes one of the most common disorders treated in neurological surgery departments. Since CSDH is characteristic of the elderly population, in whom multiple comorbidities coexist, the therapeutic and diagnostic approach involves a range of medical specialities such as neurology, internal medicine, geriatrics, rehabilitation and neurosurgery, among others. Hence, it is very important to detect the haematoma early on, in order to treat it more efficiently in relation to its characteristics. We present a case of chronic subdural hematoma. Patients receiving oral anticoagulant or antiplatelet therapy should be alerted for symptoms and signs of intracranial hemorrhage.

Case: A 71-year-old male patient applied to the emergency department with the complaint of slurring of speech for 2 days. The patient had diabetes and hypertension diagnoses and was using acetylsalicylic acid. The patient's vitals were blood pressure 145/78, pulse 68, fever 36.5 and saturation 92. ECG of the patient is in sinus rhythm and there is no ST elevation. In the neurological examination of the patient, he was conscious, cooperative-orientated. His Glasgow Coma Scale was 15. Speech was dysarthric. Light reflex was normal bilaterally. Cranial nerve examination was roughly normal. No motor deficit was detected. No incontinence. Computed tomography was requested for the patient. Neurosurgeon was consulted when subdural hematoma was detected in the left frontoparietal region in brain tomography. The patient was taken to emergency operation by the neurosurgeon.

Conclusions: Subdural hematoma (SDH) is a form of intracranial hemorrhage characterized by bleeding into the space between the dural and arachnoid membranes surrounding the brain. SDH can be a neurologic emergency that may cause irreversible brain injury and death caused by hematoma expansion, elevated intracranial pressure (ICP), or brain herniation. Patients with acute or chronic SDH require urgent initial assessment of clinical status to determine the need for surgery and the medical interventions needed to mitigate adverse outcomes.

Keywords: chronic subdural hematoma, intracranial hemorrhage, neurosurgery emergencies

P-123

Insights From Arterial Blood Gas Analyses Into Ventilation During Out-Of-Hospital Cardiac Arrest

Johannes Wittig[1], Melanie Arnreiter[2], Simon Orlob[3], Gerhard Prause[4]

[1]Medical University of Graz, Austria
[2]Medical University of Graz, Department of Cardiac Surgery, Austria
[3]Medical University of Graz, Department of Anesthesiology and Intensive Care Medicine, Division of Anesthesiology for Cardiovascular and Thoracic Surgery and Intensive Care Medicine, Austria
[4]Medical University of Graz, Division of General Anaesthesiology, Emergency- and Intensive Care Medicine, Austria

Background and aim: The presence of excessive ventilation during treatment of cardiac arrest by professional rescuers remains a prominent concern. However, ventilation frequency and tidal volumes are rarely measured during out-of-hospital cardiac arrest (OHCA). The actual adherence to guideline recommendations is unknown. Point-of-care arterial blood gas (ABG) analysis can be used to detect evidence of hyperventilation and can provide insights into acid-base disorders during OHCA. We hypothesized that professional rescuers adhere to guideline recommendations by avoiding hyperventilation during OHCA, evident by the absence of respiratory alkalosis, namely hypocapnia, and subsequent alkalemia in ABG measurements.

Methods: For this study an analysis of electronic patient files, registry data and point-of-care ABG analyzer (Siemens epoc®) recordings obtained from January 1, 2016 to December 31, 2018, by one pre-hospital physician staffed EMS system in Austria, was conducted (IRB number 33-235 ex 20/21). OHCA cases of adult patients (≥18 years) with documented ABG measurements were eligible for analysis. The distribution of acid-base disorders, pH, arterial partial pressure of CO2 (PaCO2) and Base Excess (BE) were analyzed.

Results: A total of 497 cases of adult OHCA were identified of which 15.3% (76 of 497) had an ABG reporting pH, PaCO2 and BE. Patient median age was 71 [IQR: 17 (21;92)] and 69.7% (53 of 76) were male. Of the 76 OHCA cases only one had evidence of respiratory alkalosis with a PaCO2 of 34 mmHg and a pH of 7.31. Frequency of other isolated acid-base disorders was 5.3% (4 of 76) for respiratory acidosis and 3.9% (3 of 76) for metabolic acidosis. No case of isolated metabolic alkalosis was found. Mixed acid-base disorders made up 90.8% (69 of 76) of all cases. Acidemia was present in all 76 cases. Median ABG measurements were 7.01 [IQR: 0.2 (6.6;7.34)] for pH, 79 [IQR: 37 (34;168)] mmHg for PaCO2 and −12.5 [IQR: 10.4 (−29.2; −0.1)] mmol/L for BE.

Conclusions: The findings suggest that professional rescuers adhere to guideline recommendations by avoiding excessive ventilation indicated by the lack of evidence of pronounced hypocapnia or alkalemia. Mixed acid-base disorders and acidemia appear to be most common during OHCA.

Keywords: CPR, Arterial Blood Gas, Ventilation, Out-of-Hospital Cardiac Arrest, Resuscitation

P-040

NO WAY! A GIANT HEPATIC ABSCESS

Serkan Kaygusuz[1], İbrahim Altundağ[2], Kadir Çiftçi[1], Alperen Şahin[1], Burcu Genç Yavuz[1], Şahin Çolak[1], Kaan Yusufoğlu[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: A pus-filled mass in the liver that develops secondary to liver damage or intra-abdominal infections spreading through the portal vein is called a liver abscess.They are more common in middle-aged patients.The majority of these abscesses are categorized as pyogenic or amoebic, although a minority are caused by parasites and fungi. Eventhough the incidence is low, the risk of mortality is high in untreated patients. Clinically, it presents with variable symptoms such as fever, abdominal pain, nausea-vomiting, fatigue, discoloration of the skin, urine or stool.In this article,we aim to emphasize that liver abscess should be considered in the differential diagnosis, especially in patients presenting to the emergency department with upper abdominal pain.

Case: A 62-year-old male patient without any known disease or drug usage presented to the emergency department with complaints of abdominal pain, abdominal distension, fever and nausea. In vital parameters fever:37.4oC, SpO2:97%, blood pressure:114/78mmHg and heart rate:112/min were detected.In physicial examination,there was diffuse abdominal tenderness and a 3x3 cm mass palpable in the right upper quadrant on palpation. He had no history of liver or biliary tract pathology. In laboratory results WBC:14.700/uL, ALT:178 U/L, AST:192 /UL, GGT:133U/L, Total bilirubin:4.2mg/dL, Direct bilirubin:3.4g/dL, CRP: 86mg/L, Urea:31mg/dL, Creatine:0.8mg/dL were detected. In arterial blood gas, pH:7.32, PaCO2:24 mmHg, SpO2: 97%, PaO2:91mmHg, lactate:3.4mmol/L, HCO3:20.1mEq/L.In contrast-enhanced abdominal tomography 30x15 cm abscess seen in liver.The patient was admitted to the general surgery service for further examination and treatment.

Conclusions: Liver abscesses are not a common abdominal patology in the emergency department. In patients presenting with abdominal pain, fever, nausea and vomiting, it is usually encountered with ultrasound and tomography at the advanced examination stage.Diabetes mellitus, alcoholism, immunodeficiency, malignancy and liver transplantation are risk factors for liver abscesses.The most common complications in liver abscesses are pleural effusion, pneumonia, sepsis and septic shock. Liver abscess is a pathology that causes serious problems with its complications and needs to be treated in the early period.Although the clinician do not encounter liver abscess very often, it is one of the preliminary diagnoses and diagnoses that should always be kept in mind.

Keywords: abscess, hepatic abscess

P-015

PREECLAMPSIA RELATED PLACENTAL ABRUPTION, A CASE REPORT

Burak Özçelik[1], İbrahim Altundağ[2], Alperen Şahin[1], Metin Öner[3], Burcu Genç Yavuz[1], Filiz Hasasu Oktay[1], Şahin Çolak[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul
[3]Hatay Dörtyol State Hospital, Department Of Emergency Medicine, Hatay

Background and aim: Separation of the placenta from the area where it's implanted in the uterus is called placental abruption(abruptio placenta).Ablation placenta occurs due to rupture of the vascular structures supporting the placenta.Although it's a rare pathology, it is one of the most important causes of maternal-perinatal mortality and morbidity.Maternal hypertension, smoking, multiple pregnancy, grandmultiparity and preeclampsia are the main risk factors(1).Preeclampsia is a type of pregnancy-associated hypertensive emergency.It constitutes 2% to 8% of pregnancy-related complications(2).In this article, we present a case of ablatio placenta associated with preeclampsia.

Case: A 36-year-old female patient at 35th week of pregnancy without known disease was brought to the emergency department via ambulance due to syncope developed one hour ago.G3P2A2.She applied to the pregnant outpatient clinic yesterday, was recommended to be hospitalized with the pre-diagnosis of preeclampsia due to his blood pressure of 145/95 and the detection of proteinuria, but the patient did not accept the hospitalization. On arrival, GCS:15.In vital parameters blood pressure:90/60mmHg, saturation:98%, pulse:95/min, fever:37oC were detected.ECG was normal sinus rhythm.Neurological examination was normal.Bilateral ++/++ pretibial edema was seen.She had no complaint of chest pain, dyspnea, vaginal discharge or bleeding.Spotting bleeding was observed on the vaginal touch.In bedside USG, there was free fluid in the abdomen. A single fetal heartbeat was observed.The patient was taken to obstetrics follow-up with preliminary diagnosis of placental ablation.In the follow-ups, the decision to section was taken due to the onset of fetal bradycardia and vaginal bleeding.It was observed that the placenta was 40% detached.

Conclusions: Basic laboratory tests should be requested during the diagnosis and treatment of pregnancy-related pathologies that require urgent intervention.Although USG is useful in distinguishing between abruption and placenta previa, which are the most important causes of fetal and maternal mortality, the sensitivity of USG in the diagnosis of ablatio placenta is low.Since the definitive diagnosis of ablatio placenta can only be made when the placenta is examined after birth, anamnesis and physical examination are critical.Placental abruption is a potentially life-threatening condition that requires immediate attention.Therefore, an accurate assessment of the patient is critical to develop an appropriate management plan and to prevent a potentially bad outcome(1).

Keywords: abruptio placenta, placental abruption, obstetric emergency, bleeding, syncope

P-077

A Case of Complete AV Block Due to Hyperkalemia

Yucel Yuzbasioglu[1], Serkan Paltaci[1], Piril Kocak[1], Zikret Köseoglu[1], İnan Beydilli[1], Mahmut Yılmaz[1], İbrahim Akça[1]

[1]Univerctiy of Healty Sciences, Mersin City Hospital, Department of Emergency Medicine, Turkey
[2]Univerctiy of Healty Sciences, Mersin City Hospital, Cardiology, Turkey

Background and aim: Hyperkalemia may be responsible for a wide range of electrocardiographic changes. Complete AV block due to hyperkalemia without prolongation of the QRS complex is a rare condition(1). We wanted to present a case of complete AV block without QRS complex prolongation due to hyperkalemia

Case: A 66-year-old male patient applied to our emergency department with complaints of nausea, vomiting and dizziness. It was learned that the patient had chronic renal failure (dialysis 2 days/week), ischemic heart disease (history of angiography, no stent) and hypertension. The drugs used by the patient were ecopirin, beloc, epoetin, magnesie calcine, levocarnitine, sodium bicarbonate and ostriol. On physical examination of the patient, it was determined that his consciousness was confused. Vital signs; blood pressure was 70/50 mmHg, pulse: 32 beats/min, spo2:97, fever:37.1 °C. In laboratory tests, blood sugar: 242 mg, creatinine: 7.8 mg/dl, urea 169 mg/dl, and blood gas pH: 7.32, K: 8.3 mmol/L and Lactate: 13.7. Complete AV block (Figure 1) was detected in his ECG. As treatment, 3 mg of atropine, Calcium-gluconate (3 ampoules in 100 cc saline) and buffered fluid (5 units of crystallized insulin in 250 cc 10% dextrose) were started. The patient, whose ECG and blood potassium values did not improve, was hospitalized for temporary pacemaker implantation and then emergency dialysis.

Conclusions: In general, hyperkalemia causes a gradual depression of conduction velocity, excitability of specialized pacemaker cells and conduction tissues throughout the heart. Although complete atrioventricular block may occur, high serum potassium levels are thought to impair conduction in Purkinje fibers and ventricles more than in the AV node(1,2). It is known that the AV node is sensitive to the classical prolonged PR interval and QRS widening, which is often seen in hyperkalemia. (3) In our case, the normal QRS duration was remarkable in the case with complete AV block.

Keywords: Hyperkalaemia, Complete AV block, QRS widening

P-092

A Rare Case: Posterior Reversibl Encephalopathy Syndrome (PRES)

Ercan GÜNDÜZ[1], Ramazan PETEKKAYA[1], Mehmet Hanifi AĞIRAĞAÇ[1], Abdullah ŞEN[1], Hasan Mansur DURGUN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Posterior Reversible Encephalopathy Syndrome (PRES) is a neurological syndrome that can be diagnosed by clinical and radiological imaging. Typical symptoms include headache, confusion, visual symptoms, and seizure. Although PRES often occurs in conditions such as hypertensive crisis, preeclampsia, cytotoxic immunosuppressive therapy, it can also occur in some other clinical conditions. We will discuss this rare syndrome based on a case that came to the emergency department of our hospital.

Case: A 37-year-old female patient who has just given birth is brought to the emergency department after an epileptic seizure at home. When the patient came, his consciousness was confused, his visual acuity decreased, and his blood pressure was measured high. In the cranial MRI of the patient, edematous signal changes were seen in the bilateral frontoparietal, occipital and partly temporal lobes, causing expansion in the cortico-subcortical regions, as well as in the corpus callosum of similar character in both cerebellar hemispheres, and hyperintense diffusion-weighted images showing increased diffusion in T2A-Flair images in the splenium section. .(Compatible with PRES.) The patient was transferred to the intensive care unit with the diagnosis of press.

Conclusions: Most patients recover in PRES within two weeks. A small number of patients may develop neurological deficits due to secondary cerebral infarction or hemorrhage. Some patients die as a result of increased intracranial pressure or as a complication of the underlying condition. MRI findings can be helpful in identifying patients with a potentially worse prognosis. The main step in the treatment of PRES syndrome is the treatment of high blood pressure. It is aimed to reduce the patient's blood pressure by 10-25% in the first place. The first recommended drugs for blood pressure control are Ca channel blockers. The fact that the patient in our case was in the high-risk group (having recently given birth), confusion at the time of his arrival, decreased visual acuity and high blood pressure, and supporting this with cranial MRI helped us in making the diagnosis. Knowing the risk groups will help doctors a lot during the diagnosis phase.

Keywords: PRES, High Blood Pressure, Neurological Symptoms, Pregnancy

P-006

A Rare Case in the Emergency Service: Bullosis Impetigo

Hasan Mansur DURGUN[1], Tahir Fırat ZADEOĞLU[1], Mehmet YILMAZ[1], Mustafa İÇER[1], Mahmut YAMAN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Impetigo is a superficial contagious pyogenic infection of the skin. Factors that facilitate the emergence of the disease include high temperature, excessive humidity, poor hygiene and skin trauma. In this case, we examined a patient who came to the emergency department with diffuse vesiculobullous lesions.

Case: A 22-year-old male patient is engaged in animal husbandry in the village. He had recently used Munderm Gel for the treatment of acne, he had extensive crusted lesions on the scalp for 4 days, and eroded lesions were present when the crusts were removed. Oropharynx was hyperemic, there was no active eroded area in the mouth. There was epithelial remnant remaining from the bulla in the buccal mucosa. There were erythematous vesiculobullous lesions in the axillary region, back, genital and gluteal regions. Vegetative lesions were present in the genitals and were not painful. He had no palmar and plantar lesions and had no suspected sexual intercourse. The preliminary diagnoses of pemphigus vulgaris, bullous pemphigoid, bullous impetigo, dermatitis herpetiformis, fixed drug reaction were considered in the patient. Staph in the patient with the smear test. aerus growth was observed, and the patient was diagnosed with bullosis impetigo.

Conclusions: The diagnosis is often made clinically and can be confirmed by gram stain or culture. In the case we examined, the patient had clinically vesiculobullous lesions on the body, had open wounds for several days in the patient's history, lived in a temperate humid area, and had yellow crusted lesions on his body led us to the diagnosis of bullosis impetigo. The patient was diagnosed with bullosis impetigo after staph aures was detected by gram staining in the smear test performed for this purpose. It should be kept in mind that a preliminary diagnosis of bullosis impetigo should be considered in patients presenting with this clinic.

Keywords: Bullosis Impetigo, Yellow Honey, Colored Crust Lesion, Temperate Climate, Vesiculobullous Lesions

P-041

IATROGENIC GASTROINTESTINAL TRACT PERFORATION, A CASE REPORT

Alperen Şahin[1], İbrahim Altundağ[2], Burcu Genç Yavuz[1], Mustafa Oğuz Alp Çelik[1], Şahin Çolak[1], Muastafa Ahmet Afacan[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Gastrointestinal (GI) tract perforation occurs due to reasons such as peptic ulcer, trauma, iatrogenic causes, foreign body, appendicitis, inflammatory pathologies and tumor complications.It's a surgical emergency that requires early diagnosis and treatment. The 53% of iatrogenic perforations are seen in the sigmoid and rectosigmoid junction, 24% in the cecum, 15% in the transverse colon, 15% in the ascending colon and 5% in the descending colon.Our aim with this case report is to emphasize that there is a rare risk of GIS perforation in colonoscopies performed for screening or diagnosis-therapeutic purposes.

Case: A 52-year-old male patient with a diagnosis of gastritis was admitted to the emergency department with complaints of abdominal pain and nausea-vomiting.The patient had a diagnostic colonoscopy yesterday for investigation of mild, non-specific GI symptoms that he had for a long time.Severe, analgesic-resistant abdominal pain began a few hours after colonoscopy.GCS: 15, pulse: 110/min, blood pressure: 90/60mmHg and other vital parameters were normal.Abdominal examination revealed widespread defense and rigidity. Free air densities were seen under the diaphragm in chest and abdominal radiographs. (Figure 1).The patient was taken to emergency surgery with a preliminary diagnosis of iatrogenic GIS perforation.Perforation was found in the rectosigmoid region.The patient, who successfully repaired the perforation with surgery and had no additional complaints in the follow-up, was discharged with recovery.

Conclusions: Iatrogenic GI perforations are among the serious complications associated with colonoscopy. Colon perforation has been reported to occur at a rate of 0.03%-0.65% in diagnostic colonoscopies and 0.073-2.14% in therapeutic colonoscopies.There are two different treatment approaches for colon perforations.Small perforations without signs of peritonitis or small perforations that are not noticed during colonoscopy can be followed conservatively.In other cases of perforation, the main option is surgery.Because of high mortality and morbidity, iatrogenic colon perforations require surgical intervention.

Keywords: Iatrogenic GI perforations, diagnostic colonoscopy, GIS perforation

P-003

RARE VS NEW: CREUTZFELDT-JAKOB DISEASE (CJD) AND COVID-19

Burak Özçelik[1], İbrahim Altundağ[2], Alperen Şahin[1], Burcu Genç Yavuz[1], Şahin Çolak[1], Sinem Doğruyol[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Creutzfeldt-Jakob Disease(CJD), also known as subacute spongiform encephalopathy, is the most common(85%) type of all prion diseases.It occurs as a result of conversion of normal prion protein form(PrPC) to an abnormal form of the prion protein(PrPSc).The infectious isoform, PrPSc, can be spread by direct contact with contaminated tissue or by inheriting a mutation in prion protein gene.In CJD; there may be many neurological symptoms such as rapidly progressive dementia, myoclonus, cerebellar, pyramidal, extrapyramidal, visual symptoms, psychiatric symptoms and behavioral changes.In Covid-19, clinical manifestations such as decreased muscle strength, ataxia, dizziness, headache, anosmia, hallucinations may occur(1).

Case: A 66-year-old female patient with hypertension and diabetes mellitus was brought to emergency department with complaints of inability to speak, forgetfulness and inability to walk for 2 weeks.It was learned that the patient hospitalized and followed up because of dizziness and tremor in the hands, which started 1 month ago.During hospitalization, the RT-PCR test for COVID-19 infection was positive and the symptoms started in that period gradually increased.There was no verbal response, the water drinking test was unsuccessful, muscle strength in upper extremities was 3/5, in lower extremities was 2/5.Plantar reflex was bilaterally absent.She had widespread rigidity in 4 extremities, and myoclonus was observed in both arms.CSF 14-3-3 protein was positive. The other routine laboratory tests (including serological tests) and CSF parameters were normal.Brain CT was normal. In diffusion MRI a change in intensity was observed in the bilateral basal ganglia and adjacent to the bilateral frontal lobe interhemispheric sulcus.Electroencephalography revealed widespread disorganization in both hemispheres.Based on the symptoms, MRI findings and CSF 14-3-3 protein positivity, it was thought to be CJD.

Conclusions: Considering that central nervous system is a potential target for Covid-19.It's possible that diagnosis of covid-19-associated encephalitis should be considered in patients presenting with neurological symptoms. With this; focusing on covid-19 should not overlook or delay diagnosis of other possible diagnoses of neurological symptoms, such as CJD.Early and accurate diagnosis will prevent unnecessary, negative treatments and increased health care costs and excessive use of health resources.Moreover; it will increase chances of healthcare workers protecting themselves against a mortal and contagious disease such as CJD.

Keywords: covid-19, Creutzfeldt-Jakob Disease, CJD, PrPSc, PrPC

P-052

Cough after ACE inhibitor followed by Pneumothorax

Hasan Mansur DURGUN[1], Nursel SELÇUK[1], Taner EKİNCİ[1], Mustafa İÇER[1], Abdullah ŞEN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: ACE inhibitors given in antihypertensive treatment increase bradykinin levels and cause dry cough. In this case, a circumstance of spontaneous pneumothorax caused by coughing after ACE inhibitor use is described.

Case: A fifty three year-old female patient presented to the emergency department with complaints of chest pain and laboured breathing that had occurred recently. She has a cough symptom after using ACE inhibitor for about 3 months. BP: 125/80, Pulse: 85, SpO2: 95 (at room air), Fever: 36.5. The general condition of the patient was good, consciousness was clear., oriented and cooperative. On physical examination, respiratory sounds could not be heard in the left lung. Pneumothorax was seen in the left lung on the radiograph. The patient was positioned and oxygen support was started. Thoracic Surgical consultation was requested and drainage was provided by inserting a tube thoracostomy to the patient.

Conclusions: Pneumothorax is a serious life-threatening condition. Large-grade pneumothoraces require rapid intervention with monitoring. It should be kept in mind that pneumothorax may develop after coughing.

Keywords: ACE Inhibitor, Cough, Spontaneous, Pneumothorax, Thoracic Surgery

P-025

THERE IS NO DISEASE BUT THE PATIENT: A CASE REPORT OF PREECLAMPSIA

Batuhan Gümüşay[1], İbrahim Altundağ[2], Alperen Şahin[1], Burak Özçelik[1], Burcu Genç Yavuz[1], Şahin Çolak[1], Kaan Yusufoğlu[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: The occurrence of hypertension, proteinuria, and laboratory abnormalities in a previously healthy woman between the 20th week of pregnancy and the 4th postpartum week is called preeclampsia.Diagnostic criteria include blood pressure ≥140/90mmHg in at least two blood pressure measurements (measured four hours apart), ≥1+ proteinuria in spot urine (≥300mg/day) or end-organ damage such as liver-kidney.Preeclampsia is one of the types of gestational hypertensive emergency and requires urgent intervention.Non-specific symptoms such as headache, nausea-vomiting, body edema, abdominal pain and restlessness causes difficulty in diagnosis.

Case: A 25-year-old female patient at the 26th week of pregnancy without a known disease or drug use history was admitted to the emergency department with complaints of nausea and vomiting.G1P0A0.She had isolated nausea-vomiting for two days and she had no additional complaints.There wasn't any abnormality in the vital parameters.On arrival, GCS:15 and her general condition was poor.Neurological examination was normal.There wasn't any pathology except WBC:11.000/uL and ketone:++ in the complete urinalysis, in the admission.The symptomatic supportive treatment was started but clinical relief couldn't be achieved in the follow-up.Her blood pressure was 150/90 mmHg at the 5th hour of follow-up in the emergency department.She was admitted to the obstetrics and gynecology service for further examination and treatment.Preeclampsia was diagnosed in the patient whose blood pressure continued to increase and proteinuria developed during the service follow-ups.

Conclusions: The aim of the treatment of preeclampsia is blood pressure control, seizure prophylaxis and close follow-up for cerebral edema, bleeding and infarct development. Routine cranial imaging is not recommended in preeclampsia follow-ups.Diagnostic approaches including non-contrast cranial CT or MRI are recommended in the presence of persistent focal neurological deficit, persistent visual impairment and resistance to magnesium and antihypertensive therapy, or in cases where the diagnosis of preeclampsia cannot be confirmed.It should be kept in mind that the diagnostic criteria for preeclampsia may not be seen in the early period, and in the presence of clinical suspicion, prolongation of the follow-up period and hospitalization should be considered.Finally, the phrase 'there is no disease but the patients' should always be kept in mind and patient approaches should be carried out accordingly.

Keywords: hypertension, Preeclampsia, hypertensive emergency, proteinuria

P-135

Pain From Fishing: Trachonis Draco

Hasan Kürşad Korkmaz[1], Abdullah İlhan[1], Dilay Satılmış[1], Erdem Çevik[1]

[1]Sultan 2.Abdulhamid Han Eğitim ve Araştırma Hastanesi

Background and aim: Fishing-related injuries are one of the most frequent reasons people visit the emergency department (ED) in our country. The Trachonıs Draco, Greater weever, is a species encountered especially in fishing, and it causes a broad spectrum of clinical symptoms from mild pain to severe anaphylactic reactions with its poison called Dracotoxin. The toxin, which most commonly causes local pain and a burning sensation, is released from the bony needle in front of the dorsal fin. Symptoms resolve within 12 to 24 hours.

Case: A 75-year-old male patient was brought by ED because of the needle on the back of a fish whose species he did not know was inserted 2 cm into the proximal interpharyngeal joint on the right hand's 2nd finger flexor face. A black-colored, edematous lesion was observed. Localized edema and redness were observed, wide enough to cover the first and third fingers on the palmar face. Temperature increase and tenderness were observed in the finger. The patient with limited range of motion described severe pain. No uvula edema was detected in the examination. Lungs were equally involved in breathing, and breath sounds were bilaterally natural. Except for the local reaction seen in the right hand, there was no finding in favor of anaphylaxis in the body. Treatment for the local response was started as 60mg Prednisolone intravenous bolus, 2 ml 45.5mg Pheniramine intramuscularly, and saline for hydration. Adrenaline was not administered to the patient. The patient's hand was placed in a container and kept in hot water. The patient, who was followed up in the emergency room for 6 hours, was discharged home with recommendations.

Conclusions: There are various poisonous animals found in the seas, and cases that can cause severe consequences in case of contact are frequently encountered in ED. Adrenaline, steroid, and antihistamine drugs should be considered as they may lead to serious anaphylactic clinical pictures. Therefore, washing the wound area with hot water is recommended to reduce the local effect of the lesion. In cases that do not cause anaphylaxis, local pain subsides within 12 to 24 hours, but there are symptomatic treatment recommendations.

Keywords: amateur fishing, trauma, anaphylaxis, emergency

P-078

A rare cause of tachycardia triggered by acute alcohol intake: WOLFF-PARKINSON-WHITE SYNDROME

Zikret Köseoğlu[1], Yücel Yüzbaşıoğlu[1], İnan Beydilli[1], Ahmet Uzan[1]

[1]mersin Şehir Eğitim Ve Araştırma Hastanesi, Acil Tıp Kliniği

Background and aim: Wolf-Parkinson-White (WPW) Syndrome is a common cause of SupraVentricular Tachycardias (SVT). It is a syndrome defined electrocardiographically. Wolf-Parkinson-White Syndrome is a reentrant tachycardia in which a tachycardia ring develops between the atrioventricular (AV) Node, which is the physiological conduction system of the heart, and the pathologically found accessory pathway (AR). Common causative factors triggering cardiac arrhythmias include hypovolemia, hypothermia, epinephrine surge, and ethanol.

Case: An 18-year-old patient, who had no known disease or history of drug use, was brought to the emergency room by the 112 ambulance after palpitation and fainting that started after alcohol consumption. Vital signs of the patient; BP: 100/60 mmHg, fever: 36.9 C, heart rate: 147/minute, rhythmic, peripheral SAT02: 96%. On physical examination, the patient was consciously drowsy. In arterial blood gas, blood glucose was: 116 mg/dl, in blood gas was Ph: 7.34, Lactate: 2.3, FO2Hb: 85.8, FCOHb: 6.3, potassium: 3.5 mg/dl and blood ethanol level: 296.3mg/dl. While the initial ECG was in sinus tachycardia rhythm, the control ECG after the treatment was in sinus rhythm, speed: 75 beats/min, Delta wave was observed in the precordial leads between V2 and V6. Cardiology consultation was requested with the preliminary diagnosis of WPW, and the patient was discharged with the recommendation of a cardiology outpatient clinic control.

Conclusions: Common causative factors triggering cardiac arrhythmias include hypovolemia, hypothermia, epinephrine surge, and ethanol. This is further corroborated by the spontaneous resolution of tachyarrhythmia following correction of hypothermia and hypovolemia resulting from excessive alcohol consumption. It is a fact that should not be forgotten that excessive alcohol intake triggers tachy-arrhythmias. In addition, control ECGs should be taken and carefully reviewed in all patients with tachyarrhythmia when the heart returns to its normal rhythm. In addition, we aimed to draw attention to the problem of excessive alcohol consumption in the adolescent period.

Keywords: WOLFF-PARKINSON-WHITE SYNDROME, acute alcohol intake

P-126

TOXIC ALCOHOL POISONING DUE TO COLOGNE INTAKE

Alperen Şahin[1], İbrahim Altundağ[2], Oğuzhan Güven[1], Selen Özdemir[1], Burcu Genç Yavuz[1], Şahin Çolak[1], Mustafa Ahmet Afacan[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Intoxications due to the intake of methanol, ethylene glycol and isopropanol are called toxic alcohol poisoning.Both the amount of intake and the chemical component of alcohol are the most important parameters that determine the clinical status in acute poisoning.Toxic alcohol poisoning often presents with retinal, ophthalmic and neurological findings.Our aim with this case report is to emphasize that toxic alcohol poisoning can have atypical presentations and the most important clue is to suspect intoxication in diagnosis.

Case: A 56-year-old male patient with mental retardation was brought to the emergency room via ambulance due to drinking cologne.He was confused and had toxic appearance.His blood sugar was 80 mg/dl.Blood gas showed pH:6.62 pCO2:50.7mmHg HCO3:5mmol/L Lactate:8.82mmol/L and Hb:15.9g/dL.IV isotonic infusion was started quickly and monitoring was performed. In the follow-up, cardiac arrest was developed due to asystole in ten minutes.After three cycles of CPR, spontaneous circulation was obtained.The patient was taken to the intensive care unit and hemodialysis was applied.The serum ethanol level was 0 mg/dl. On the 2nd day of follow-up in the intensive care unit, despite intermittant hemodialysis the patient died due to multiple organ failure (MODS).

Conclusions: Early blood gas analysis has high importance in the management of toxic alcohol poisoning.Serum pH, bicarbonate, osmolar gap, anion gap must be evaluated with blood gas analysis immediately after patient's admission.High anion gap metabolic acidosis is common.The serum ethanol level should be requested in the differential diagnosis, but ethanol result should not be waited at the starting point of treatment.Because poisonings are characterized by high morbidity and mortality.Applying hemodialysis in indicated cases will increase survival and recovery rates without sequelae.Cologne purchases should not distract clinicians from the diagnosis of toxic alcohol.It should be kept in mind that cologne-style liquids with uncertain production conditions may contain toxic alcohol instead of ethanol.

Keywords: toxic alcohol, cologne, multiple organ failure (MODS)., blood gas analysis

P-059

Diagnosis of Right Atrial Tumor In The Patient Presented With Abdominal Swelling

Semih Korkut[1], Serhat Nuhoglu[1], Amine Eslem Basıbuyuk[1], Kemal Sener[1], Mucahit Kapci[1]

[1]Basaksehir Cam and Sakura City Hospital

Background and aim: Cardiac tumor include beningn and malignant neoplasms rising within the cardiac chambers.Primary cardiac tumors are rare, occuring approximately 30 times less frequently than cardiac metastases.1İn a study Armed Forces İnstitute of Pathology, approximately %70 of cardiac tumors were benign and %30 malignant and potentially capable of invasion or metastasis.2İn a more recent study of 533 primary tumors removed surgically, %10 were malignant.3The most common primary tumor of the heart is benign myxoma.The most common malignant tumor of the heart is angiosarcoma.Prognosis of primary malignant cardiac tumors is poor.Etiology and epidemiology vary according to histological type.

Case: CASE PRESENTATIONHistory27 year-old man with history of dyspne and swellling in the abdomen for ten days. He has pericarditis history 6 mounth ago ang being followed by cardiology department.He had tachycardia with dyspne that increased and exertion.Family HistoryBoth parents alive and wellSocial HistoryNo history of tobacco, alcohol or other drug useMedicationsNo history of drug use or chronic disease.Physical ExaminationVital Sign: Afebryl, SpO2:98, BP:125/65, HR: 130 Respiratory examination is natural.Cardiac examination: Cardiac sounds ar deep, S1/S2 is natural and no additional sound.Abdominal examination: Abdomen is swelling. There is no tenderness, defance and rebound. Extremity examination: Bilateral pretibial edema is +/+Laboratory Data:CBC:WBC: 12.760 (3910-10900)NEU: 10090 (1800-6980)Biochemistry:CRP: 69.9 mg/L (0-5 mg/dL)ALT: 53 U/L (0-50 U/L)GGT: 84 U/L (8-61 U/L)PT/INR: PT/sn: 12.6 sn (8.4-10.6 sn)PT/INR: 1.4 (0.8-1.2)Troponin T: 32.3 (0-14 ng/L)ImagingEchocardiograpghy: There is a right atrial heterogeneus tumor that size about 7cm*10cm with pericardial effusion.Abdominal/Pelvis CT with Contrast: Pericholestatic fluid and free fluid in abdomenThoracal CT Non-contrast: There is a right atrial mass.TreatmentCardiac tumors that even asymptomatic, treatment is surgery to prevent valvular disease, heart ffailure, sudden death from embolization and arrythmia or methastasis.

Conclusions: ResultsCardiac tumors are rare. There is risk of morbidity and mortality due to embolization and arrythmias. Clinical features mimic valvular disease and heart failure,.The clinical symptoms depend on size and location.The histopathology is the only way for the definitive diagnosis.Echocardiography has importance for diagnosis of cardiac tumors in emergancy department.Complete surgical resection is the main treatment.

Notes (Optional): Cardiac tumors are rare. There is risk of morbidity and mortality due to embolization and arrythmias.

Keywords: Cardiac tumors, Echocardiography

P-032

A Rare Presentation of Urinary Tract Infection: Purple Urine Bag Syndrome

Mücahit Şentürk[1], Mehmet Esat Ferhatlar[1], Yavuzselim Koca[2], Edip Burak Karaaslan[1], Asım Kalkan[1]

[1]S.B.Ü. Prof. Dr Cemil Taşcıoğlu Şehir Hastanesi
[2]S.B.Ü. Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

Background and aim: In purple bladder syndrome, the urine collection bag and tubing system turns purple. Purple bladder syndrome was first described in 1978. [1] It is rare in clinical practice and is indicative of urinary tract infection. It is characterized by the production of indigo (blue) and indirubin (red) pigments due to bacterial co-lonization in the urinary catheter, and more common in chronically catheterized and constipated women.[2] We present the case report of a female patient who was admitted to the emergency department.

Case: A 74-year-old female patient complained that her urinary catheter bag turned purple and she had fever. In the history, it was learned that she had hypertension, diabetes, chronic kidney disease, cerebral infarction and neurogenic bladder. The patient had chronic urinary foley catheter use. She was on foley catheter for 6 months. Vital signs were BP: 132/71 mmHg, Body Temp: 38°C. On microscopic examination, urine leucocytes: 88 and urinary pH was 5.5. Urine culture was positive for Escherichia coli (>105 colony forming units/mL). Her serum creatinine was 1.35 mg/dL. A diagnosis of purple urinary bag syndrome was made. Her catheter was replaced and she was treated with culture-guided antibiotics. The patient was informed about the benign nature of this discoloration.

Conclusions: In the pathogenesis, a chain of reactions starts with the deamination of tryptophan in the tube and bag. Tryptophan turns into indole, indole turns into indoxyl sulphate by hepatic conjugation and indoxyl sulphate is secreted into urine. Sulphatases and phosphatases enzymes produced by bacteria like Klebsiella, Proteus, Escherichia coli, Enterococcus spp., Pseudomonas, and group B streptococci convert indoxyl sulphate to indoxyl. Indole oxidized to blue indigo and red indirubin. With the combination of indigo and indirubin, the urine collection bag turns purple.[3] The discoloration itself is benign.[4] Management includes replacement of the catheter and urine collection bag along with treating the underlying infection with appropriate antibiotics. For the patient, the bluish discoloration of their urine can be worrisome. It is important for physicians to have knowledge about the pathogenesis and management of this disease in order to relieve the patient's anxiety.

Keywords: purple bag syndrome, infectious diseases, urinary tract infection

P-088

Chronic subdural hematoma

Yeşim Aylin Kalafat[1], Hazel Deniz Erdoğan[1], Burak Alper Mollaoğlu[1], Selin Çakıcı[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Gülgün Battal[1]

[1]Kartal Dr Lütfi Kırdar Şehir Hastanesi

Background and aim: İntroduction: Subdural hematoma (SDH) is a form of intracranial hemorrhage characterized by bleeding into the space between the dural and arachnoid membranes surrounding the brain. Patients with significant cerebral atrophy, those who use antithrombotic medications, or who have other sources of coagulopathy are at an elevated risk for SDH. The incidence of chronic SDH ranges from 1,7 up to 20,6 per 100,000 persons/ year. This risk appears to be increasing over time, likely as a consequence of an aging population and the increased use of antiplatelet and anticoagulant medications. Chronic SDH is more common in older than younger patients, who are likelier to have cerebral atrophy. In this study, we aimed to present our chronic subdural case in a patient who presented with neurological deficit.

Case: A 76-year-old male patient presented to the emergency department with the complaint of inability to hold objects in his left hand. There was no history of trauma. His medical history included hypertension and diabetes mellitus. There was use of ASA. Vital signs were blood pressure 180/100 mmHg, heart rate 95/ minute, saturation 94, and fever 36,8. No pathology was detected in the physical examination. No pathology was detected in blood tests. Computed brain tomography revealed a 2,5 cm chronic subdural hematoma in the right temporofrontal region (Figure 1). The patient was admitted to the neurosurgery clinic.

Conclusions: Chronic subdural haematoma is predominantly a disease of the elderly. It usually follows a minor trauma. A history of direct trauma to the head is absent in up to half the cases. The common manifestations are altered mental state and focal neurological deficit. Neurological state at the time of diagnosis is the most important prognostic factor. In patients presenting to the emergency department with headache, history should be questioned well and should be considered chronic subdural haematoma the differential diagnosis.

Keywords: subdural haematoma, headache

P-152

Bilateral scapular fracture after electrical injury

Zeina Akçadağ[1], Asım Kalkan[1]

[1]Prof Dr Cemil Taşçıoğlu Şehir Hastanesi

Background and aim: Introduction Electrical injuries are a complex form of trauma that is often associated with high morbidity and mortality. The severity of the injuries depends upon the type of current, the voltage, and the resistance.Electrical injuries can be separated based on low-voltage or high-voltage injuries, The risk for serious and fatal electrical injury increases with voltage especially > 600 V. High voltage is usually defined as >1000V. Electrical induced injuries can occur via several mechanisms1. Direct tissue damage from the electrical energy 2. Tissue damage from thermal energy 3. Mechanical injury from trauma induced by a fall or muscle contraction

Case: A 41-year-old man without any systemic disease or drug history presents to a Emergency Department after he suffered an electrical shock on his right hand. He gave a history of touching some live wires with his right hand from a contact with a 220 V of alternating current in his workplace. He was in contact with the wiring for no longer than 5–10 s. He had no chest pain and remained conscious but experienced weakness and pain in his shoulders. There weren't any entry wounds. Radiographs revealed a bilateral scapular fracture there were no associated fractures of the shoulderComputerised tomography was performed to assess the extent of the fracture He was discharged with a 8 bandage and physiotherapy exercises

Conclusions: DiscussionScapular fractures are uncommon injuries and usually associated with direct high-energy trauma. Fractures from electrical shocks usually occur when the victim falls after the accident. Scapula fractures as a direct result of electrical shock are very rare and the reported cases most of them are associated with a low frequency current.The most common injury after electrocution is posterior fracture/dislocation of the shoulderConclusionScapular fracture as a result of electrical injury is uncommon but should be suspected in a patient with shoulder pain without a posterior dislocation. The vast majority of patients can be treated with a sling and physiotherapy, with a very good prognosis and little need for long-term follow-up.

Keywords: Scapular, Fracture, Electrical, Injury, Trauma

P-115

A RARE CASE: BILATERAL CALCANEUS FRACTURE

Serhat Çakır[1], Melih Yüksel[1], Mehmet Oğuzhan Ay[1], Halil Kaya[1], Umut Ocak[1], Enad Kenan[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Calcaneus fractures are the most common tarsal fractures, accounting for approximately 60% of all tarsal fractures. Fractures of the calcaneus are most often the result of high-energy trauma. There is usually a history of falling from a height such as a ladder. Other causes of calcaneus fracture include traffic accidents and sports injuries. In addition, stress fracture can be observed in the calcaneus, which can be seen in athletes such as long-distance runners, but mostly in the chronic process. Complications of calcaneus fractures and surgical treatment are early wound dehiscence, skin necrosis, infection, neurovascular injury, thromboembolic events, and compartment syndrome. In addition, since calcaneal fractures occur as a result of high-energy trauma, spinal traumas may accompany it, so spinal injuries should also be considered and investigated in patients.

Case: A 35-year-old male patient who applied to the emergency department stated that he fell on his feet from a height of 2 meters while unloading materials at the workplace. On examination, the patient had swelling and tenderness in the lateral and medial malleolus region of both ankles and in the heels, and had no neurological deficit. No sensory or motor deficit was observed. In the imaging of the patient whose vital signs were stable, fragmented fractures were observed in both calcaneus. Lumbar and thoracic vertebra tomography performed in terms of accompanying spinal injuries did not reveal any features. The patient did not have any other accompanying trauma. The short leg splint was placed on both feet and the orthopedic surgeon was consulted. He was admitted to the orthopedics department and surgical treatment was planned.

Conclusions: In trauma patients, the mechanism of the formation of trauma and the situation before the trauma leads to changes in the subsequent diagnosis and treatment. The mechanism of trauma should be revealed by detailed anamnesis and physical examination, and it should be investigated in detail by considering the accompanying pathologies. Since bilateral calcaneus fractures are rare cases and usually occur as a result of high-energy trauma, accompanying spinal traumas should be investigated in detail and appropriate anamnesis, physical examination and examinations should be performed.

Keywords: Emergency department, trauma, calcaneus, fracture, spinal injury

P-133

PATIENTS WITH NAUSEA AND VOMITING SHOULD BE ASKED ABOUT THE USE OF DIGOXIN

Ebru Adalı[1], Dilek Durmaz[1], Tuncay Kuş[1], Mehmet Oğuzhan Ay[1], Melih Yüksel[1], Halil Kaya[1], Umut Ocak[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Digoxin is a drug that blocks the sodium-potassium ATPase pump and is commonly used in the treatment of heart failure. It has positive inotropic and negative chronotropic effects. The therapeutic and toxic dose range of digoxin is narrow, so intoxication can easily develop. Chronic intoxications may develop even at the upper limit of the therapeutic dose. In this presentation, we aimed to emphasize that the use of drugs with a narrow therapeutic dose range, such as digoxin, should be questioned in elderly patients with complaints such as nausea and vomiting.

Case: A 70-year-old male patient was brought to the emergency service by the 112 ambulance with the complaint of nausea and vomiting. The patient had a history of hypertension, diabetes mellitus, heart failure, and atrial fibrillation. It was learned that the patient applied to the emergency department with the same complaints (nausea, vomiting) a week ago, and was hospitalized in the coronary intensive care unit due to the high serum digoxin level. The patient was conscious, GCS 15, oriented and cooperative. The patient's temperature was 36.3 °C, blood pressure was 135/90 mmHg, SPO2 was 97%, and pulse was 37 beats/minute. Her heart sounds were arrhythmic and bradycardic. In her ECG, her heart rate was 35 beats / minute, and she had atrial fibrillation with low ventricular response. ST segment depression was observed in the lateral leads. In the patient's examinations, serum digoxin concentration was found to be 1.88 ng/ml. The patient was consulted to the cardiology and hospitalised.

Conclusions: Digoxin with a narrow treatment range (0.5-1.3 ng/dl) should be used with caution in elderly patients with low muscle mass, decreased creatinine clearance. Patients may present with cardiac (dysrhythmia, palpitations, syncope..), gastrointestinal (nausea, vomiting, diarrhea, abdominal pain..) and neurological (blurred vision, confusion, drowsiness..) symptoms. When intoxication is detected, the first thing to do is to discontinue the drug. In case of symptomatic bradycardia or complete atrioventricular block, temporary pacemaker can be applied to stabilize the patient's hemodynamics, and specific treatments such as digoxin binding antibody (Fab) or hemodialysis can be applied in unresponsive cases.

Keywords: Digoxin, intoxication, nausea

P-012

THE IMPORTANCE OF COMPUTERIZED TOMOGRAPHY IN THE PRESENCE OF HEAD INJURY IN PATIENT WITH ALCOHOL

Kemal Yıldırım[1], Erdem Çevik[1], Dilay Satılmış[1], Abdullah İlhan[1]

[1]Sultan Abdülhamid han eğitim araştırma hastanesi acil tıp kliniği

Background and aim: Patients who apply due to trauma may not be able to questioned in detail for reasons such as impaired consciousness, lack of relatives that we can be informed about the patient, alcohol or substance use, and a complete physical examination may not be properly done on these patients. Head trauma is one of the most important causes of mortality and morbidity in the population over 45 years of age in developed countries. The secondary damage caused by the impact on the bone structures opposite the area exposed to the head trauma is called "contrecoup"(1).

Case: A 76-year-old male patient was brought to our emergency department by ambulance because of hitting the back of his head against the wall as a result of staggering down the stairs after alcohol use. The patient hahistory of hypertension and previous ischemic cerebrovascular disease. It was learned that he used 100 mg of acetylsalicylic acid daily. Vital values were measured as blood pressure 112/87 mmHg, heart rate: 60 beats/min, SpO2: 90%. The patient was in moderate general condition, tended to sleep, and had poor orientation and cooperation. No external lesion was detected in the primary examination. The physical examination could not be evaluated clearly due to the patient's unconscious state. The patient, whose Glasgow coma score (GCS) was calculated as 13, was evaluated in the middle traumatic brain injury class according to the Canadian Brain Computed Tomography (CT) Rule, and CT was planned in the ED. The patient, whose subdural and subarachnoid hemorrhage was detected in the brain CT, was consulted with a neurosurgeon and was admitted to the intensive care unit for follow-up and treatment.

Conclusions: In alcoholic patients admitted to the emergency department, disturbances in consciousness, loss of balance, and drowsiness may be observed due to alcohol intake. This may be due to alcohol intake or intracranial hemorrhages due to trauma. Therefore, it should not be forgotten that cranial imaging with CT should be performed in the differential diagnosis of alcoholic patients(2).

Keywords: alcohol, computed tomography, elderly patient

P-002

COVID INFECTION-RELATED CORPUS CALLOSUM SPLENIUM LESION, A CASE REPORT

Alperen Şahin[1], İbrahim Altundağ[2], Burcu Genç Yavuz[1], Mustafa Oğuz Alp Çelik[1], Oğuzhan Daltekin[1], Şahin Çolak[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Corpus callosum; it's a white matter structure consists myelinated neurons, whose main task is to provide communication between the two hemispheres.The splenium region(SCC) is the thickest and posterior region of the corpus callosum.Main functions of the SCC have not been definitively determined.Various congenital and acquired diseases can lead to different neurological signs and symptoms such as confusion, ataxia, dysarthria and seizures with SCC involvement.The mechanism of SCC involvement has not been fully elucidated.Diseases to be considered in the differential diagnosis of patients with SCC lesions are viral infections, multiple sclerosis, hydrocephalus, AIDS, lymphoma, epilepsy, B12 and folate deficiency, ischemic cerebral pathologies.

Case: A 34-year-old male patient without any known disease or drug use was admitted to the emergency department with the complaints of confusion and dysarthria.He was on the 3rd day of Covid-19 disease and had neurological complaints since yesterday.GCS:14, fever:37.2oC, blood pressure:120/80mmHg, pulse:96/min, spO2:96%.On physical examination, diffuse rales were detected in both lungs.Neurological examination was normal.There wasn't any pathology other than creatine kinase(CK) elevation (1000 Iu/l) in laboratory results.There was no pathology in cranial CT.In diffusion MRI, acute diffusion restriction was observed in corpus callosum splenium in DWI and extinction in the same region in ADC.There was no sign in FLAIR sequence.It was thought a cytotoxic lesion secondary to covid-19 infection in the SCC region.The patient was admitted to the pandemic service for neurological follow-up.

Conclusions: Covid-19 is an infectious disease with systemic involvement that can cause serious neurological pathologies and even death. Neurological pathologies due to viral infections, including Covid-19, can be seen in all age groups, unlike most other diseases that increase in frequency in certain age groups.Therefore, periodic neurological examination should be performed in the follow-up of patients in all age groups who are positive for covid-19.New neurological findings should be taken seriously and evaluated immediately.

Keywords: covid-19, corpus callosum splenium, neuropathy, neurotoxicity

P-069

Frostbite Case Report

Bilal Yeniyurt[1], Vildan Avcu[1], Ümran Arasan[1], İsmail Enver Obuz[1], Cesareddin Dikmetaş[1], Serkan Doğan[1]

[1]Istanbul Health Sciences University, Kanuni Sultan Suleyman Training and Research Hospital Emergency Medicine Clinic, Istanbul, Turkey

Background and aim: Freezing results from direct cold injury to the cell, vascular insufficiency (constriction and vasoocclusion), and damage by inflammatory mediators. The resulting vasoconstriction is an effort to maintain core body temperature at the expense of the distal extremities. The annual incidence of severe frostbite is 1.1% (1.6% and 0.6% for men and women, respectively). The cumulative lifetime incidence of severe frostbite was 10.6% (14.1% and 7.4% for men and women, respectively). Frostbite is more common in men than women, and its incidence decreases over the age of 65.

Case: A 38-year-old male patient presented to the emergency department with the complaint of pain in the feet as a result of disappearance after hiking on the mountain. The general condition was good, the patient was conscious, oriented, and cooperative, and the GCS was evaluated as 15. In his vitals,he had a TA 120/80 pulse: 80 fever: 37.5 respiratory rate: 18. In the physical examination of the patient, there is a lesion in the phalanx of the right foot, which is evaluated as grade 3 frostbite (picture 1,2). In the routine examinations taken, infectious parameters were unremarkable except height. The patient was consulted to orthopedics and cardiovascular surgery. Service internment for amputation was planned for the patient who was found to have no circulation on CT angiography.

Conclusions: The number of people who apply to the emergency department with frostbite is decreasing every year, but it is always possible to encounter them in emergency services, with walking and climbing sports being active. Rapid intervention in patients who come to the emergency room with hypothermia is of great importance in terms of morbidity and mortality. Society should be made aware of the first approach.

Notes (Optional): There will be two photos about our patient

Keywords: frostbite, amputation, hypothermia

P-043

AN IMPORTANT CAUSE OF MORTALITY IN ELDERLY PATIENTS: ACUTE MESENTERIC ISCHEMIA

İbrahim Altundağ[1], Alperen Şahin[2], Burcu Genç Yavuz[2], Mustafa Oğuz Alp Çelik[2], Şahin Çolak[2]

[1]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul
[2]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Acute mesenteric ischemia is a pathology with high mortality and morbidity, which is seen in patients presenting to the emergency department with abdominal pain.Although it's less frequent than other abdominal pathologies, it should be considered in the differential diagnosis in elderly patients.Mortality rates in acute mesenteric ischemia reach up to 70% in cases where early diagnosis and treatment cannot be applied.Its incidence is increasing in patients with comorbidities such as atrial fibrillation that increase the risk of thrombosis and especially in the geriatric patient population.Our aim with this case report is to raise awareness of acute mesenteric ischemia, a diagnosis that is often neglected by emergency physicians due to its low incidence.

Case: An 89-year-old male patient with a known history of coronary artery disease, hypertension and dementia was admitted to the emergency department with nausea, abdominal pain, severe diarrhea that started four days ago, and a feeling of malaise that started today. He was using metoprolol, clopidogrel and acetylsalicylic acid.GCS:15, blood pressure:92/40mmHg, pulse:72/min, oxygen saturation:98%, and fever:36.7oC. There wasn't defense or rebound on abdomen.Rectal examination was normal.Leukocytes:11.000/uL, neutrophils:9.100/uL, hemoglobin:16.4g/dl and platelets:101.000/uL were detected.In blood gas pH:7.21, lactate:2.4mmol/L, bicarbonate:19mmol/L were detected.Serum creatinine level was 1.6mg/dl.Mehran contrast nephropathy risk score was calculated to perform abdominal CT angiography for differential diagnosis.Thrombus was detected in the superior mesenteric artery in abdominal CT angiography.The patient was taken to urgent surgery.In the post-op intensive care follow-ups sepsis developed and patient died on the post-op 3rd day.

Conclusions: Acute mesenteric ischemia is a pathology characterized by arterial thrombus, usually develops due to embolism of cardiac origin.Sudden onset severe symptoms and toxic-appearance profile are the most important clues in the diagnosis.Leukocytosis, persistent-unexplained diarrhea, metabolic acidosis and high lactate are other findings that suggest mesenteric ischemia.The best imaging method for diagnosis is the demonstration of thrombus causing restriction in intestinal blood flow with abdominal CT angiography.Acute mesenteric ischemia should be considered in the differential diagnosis of elderly, comorbid patients who present to the emergency department with sudden-severe abdominal pain, nausea-vomiting or diarrhea.

Keywords: mesenteric ischemia, abdominal CT angiography, thrombus, abdominal pain

P-049

THE IDEAL APPROACH TO OVARIAN TORSION IN THE EMERGENCY DEPARTMENT

Burak Özçelik[1], İbrahim Altundağ[2], Alperen Şahin[1], Metin Öner[3], Burcu Genç Yavuz[1], Şahin Çolak[1], Mustafa Ahmet Afacan[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul
[3]Hatay Dörtyol State Hospital, Department Of Emergency Medicine, Hatay

Background and aim: Ovarian torsion is a serious gynecological surgical emergency that occurs when the ovary is bent over ligaments that support its position in the adnexal region.The ovary is supplied with blood through both ovarian arteries and uterine arteries(dual).The position of the ovary is maintained by being attached to the pelvic side wall by the infundibulopelvic ligament and to the uterus by the uteroovarian ligament.Twisting of these ligaments causes venous occlusion, edema, ischemia and eventually ovarian hypoperfusion due to compression of the arteries.Ovarian torsion risk factors include ovarian cysts larger than 5 cm, neoplasms, pregnancy and fertility treatment. In this article, we aimed to emphasize the positive contribution of transabdominal USG performed in the emergency department on diagnosis and access to treatment.

Case: A 25-year-old female patient without known disease was admitted to the emergency department with abdominal pain.G0.Fever:36.5°C, blood pressure:123/66mmHg, pulse:95/min, SpO:99%, respiratory rate:18/min. There was tenderness, defense and rebound in the right lower quadrant of the abdomen.On transabdominal USG performed at the bedside in the emergency room, 85mm and 50mm diameter cystic structures in the right adnexal area and minimal fluid in pelvis were observed.In addition, due to the increased size of right ovary, transabdominal pelvic color Doppler USG requested.In Doppler USG, there wasn't flow in the vascular structures in the right ovary.In laboratory parameters WBC:14400/uL, NEU:12400/uL, Hb:13.7gr/dL, pH:7.38, PCO2:34.6mmHg, HCO3:20.1mE/L, lactate:5mmol/L were determined.The patient was consulted to the obstetrics and gynecology department with a preliminary diagnosis of ovarian torsion.She was taken to emergency laparotomy, detorsion was performed and she was discharged with full recovery.

Conclusions: There may be many underlying causes in a female patient presenting with abdominal pain.Ovarian torsion is one of the leading causes of abdominal pain, especially in women of childbearing age, for which time is very valuable.In case of delayed diagnosis and treatment, it can cause necrosis, ovarian loss and infertility. An increase in ovarian size, ovarian cysts, and fluid monitoring in the pelvis on transabdominal ultrasound are the main sonographic findings that approach the diagnosis of torsion.In addition, performing this procedure by emergency physicians following the patient's application will significantly shorten the diagnosis time.

Keywords: ovarian torsion, doppler USG, fertility, abdominal USG, bedside USG

P-011

THE PATİENT WHO USE A NEW GENERATION ORAL ANTICOAGULAN- EDOXABAN- HAD REKTUS SHEAT HEMATOMA AFTER COUGH DUE TO COVİD19

Selin Korkmaz[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Sarper Yılmaz[1], Rohat Ak[1], Ergül Kozan[1], Egemen Sav[1], Berk Çakmak[1]

[1]S.B.Ü. Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Rectus sheath hematoma(RSH) is a condition that results from rupture of the rectus muscle or epigastric vessels. The most common cause of RSH; anticoagulant and antiaggregant therapy use, elderly patient and female gender, chronic medical drug use, asthma and Chronic Obstructive Pulmonary Disease. Abdominal pain, constitutes an important part of the applications to the emergency department (ED), but rectus sheath hematoma is a rare and overlooked cause of abdominal pain.

Case: A 67-year-old female patient applied to ED with the complaints of cough and abdominal pain.In addition, she shared the same house with a patient diagnosed with COVID-19. The patient had a history of Diabetes Mellitus, Hypertension, atrial fibrillation and cerebrovascular disease. Medical treatments are; Lercanidipine, Metformin and Edoxaban. Vital parameters; blood pressure: 130/60mmHg, pulse: 78beats/minute, respiratoryrate: 12beats/minute, fever: 37.2 °C.Her EKG was in Af rhythm.In physical examination, in the right lower quadrant of abdomen; there was palpable stiffness and tenderness. Blood tests were performed on the patient; hemoglobin:11.1 g / dL, hematocrit: 36.7%, INR:1.45 and other results were within the laboratory reference range. The patiente evaluated with abdominal ultrasonography. In USG; Omental fatty tissue herniation without strangulation and an anechoic lesion with multiple septations of 102x33 m, continuous with the right rectus muscle, were observed in the right inferior of the umbilicus. For further viewing; abdominal computed tomography with intravenous contrast was performed and an asymmetrical increase of density in the rectus muscle and an appearance consistent with a hematoma in the muscle were observed.Meanwhile, the COVID-PCR test was positive. The patient was diagnosed with rectus muscle rupture and rectus sheath hematoma secondary to increased intra-abdominal pressure due to cough and concomitant use of anticoagulants.The patient was followed up by interned in General Surgery Clinic.

Conclusions: Abdominal pain is one of the common reasons for referral to ED. It should not forgotten that the intra-abdominal pressure increases due to cough during the COVID-19 period, and rare diseases such as rectus sheath hematoma, abdominal wall pathologies and retroperitoneal bleeding should also be included in the differential diagnosis in patients who apply to ED with abdominal pain, especially in patients using anticoagulants.

Keywords: abdominal pain, hematom, COVID-19, intraabdominal pressure

P-089

Facial Paralysis After Head Injury

Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Senem Ayvacı[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Facial paralysis is a paralysis that develops due to dysfunction or damage anywhere along the entire trace of the N. facialis. Facial paralysis is divided into two as central and peripheral. In central facial paralysis, unilateral damage to the corticobulbar pathway at any level between the cortex and the pons causes upper motor neuron type paralysis in the lower part of the face on the opposite side of the lesion. In this case, we will see the example of central facial paralysis caused by post-traumatic infarction.

Case: A 47 years old male patient was adnştted to the energency department with facial asymmetry after a head-on collision. Vital signs on admission were as; TA:130/87 mmHg , pulse:78 per minute, fever:37 C. SO2:%98. Physical examination revealed left peripheral facial paralysis. Other system findings were normal. And there was no known chronic diseases.

Conclusions: In the first stage, it was thought that there was a brain hemorrhage. No pathological finding was found in the brain tomography. In the diffusion MRI taken later, an acute infarct area was observed in the corona radiata adjacent to the right latheral ventricle trunk section. The patient was consulted to the neurology department and later admitted to the neurology service.

Keywords: facial paralysis, head injury, acute infarct

P-007

A Case of Herpes Zoster Ophthalmicus Diagnosed in the Emergency Department

Ezgi Seyhan Yılmaz Ayan[1], Melih Yüksel[1], Umut Ocak[1], Mehmet Oğuzhan Ay[1], Halil Kaya[1], Tuncay Kuş[1]

[1]University of Health Sciences Turkey, Bursa Faculty of Medicine, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa,Türkiye

Background and aim: Varicella Zoster Virus (VZV) or Human Herpes Virus 3, known to be responsible for shingles and chickenpox infections, is a member of the Herpesviridae family and its only host is humans. The primary infection picture in susceptible individuals is chickenpox . Herpes zoster ophthalmicus occurs when the VZV is reactivated in the ophthalmic branch of the trigeminal nerve and constitutes approximately one quarter of all herpes zoster cases .

Case: A 70-year-old female patient presented to the emergency department with complaints of redness and swelling that started in the left ear, eye and cheek 2 days ago (Figure 1). The patient with known Diabetes Mellitus disease was found to be stable on admission vital signs. In the physical examination of the patient, erythema, increased temperature and edema were detected in the left half of the face. There was no tragus tenderness. The bilateral tympanic membrane was intact. Bilateral external auditory canal was normal. Eye examination was also evaluated as normal. The diagnosis of shingles was considered in the foreground in the patient. Medical treatment was arranged for the patient, who was consulted with the relevant departments, and the patient was called for outpatient control.

Conclusions: VZV remains latent in the dorsal root ganglion after primary infection and reactivation may develop in some individuals. It has been reported that risk factors for reactivation are any condition that causes a decrease in T cell-mediated immune response caused by "Human Immunodeficiency Virus (HIV)" infection and immunosuppressive drugs, or advanced age in immunocompetent individuals. Herpes zoster (shingles) is an infectious disease that develops as a result of reactivation and is characterized by vesicular eruptions, most commonly thoracic, involving cervical, ophthalmic and lumbosacral dermatomes. It has been reported that approximately 10-20% of people infected with VZV develop shingles. Up to 4% of patients who develop herpes zoster are hospitalized and treated for reasons such as bacterial superinfection, eye involvement, and severe long-term pain. With this case report, we wanted to emphasize the importance of early diagnosis and treatment of Herpes Zoster Ophthalmicus (HZO) disease in order to prevent vision loss in advanced age patients with immunosuppression.

Keywords: Chickenpox virüs, emergency department, herpes zoster ophthalmicus

P-136

BEAD GUN INJURY

Servan Velat Bilgeç[1], Bülent Yılmaztürk[1], Hazel Deniz Erdoğan[1], Burak Alper Mollaoğlu[1]

[1]Kartal Dr. Lütfi Kırdar Eğitim Ve Araştırma Hastanesi

Background and aim: In our country, injuries and deaths with firearms, which are very easy to obtain through legal or illegal means and are getting easier day by day, are pretty common nowadays. In this case, we aimed to present the management of the patient admitted to the emergency department with a gunshot injury.

Case: 15-year-old male patient was admitted to the emergency department with a gunshot wound to the chest area. In the patient's anamnesis; It was learned that he was shot in the chest area with a blank gun. It was learned that a bead was placed on the tip of the gun. Measured vital parameters were blood pressure 100/56 mm/hg, heart rate:95/min room air saturation was 95%.In the physical examination; There was a bullet entry hole and a gunpowder burn 4 cm above the right nipple. patient looked pale and sweaty. Lung sounds were decreased in the lower right zone, and his abdominal and neurological examinations were normal. Pericardial effusion was detected in bedside ultrasonography. double-extremity wide venous vascular access was opened. The intravenous fluid replacement was started. Antibiotics and tetanus prophylaxis were administered. Thoracic computed tomography angiography was requested. In the desired imaging, hemothorax and pericardial tamponade were detected in the right hemithorax. Left 7.8. foreign body was detected on the jeans' inner surface at the rib level. In his follow-ups, his blood pressure was 60/35 mm/hg, respiratory rate was 25-30/min, and his consciousness was confused. Norepinephrine for positive inotropic purposes was started. In blood tests,hemoglobin is 11.5 g/dl.1.Post-hours control hemogram;10.5 g/dl was detected.Thoracic surgery, cardiovascular surgery (CVC), and general surgery consultations were requested. tube thoracostomy was performed by the thoracic surgeon. He was taken to emergency operation by CVC due to tamponade.

Conclusions: Initial physical findings may not correlate to actual injuries, and the physician may face a more severe case than anticipated. Many of these patients could be spending the golden hours of trauma in admission. Early evaluation and intervention in patients with gunshot injuries are, therefore, of the most importance.FAST and CT are steadily becoming more important in the diagnosis of thoracic and abdominal injuries.

Keywords: Gun shot, injury, tamponade, emergency

P-146

New generation anticoagulant use and traumatic hemothorax: Case report

Elif GÜNHAN[1], Suna ERAYBAR[1], Mehtap BULUT[1], Mustafa TURAN[1], Hüseyin YENİCE[1]

[1]University of Health Sciences Turley, Bursa City Hospital Emergency Department

Background and aim: Hemothorax is a life-threatening condition. Collaps,dyspnea, tachypnea, cyanosis and hemorrhagic shock can develop as a result of blood accumulation in the lung.To protect patients from hypovolemic shock, the lost fluid should be replaced quickly and a thorax tube should be inserted into the patient

Case: A 69 age male patient admitted to our emergency department with right chest pain and shortness of breath. He was hospitalized and discharged from the neurology service 1 week ago due to stoke. Since then, he has been using dabigatran 150 mg as anticoagulant therapy. There is a history of falling out of bed without loss of consciousness on the day of admission. Vitals;pulse: 160/min, blood pressure: 100/60 mmHg, saturation: 96%. GKS 15, oriented, cooperative IR :+/+ pupillary isochoric. Right sequelae paralysis is present. Pain in the right lower thorax, decreased breathing sounds on the right. There is tenderness in the right upper quadrant of the abdomen. In the thorax CT imaging, free loculated pleural fluids up to 5 cm in the right hemithorax was detected. Hemorrhagic characteristic was detected in the diagnostic thoracentesis performed to determine the fluid content. Our patient was intubated in the emergency room after the general condition worsened. Right tube thoracostomy was performed due to hemothorax. 800cc hemorrhagic drainage was observed. Active hemogram decrease was observed and required erythrocyte and blood product replacements were provided. Prothrombin Complex concentrate was administered at a dose of 25 IU/kg to the patient with a history of new generation anticoagulant use. The patient whose hemodynamics became stable was admitted to the intensive care unit.

Conclusions: Today, the use of new generation anticoagulants has become widespread. The lack of antidotes and follow-up methods are the biggest disadvantages of new generation anticoagulants.It is vital to question the use of anticoagulants in trauma patients.. In minor bleeding, we should skip the first dose or interrupt the treatment. We should start fluid replacement and blood transfusion in moderately severe bleeding. In very severe bleeding, we should start activated recombinant factor 7 or prothrombin concentrate. In life-threatening bleeding due to dabigatran: idarucizumab (Praxbind) can be used, but it is not available.

Keywords: hemothorax, New generation anticoag, major bleeding

P-110

Peripheral Artery Disease

Mahmut YAMAN[1], Yunus TİMURAĞAOĞLU[1], Mehmet YILMAZ[1], Abdullah ŞEN[1], Murat ORAK[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Peripheral arterial disease (PAD) is an atherosclerotic disease that causes significant cardiovascular morbidity and mortality, especially in advanced age. In this case, we will talk about a patient whose both lower extremities were necrotized.

Case: An 87-year-old female patient presents to the emergency department with the complaint of shortness of breath, with both feet in a necrotic-gangrenous appearance starting from below the knee, and in a hard and crusted state. He has a history of heart failure and peripheral arterial disease. In the physical examination, the general condition of the patient was moderate, conscious, oriented and cooperative. His blood pressure was 113/71, pulse: 110, respiratory rate: 17, fever: 36.5 degrees, oxygen saturation: 93%. A necrotized extremity with no peripheral pulses, gangrenous and crusted, which started bilaterally below the knee, was observed. The patient had a decrease in bilateral lung sounds. There was atrial fibrillation in the ECG of the patient. No pathology was detected in the laboratory results of the patient. In the radiological imaging of the patient, pleural effusion of 9 cm in the right lung and 4 cm in the left lung was observed. Both feet were necrotized up to the medial tibia and fibula. The patient was admitted to the orthopedic service. Bilateral below-knee amputation was planned. A successful bilateral below-knee amputation operation was performed. After one week of follow-up in the intensive care unit, the patient was discharged.

Conclusions: PAD treatment includes revascularization therapy (angioplasty, stenting or bypass surgery of the lower extremity arteries) as well as medical therapy and exercise rehabilitation. Amputation is the treatment option when revascularization cannot be performed and is unsuccessful, and when lifethreatening gangrene develops in the extremity. In the course of PAD, in addition to the risks of extremity amputation, operation risks during revascularization attempt, severe clinical conditions up to gangrene and sepsis, problems arising from the common involvement of other vessels (such as aorta, coronary arteries, cerebrovascular arteries, renal arteries) by atherosclerosis can also be seen, which requires a multidisciplinary approach. It should be borne in mind that it is a disease.

Keywords: Peripheral Arterial Disease, Knee Amputation, Revascularization

P-099

High Troponin and Ischemic Stroke

Nazmi Toprak[1]

[1]Antalya Eğitim Ve Araştırma Hastanesi Acil Tıp Kliniği

Background and aim: Troponin's an enzyme that shows heart muscle enzyme degradation, which used for patients with chest pain and suspected ACS.High sensitive troponin, which is used in the follow-up of cardiac events, is used.Although its specificity to the heart muscle is quite high, it can be affected by many events.Events that cause the troponin elevation;There are many reasons such as Acut Coronary Syndrome, Cerebrovascular Events,Heart Failure, Sepsis, Chronic Kidney Failures, Myocarditis, Tachycardia, Pulmonary Embolism, Cocaine use.Each troponin elevation should not be associated with ACS and should be re-evaluated in line with the patient's complaints, clinical and physical examination.

Case: A 77-year-old male patient was referred to us with a prediagnosis of NONSTEMI, with complaints of deterioration in general condition and increasing confusion for 3 days. His first vitals: Blood pressure 144/78mm/hg, pulse 87, saturation 98%, fever 36.7%, consciousness semioriental-noncooperated. There are ECG AF+RBBB, ST depressions. On physical examination, left amputee arm 4/5 left lower extremity 2/5 could not cooperate with sensory and cerebellar tests. Pathological laboratory findings; CRP 169, troponin follow-up 2200-1800 ng/dl. ACS was not considered in the patient whose cardiology opinion was taken. Diffusion MRI performed by us showed acute diffusion restriction in the right MCA irrigation area. After evaluation by Neurology, the patient was admitted to the STROKE UNIT with the diagnosis of stroke.

Conclusions: It has been shown in many studies that both High Sensitive Troponin elevation and ischemic ECG changes are seen together with stroke.These rates are seen to be up to 30%. The elevation of troponin accompanying stroke is thought to occur due to increased ketacholminergic discharge due to cerebral ischemia and increased left ventricular workload.In studies, it was predicted that high troponin was associated with in-hospital mortality and disability, but no significant findings could be obtained on 3-month survival.However, it should not be forgotten that patients with high troponin should be kept under close ECG, vital and symptom monitoring, and it should be considered that the patient always poses a risk in terms of ACS.

Keywords: troponin, stroke, Acut Coronary Syndrome

P-097

A Stroke Case in a Toddler

Muhammet Zahit Tursun[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Cerebrovascular accident (CVA) is defined as a neurological deficit due to ischemic or hemorrhagiccauses. CVA is a highly heterogeneous disease in terms of its causes and consequences.Approximately 87% of CVA's develop secondary to ischemia , 19% to parenchymal hemorrhage, and3% to subarachnoid hemorrhage. The presence of advanced age comorbid diseases is a risk factor forCVA. However, it should be kept in mind that CVA can also be seen in young patients without a knowndisease history. In the case we will talk about, a 13-month-old female patient presented withprogressive loss of strength after falling.

Case: 13-month-old female patient who fell on her back 3 days ago and suffered a head injury was admittedwith the complaint of decreased movements in the right upper extremity and then the right lowerextremity, which increased gradually. In the physical examination, motor strength was 3/5 of theright upper extremity, ▯ of the right lower extremity, no additional features. After the examinationand imaging, no pathology was detected in the Computerized Brain Tomography. Diffusion magnetic resonance imaging (MRI) showed diffusion restriction in the left basal ganglia and periventricular area, consistent withenfarction. The patient who was evaluated as CVA was hospitalized for further examination andtreatment.

Conclusions: Although ischemic CVO is among the prediagnoses that come to mind in advanced age patients due toboth age and comorbid diseases, it should be kept in mind that it can also be seen at younger ages indiseases such as coagulopathies and Moyamoya disease.

Keywords: CVA, TODDLER, hemiparesis

P-144

Fatal Damage In Spinal Injury: Spinal Shock

Recep DURSUN[1], Tuba SEKMAN[1], Ahmet Çağrıhan ERTAŞTAN[1], Mehmet Hanifi AĞIRAĞAÇ[1], Serkan YILMAZ[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Spinal cord injuries (SCI) are traumas that can impair spinal cord functions. Spinal shock is the temporary loss of spinal reflexes in areas below the injury due to complete or incomplete spinal cord injury. Male patients constitute 80% of SCI patients. The most common age range is 16-30. Considering the causes of occurrence, motor vehicle accidents take the first place with 44%. This is followed by assault with 24%, falling with 22%, sports injuries with 8% and other causes with 2%. In the resulting clinical picture, 45% complete SCI (28% paraplegia, quadriplegia) and 55% partial SCI (32% quadriplegia, 23% paraplegia) are seen. In this case, spinal shock caused by mechanical trauma will be examined.

Case: A 23-year-old male patient was brought to the emergency room by his relatives after a gunshot wound. On physical examination, the patient had a bullet entry wound on the left lateral side of the neck, and there was no exit site. The consciousness of the patient, who was taken to the resuscitation room, was latergic, his general condition was poor, and he was paraplegic. The patient was intubated immediately. Fluid resuscitation was started in the patient who was hypotensive and tachycardic. 1 unit of erythrocyte replacement was performed. The patient who underwent radiological imaging had fragmented fractures in the cervical 5-6th vertebral corpuscles. The patient was evaluated by the relevant clinics. Emergency surgical intervention was not considered. Spinal shock was considered as the patient's hypotension gradually deepened despite the positive inotropic agent, whose active bleeding was not detected. Corticosteroid treatment was started. He was taken to intensive care follow-up.

Conclusions: Neurogenic shock is a condition that should be considered first and should not be overlooked in cases of hypotension and tachycardia/bradycardia in patients with spinal cord damage. It has been understood that when the diagnosis is missed and appropriate treatment is not performed, it can increase mortality and when early treatment is started, it has serious positive effects on survival.

Keywords: Spinal shock, Spinal trauma, Hypotension, Bradycardia

P-035

A Rare Diagnosis with High Mortality Risk; Esophageal Perforation Complicated with Mediastinitis

Zikret Köseoğlu[1], Yücel Yüzbaşıoğlu[1], İnan Beydilli[1], Şayeste Şevval Demirelli[1]

[1]Emergency Medicine Clinic, Mersin City Training and Research Hospital

Background and aim: Esophageal perforation is a clinical picture with high morbidity and mortality (15-30%) that causes mediastinal or pleural inflammation and infection followed by sepsis in a very short time as a result of disruption of the integrity of the esophagus due to iatrogenic or non-iatrogenic traumas. Fulminant, necrotizing mediastinitis, pneumonitis, or peritonitis can lead to rapid development of shock. Dysphagia, dyspnea, hematemesis and cyanosis may also be observed.

Case: A 62-year-old female patient applied to our emergency department with complaints of fever, chills and chills that started 3-4 hours ago. The patient was diagnosed with esophageal Ca 2 months ago. The general condition of the patient was poor and epigastric tenderness was present at the time of admission. TA: 167/99, Pulse: 151/min Fever: 37.2 Spo2 was 94. The patient's initial blood gas was pH: 7.17, HCO3act: 14.0, BE(B): -13.6, Lactate: 12.6 K: 2.7 Ca: 0.8, and tHB: 9.5. Thorax CT examination; It was interpreted as a collection area (esophageal perforation?) with a thin hypodense line with air densities in the axial approximately 34x25 mm in the subcarinal area in the mediastinum. Endoscopy was performed on the patient with the patient's verse, and a pulsatile bleeding focus was observed at 30 cm of the patient's esophagus, and a stent was placed. Cardiopulmonary arrest developed in the patient whose hemodynamics deteriorated during endoscopy, and CPR was started; The patient who did not respond to cpra was accepted as exitus.

Conclusions: In conclusion, spontaneous perforations of the esophagus are not common; moreover, perforations secondary to malignancy are rare. Our case was also diagnosed with mediastinitis, a fatal complication of rapidly progressing esophageal perforation, which is very difficult to diagnose, and its clinic rapidly deteriorated within hours. Esophageal perforation and its fatal complication, mediastinitis, should definitely be kept in mind when patients with a diagnosis of esophageal Ca apply to the emergency department with such complaints.

Notes (Optional): Esophageal Perforation, Mediastinitis

Keywords: Esophageal Perforation, Mediastinitis

P-067

CARDIAC TAMPONAD DUE TO 2nd TRIMESTER ABORTION

Burak Özçelik[1], Burcu Genç Yavuz[1], Şahin Çolak[1], Mustafa Ahmet Afacan[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Cardiac tamponade is a life-threatening emergency that occurs when pericardial fluid accumulation exceeds the pericardial adaptation capacity(1).On physical examination, signs of hypotension, tachycardia, pulsus paradoxus, and right heart failure are prominent.Infections, autoimmune diseases, neoplasms, uremia and other inflammatory diseases, as well as ventricular wall rupture and penetrating injury that develop after myocardial infarction, which causes rapid blood accumulation in the heart, are included in the etiology of cardiac tamponade(2).

Case: A 36-year-old female patient presented to the emergency department with shortness of breath, dry cough, nausea and abdominal distension.Gravida:4, Parity:1, Abortus:3.In vital parameters, fever:36.3oC, blood pressure:122/65mmHg, heart rate:120/min, Sat O2:99%, respiratory rate:28/minute. There was normal sinus rhythm but low amplitude in all leads on ECG.On physical examination, she was conscious, oriented and cooperative. Neurological examination was normal.There were rales in both lung bases, there wasn't heart murmur, but heart sounds were deep. In the patient's anamnesis, it was learned that she had a history of revision curettage due to a 16-week spontaneous abortion 1 week ago.Pericardial effusion causing cardiac tamponade was observed in bedside echocardiography performed by the emergency department doctor.The patient, who was diagnosed with cardiac tamponade, was admitted to the cardiology intensive care unit.Ejection fraction was found to be 15-20% in echocardiography after pericardiocentesis.Due to worsening of her general condition, she was orotracheally intubated ECMO was planned and the patient transferred to cardiovascular surgery.ECMO treatment continues.

Conclusions: Cardiopulmonary diseases are the most common cause of maternal death(3).Pericardial effusion that will cause cardiac tamponade during pregnancy is a rare condition.Cases of HELLP syndrome characterized by preeclampsia and hemolysis, increased liver enzymes and low platelet count or cardiac tamponade secondary to malignancies have been reported in the literature.However,as far as we know, no case of cardiac tamponade developing after 2nd trimester pregnancy loss has been reported in the literature.In the later weeks of gestation,it takes time for the physiological changes of pregnancy to return to normal after abortion or in postpartum period. For this reason,although symptoms such as shortness of breath, peripheral edema and hyperventilation primarily suggest the physiological changes of pregnancy, underlying cardiac causes should definitely be considered in the differential diagnosis.

Keywords: abortion, cardiac tamponad, 2nd trimester, dyspnea

P-055

Vwf DEFICIENCY IN CEREBROVASCULAR EVENT

Semih Korkut[1], Kagan Toksal[1], Beyzanur Maman[1], Kemal Şener[1], Ertuğrul Altuğ[1]

[1]Basaksehir Cam and Sakura City Hospital, Emergency Department

Background and aim: Von Willebrand factor is a large multimeric glycoprotein that plays an essential role for the normal arrest of bleeding. vWF and coagulation factor VIII (FVIII) circulate as a complex in plasma. vWF has a dual role in hemostasis. It promotes platelet adhesion and thrombus formation and it protects FVIII from proteolytic degradation. Severe vWF deficiency creates in addition factor VIII deficiency.-VWF deficiency, either quantitative or qualitative, results in von Willebrand disease (VWD), the most common congenital disorder of primary hemostasis; it is transmitted in an autosomal manner and according to type there is an alteration in structure, function and/or synthesis or release of von Willebrand's factor.

Case: 2 year old boy with history of fall before 3 days ago. After he fall, day by day he started to be unable to walk. He has letf leg weakness.Family history: Both parents alive and wellMedications: No history of drug use or chronic disease.Physical examination: Vital signs natural.Neurological examination: he has left hemiplegia Glaskow coma scale:15 pupils are isochoricThere was no headache, nausea, vomiting or confusion. LAB DATA:CBC: PLT: 425 10^9/L (N:189-403) PCT:0,34% (N:0,17-0,32) RDW-CV:15,8%(N:12,5-14,9) RDW-SD:46f-L(N:35,1-41,7) P-LCR:9,1 (N:17,9-43,7) BİOCHEMİSTRY: fosfor:6,47mg/dL (N:3,1-6,0) globulin:24g/L (N:26-46) PT/aPTT/INR/D-Dimer/fibrinojen: normal Thrombosis panel: protein s:47(%60-120) protein c:75(%70-140) antitrombin3:75(%75-125) F8:16(%55-145) FX:68.4(%45-155)

Conclusions: Vwf deficiency may vary in each person, throughout life depending on type of von Willebrand disease. May only become apparent on hemostatic challenge, and bleeding history may become more apparent with increasing age.-Diagnosis is based on bleeding history, coagulation screening tests and specific factor assays. Genetic diagnosis may help in understanding the phenotype. -In the treatment of vWh, local hemostatics, antifibrinolytics, drugs that increase vWf level, hormonal treatments and replacement therapies are differently available depend on the type of the disease, the location of the bleeding.

Keywords: Von Willebrand factor, Cerebrovascular event

P-075

A CASE OF PULMONER EMBOLISM DIAGNOSED DUE TO LOW WELLS SCORE

Melikcan Kaya[1], Mehmet Oğuzhan Ay[1], Mustafa Tolga Özdal[1], Halil Kaya[1], Umut Ocak[1], Melih Yüksel[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Pulmonary Embolism (PE) is the clinical picture that occurs as a result of partial or complete occlusion of the pulmonary artery or one of its branches by any thrombus. PE is the cause of 10% of hospital deaths. There are genetic and acquired risk factors. In patients who present with symptoms such as dyspnea, chest pain, hemoptysis, palpitations, and syncope, we usually expect tachypnea (>20/min), tachycardia (>100/min), rales, and DVT findings. These patients usually have a high Wells score. The clinical picture of the patient varies according to the number, localization and size of the thrombus. It is important to study BTA and D-Dimer in diagnosis. After the diagnosis of the patient, thrombolytic or anticoagulant treatment should be started without delay, depending on the patient's condition.

Case: A 42-year-old female patient was admitted to the emergency department with widespread chest pain in the right hemithorax that had been causing difficulty in breathing for 3 days. The patient's electrocardiogram was normal. Her saturation was 97% and her pulse rate was 110/minute. He was normotensive. The patient was using oral contraceptives and quit 1 month ago. The patient had additional hypothyroidism. The patient's Wells' Score was 1.5 (low risk). When the patient did not find relief with analgesia and no pathology was detected in X-Ray, Thorax CT Angiography was performed. In the laboratory tests of the patient, D-Dimer was 0.59 (0-0.5mg/ml). When an appearance in favor of pulmonary thromboembolism was detected in Thorax CT Angiography, the patient's treatment was started and she was admitted to the Chest Diseases Service.

Conclusions: PE is a set of symptoms presenting with thrombus in the pulmonary artery or its branches and the size, localization and number of this thrombus. The size, location and number of thrombus are important in estimating mortality and morbidity as well as symptoms. Once the diagnosis of PE has been made, treatment should not be delayed. Although there are different scores for PE prediction, Wells is mostly used in the emergency department. Although patients with PE usually have a high Wells score, PE cases with a low Wells score can rarely be detected.

Keywords: pulmonary Embolism, emergency department, Wells' Score

P-054

IDIOPATIC THROMBOCYTOPENIC PURPURA İS NOT JUST A SIMPLE THROMBOCYTOPENIA! A CASE WITH MORTALITY

Deniz Aydın[1], Burcu Genç Yavuz[1], İbrahim Altundağ[2], Kadir Çiftçi[1], Şahin Çolak[1], Kaan Yusufoğlu[1]

[1]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul
[2]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Immune or idiopathic thrombocytopenic purpura (ITP) is an autoimmune pathology with low platelet count, purpura, and hemorrhagic attacks caused by antiplatelet autoantibodies.While there is an infectious factor that often triggers the process in the pediatric population, ITP is asymptomatic in 30-40% of adults and is detected incidentally by routine laboratory examinations.Thrombocytopenias can lead to seizures, severe neurological anomalies up to cerebral ischemia and coma, acute renal failure, cardiac ischemia and even multiple organ dysfunction.In this article, we aim to emphasize that serious underlying(have high mortality and complication rates) hematological pathologies can be seen in patients who present to the emergency department with underestimated, minor spontaneous bleeding.

Case: A 60-year-old male patient with a known diagnosis of hypertension, diabetes and coronary artery disease was admitted to emergency department with spontaneous intraoral bleeding.Spontaneous bleeding foci have developed in several different areas in the mouth in last 3 days.Bleeding could not be controlled despite compress and drug applications. Vital parameters were stable on arrival.Three bleeding foci were detected in mouth. In addition, widespread petechia-purpura rashes were observed on the trunk and extremities throughout the body. Platelet:1.000/uL was detected in laboratory tests.Other laboratory tests and coagulation parameters were normal.Peripheral blood smear was requested and idiopathic thrombocytopenic purpura was detected.Intravenous immunoglobulin (IVIG) treatment was started in the follow-up.One month later, he was admitted to the neurology intensive care unit due to acute ischemic stroke.During intensive care unit hospitalization, sepsis was developed due to concomitant pneumonia then disseminated intravascular coagulopathy(DIC) and as a result exitus due to multiple organ disfunction syndrome(MODS) developed on the 7th day of his hospitalization.

Conclusions: The diagnosis of ITP is typically made by exclusion of known causes of thrombocytopenia by history, physical examination and peripheral blood smear.The factors that determine the severity of ITP are the location and severity of the bleeding.ITP should not be thought of as a simple hematological pathology such as low platelet count alone, and it should not be forgotten that it is a pathology with high mortality due to itself and complications caused by accompanying pathologies during the treatment process(the need for anti-coagulant or anti-aggregant use).

Keywords: idiopatic, itp, bleeding, disseminated intravascular coagulopathy(DIC), multiple organ disfunction syndrome(MODS)

P-120

THE CASE OF THE CLOCK BOMB

M.Kübra Melemez[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Nurhayat Başkaya[1], Nahide Gizem Okay[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Vital findings and physical examination are very important in prediction of the clinical progress of the patient coming to the emergency department. Pulmonary embolism , hypovolemia, cardiac tamponade, anaphylaxis, ischemic heart disease, sepsis , ruptured abdominal aortic aneurysm is the most important - common cause of the hypotension.

Case: A 79 year-old man presented to complaining of abdomi□nal pain and bulging on the abdomen to the emergency medicine. He had hypertension , cronic renal di□sease. He was laterjic glascow coma scale: 14 (m:6, v:5 e:4). Neurolojical exami□nation was normal and there was no abnormal sign. In the abdomi□nal examination at the lower quadrant of left abdomen , was detected a palpalb mass but no murmur. Inotrop support and liquid replacement therapy started to the patient with hypotensive vital findings on arrival. Rush (rapid ultrasound for shock and hypotension) protocol was applied to the patient with a hypotensive progress which was followed with the prediagnose of abdominal aortic aneurysm rupture. Fusiform aortic aneurysm was detected in the rush protocol performed in the emergency resuscitation area. Thoracobominal angiography was done. He was consulted to cardiovascular surgery. Cardiopulmonary resucitation - cpr protocol was applied to the patient who developed cardiac arrest during the follow-up according to the ERC (europian resuscitation council) 2021 guide. By cardiac ultrasound performed, patient had been no heartbeat. The patent died.

Conclusions: Ruptured abdominal aortic aneurysm (AAA) is a common cause of death which is preventable by elective repair of an asymptomatic AAA. The prevalence of AAA ranges between 3 and 8 percent. The most important risk factors for AAA are male sex, age, family history and smoking. Hypertension is associated with a mildly increased risk. Primary prevention of AAA is not a literally option. In the emergency department, hypotension and shock i□s the most i□mportant predicting vital sign. We must keep our prediagnosis broad for patients coming with abdominal palpalb or nonpalpalb mass, hypotension and shock. We should increase the use of ultrasound in emergency servic.

Keywords: rush protocol, abdonimal aort aneurysm., abdominal mass, hypotensıon

P-096

WERNICKE ENCEPHOPATHY

Derya Küçükaslan[1], Mehmet Oğuzhan Ay[1], Enad Kenan[1], Murat Ersal[2], Halil Kaya[1], Melih Yüksel[1], Umut Ocak[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye
[2]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Anesthesiology and Reanimation, Bursa, Türkiye

Background and aim: Wernicke's Encephalopathy is an acute neuropsychiatric condition that develops as a result of thiamine deficiency, usually diagnosed clinically, and has a mortality rate of 10%-20%. The classical triad is; ataxia, ophthalmoplegia and encephalopathy. Although it is usually associated with chronic alcohol use, conditions that cause thiamine deficiency such as malnutrition, gastric surgery, parenteral nutrition may also prepare the ground. Ataxia usually affects the lower extremities. It can cause severe ataxias in addition to mild pain in the feet associated with cerebellar vermis and vestibular dysfunctionIn this report, a case of Wernicke's Encephalopathy due to chronic alcohol use is presented.

Case: A 68-year-old male patient was brought to our emergency department due to oral intake disorder for the last 10 days, speech disorder for the last 3-4 days, and visual hallucinations. He had known HT, DM and Gout diseases. Physical examination revealed that the patient could not stand and had ataxia. For many years, it has been said that there is a chronic alcohol intake of up to 1 liter per day. The patient's GCS: 12, BP: 215/127 mmHg, blood sugar: 108 SPO2: 98%, fever: 36.9 degrees. No pathology was detected in laboratory examinations. Diffusion MRI was normal. Brain CT revealed atrophy in the cerebellar sulci, supratentorial ventricles and cerebellar sulci. Lumbar puncture was normal. Considering Wernicke's Encephalopathy as a preliminary diagnosis in our patient, IV thiamine infusion was started and he was admitted to the intensive care unit for neurology.

Conclusions: In a patient with chronic alcohol use; If there is acute ataxia with confusion, abnormal eye movements, Wernicke's Encephalopathy should be considered and iv thiamine infusion should be started quickly. If it is delayed, Korsakoff Syndrome with a mortal course may develop. Diagnosis is made by anamnesis, physical examination, and MR and CT findings in patients with cerebellar degeneration. Clinically, on cranial MR, T2 and Flair imaging, an increase in signal is observed in the bilateral medial thalamus, around the third ventricle, and in the preductal gray matter. It should not be forgotten that atypical findings may also occur.

Keywords: Wernicke Encephalopathy, chronic alcohol use, thiamine

P-013

Stump appandisit

Doç. Dr. Avni Uygar Seyhan[1], Öğretim Üyesi Dr. Erdal Yılmaz[1], Doç. Dr. Rohat Ak[1], Uz. Dr. Özge Kibici[1], As. Dr. Rümeysa İnci[1], As. Dr. Senem Ayvacı[1], As. Dr. Ragıp Çetinkaya[1], As. Dr. Muhammet Yavuz Şeker[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Acute appendicitis is the most common abdominal surgical emergency.Lifetime risk for developing acute appendicitis is approximated at 7%.Stump appendicitis is a form of recurrent appendicitis that is related to incomplete appendectomy.The inflammation of an excessively long stump is a rare complication after appendectomy.We report a case of stump appendicitis following laparoscopic appendectomy for acute appendicitis four mounths earlier.

Case: An 48 year old male with a six-hours history of right iliac fossa pain and diarrhea that started 2 days ago was admitted to emergency department.The fever,nausea,vomiting were absent.On admission,the vital signs were normal.His clinical examination revealed signs of localized tenderness an guarding in the right iliac fossa. Also, there was no costovertebral angle tenderness.His white blood cell count was 14.5 10⁹/L , as neutrophilic leukocytosis.The abdomen x-ray was normal.The abdominal CT scan showed that dilated appendix with a diameter of 11 mm and periappendiceal inflammation.His physical examination, neutrophilic leukocytosis and abdominal ct confirmed "stump appendicitis". A residual appendiceal stump was found and dissected from the adhesion and removed with laparoscopic exploration.

Conclusions: Acute appendicitis is one of the most common cause of abdominal surgery but the 'stump appendicitis' is a rarely occurring situation related with the residual appendicit after surgery.The most important reason for the increase in the incidence of stump appendicitis today is the increase in laparoscopic surgery.It causes the inability to perform the dissection adequately and leaving the appendix stump longer than 5mm. When the stump is longer than 5 mm acts as a reservoir for fecalitis, causing obstruction and paving the way for the emergence of complications.Prompt recognition is important in order to lead to early treatment, thus avoiding serious complications like wound infection, intraabdominal abscess formation, intestinal perforation with peritonitis, bleeding and adhesions with subacute intestinal obstructions.The primary takeaway lesson from this case report is that the treating physician should have a high index of suspicion for this rare entity while dealing with a patient having acute abdominal pain and a past surgical history of appendectomy.

Keywords: Stump, apandisit, surgery, complication, laparospopically

P-051

IMPORTANT DIAGNOSIS TO MADE IN EMERGENCY DEPARTMENT: ORBİTAL CELLULITIS, CASE REPORT

Canberk İnan[1], İbrahim Dilekcan[1], Gülhan Kurtoğlu Çelik[1]

[1]Ankara Şehir Hastanesi, Acil Tıp Kliniği

Background and aim: Orbital cellulitis is an infection of the orbital soft tissues behind the orbital septum and can be life-threatening. Orbital cellulitis most commonly occurs with spread from the paranasal sinuses. Intravenous antibiotic treatment is required by hospitalization. It can cause complications such as cavernous sinus syndrome, osteomyelitis, subdural empyema, epidural abscess and brain abscess. In this article, we aimed to present a complicated orbital cellulitis case who admitted to the emergency department.

Case: A 29-year-old male patient admitted to us with swelling and pain in his left eye. The patient has no known disease history. On examination, fluctuant abscess was observed in the left eye. In the blood tests of the patient, WBC was 15.26 x10^9/L, CRP was 0.11 g/L, procalcitonin was 19.81 µg/L. Contrast-enhanced brain tomography of the patient showed area in favor of abscess in the left frontal lobe. A 10 mm shift was observed from the midline. There was a collection area reaching 25 mm in thickness at its thickest part, extending from the preseptal area to the left orbital level. There was an appearance compatible with fungal sinusitis in both maxillary sinuses and ethmoid sinuses. Findings were evaluated in favor of invasive fungal sinusitis. Intravenous antibiotic treatments were started, teicoplanin 1x400 mg and cefepime 3x2 gr. Surgical intervention was planned for the patient. The patient was hospitalized to multidisciplinary ICU.

Conclusions: Orbital infections often spread as a result of infection of adjacent tissues. Orbital cellulitis usually presents with complaints of facial swelling, fever, pain with eye movements, limitation of eye movements, proptosis, decreased vision. Contrast-enhanced CT is useful both in confirming the diagnosis and in evaluating possible complications. If the diagnosis of orbital cellulitis is confirmed in the emergency department, the patient should be immediately consulted to the ophthalmology department. Antibiotics used in the treatment should cover both aerobic and anaerobic infections. It should be noted that emergency surgical drainage may be required.

Notes (Optional): As a result, it is important to evaluate the patient in terms of orbital infections in cases who apply to the emergency room with eye swelling and redness. Life-threatening conditions may develop with delayed treatment.

Keywords: orbital cellulitis, eye emergencies, brain abscess, ophtalmology

P-017

Idiopathic Thrombocytopenic Purpura : A case report

Raziye Rabia Özdemir[1], Elif Günhan[1], Ceren Çolak[1], Gözde Yılmaz Makinecioğlu[1], Özgür Tan Aladağ[1], Suna Eraybar[1], Mehtap Bulut[1]

[1]Bursa Şehir Hastanesi

Background and aim: Immune (Idiopathic) Thrombocytopenic Purpura (ITP) is an acquired immune-mediated disease in which circulating platelets typically drop to very low levels. The clinical picture is usually characterized by petechiae and ecchymoses, in addition to hematuria, intracerebral hemorrhage, menorrhagia and epistaxis.

Case: A 67-year-old woman was admitted to the emergency department (ED) of Bursa City Hospital SUAM with the complaint of widespread rash on her body. Known comorbidity hypertension and frequent use of NSAIDs due to recent leg pain no other active complaints.On the patient's arrival, consciousness was clear, GCS 15, no abdominal pain, no active bleeding, rectal examination was normal, temperature: 36.6°C pulse: 96 beats/min SpO2: %98 blood pressure: 110/70mmHg. Wbc from laboratory values: 8,7 x 103/mm3 Hgb: 9,8 g/dL PLT: 1 x 103/mm3 other values were within physiologic limits. No significant pathology was found on abdominal USG.1mg/kg prednol iv was administered in the ED .The patient received 2 units of TS and 1 unit of TDP. Control platelet count was 13000 .Intensive care unit was hospitalized with the diagnosis of drug induced ITP. On the 5th day of follow-up, PLT: 124 thousand was observed and he was discharged with oral prednol 64mg.

Conclusions: ITP is a disease that should be considered in a patient presenting to the ED with a rash. The diagnosis is made by the absence of other complaints and symptoms and the exclusion of other bleeding disorders. A careful anamnesis should be taken, medications and herbal supplements used by the patient should be questioned. Platelet transfusion and corticosteroids are used in the first stage of treatment. IVIG and splenectomy may be considered in refractory cases.

Keywords: itp, purpura, ekimoz, low platelet, hemoraji

P-038

Acute Fatty Liver of Pregnancy

Ragıp Çetinkaya[1], Avni Uygar Seyhan[1], Erdal Yılmaz[1], Rohat Ak[1], Ecem Deniz Taşçı[1], Faruk Şimşek[1], Asya Yağmur Karaküçük[1]

[1]Kartal Dr. Lütfi Kırdar Şehir Hastanesi

Background and aim: Acute fatty liver of pregnancy (AFLP) is a rare, but serious, condition of pregnancy in which there is an excessive accumulation of fat in the liver or liver cells. Fat normally accumulates in the liver in the form of triglycerides and fatty acids, but excessive fat can cause liver damage. The exact cause of AFLP is unknown. Recent researches indicate that AFLP may be the result of a mitochondrial dysfunction in the oxidation of fatty acids in the liver--in particular, a deficiency of long-chain 3-hydroxyacyl-CoA dehydrogenase. In this case report, we aimed to present AFLP.

Case: A 26-year-old, 13-week-pregnant female patient was admitted to the emergency department with a complaint of nausea and vomiting. In her anamnesis, vomitting started 1 week ago, no prior cause has determined. The patient's medical history was unremarkable. Vital signs of admission were as: BP: 120/80 mmHg, HR: 120 bpm. Fever: 37,2 C and sO2: 97. Physical examination revealed tenderness with palpation in right upper quadrant of the abdomen. There was no defence or rebound. Other system findings were normal. Leukocytes 20.970/mm3 (4000-12000/mm3), hemoglobin 11.9 g/dl (11.1-14.7 g/dl), AST 489 U/L (0-32 U/L), ALT 1497 U/L (0-33 U/L), LDH 402 U/L (135-214 U/L), Total Bilirubin 3,17 mg/dl(0-1,2 g/dl), Direct Bilirubin 2,83 mg/dl(0-0,3 g/dl), CRP 7,4 mg/l (0-5 g/L), INR 1,85 (0,8-1,2). Bilirubin 2 positives, ketone 2 positives, protein 1 positive in urine test. Other parameters, including ELISA test and arterial blood gas test, were within normal limits. No pathology were determined in the patient's ultrasound. The patient consulted to Obstetrics & Gynecology and hospitalized by O&G.

Conclusions: AFLP is a catastrophic illness constituting an obstetric emergency. The diagnosis of AFLP can be challenging because shares features with other common disorders such as pre-eclampsia, viral hepatitis, HELLP or cholestasis of pregnancy. Risk factors of AFLP besides LCHAD are primigravidas, pre-eclampsia, male fetus and multiple gestation. Patients most often present to emergency department with jaundice, abdominal pain, nausea and vomiting. Careful history and physical examination, laboratory results and imaging results are often sufficient to make the diagnosis.

Keywords: Fatty, Liver, Pregnancy, Diagnosis

P-121

D-Dimer Negative Pulmonary Thromboembolism

Hasan Mansur DURGUN[1], Ferhat ÖZKOÇ[1], Serkan YILMAZ[1], Recep DURSUN[1], Abdullah ŞEN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: D-dimer is a fibrin degradation product released as a result of the endogenous fibrinolytic system breaking down newly formed thrombus. It is a frequently used test, especially in emergency services, to exclude patients with suspected low-risk pulmonary thromboembolism in Wells scoring. In this study, we examined a rare case.

Case: A 36-year-old female patient presented to the emergency department with complaints of dyspnea and chest pain that started 10 days ago and gradually increased. He was operated in 2019 due to a brain tumor. In the vitals of the patient, blood pressure was 140/100 mmHg, body temperature was 37.1 °C, pulse was 96/min, oxygen saturation was 85% in room air, and respiratory rate was 22/min. The general condition of the patient was moderate, conscious, oriented-cooperative, GCS was 15. On physical examination, lung sounds were normal bilaterally on auscultation; abdomen was comfortable, there was no defender-rebound; neurological examination was normal. In the blood tests, white blood cell count was 12 thousand, hs-troponin 156 ng/L, D-Dimer 0.57 mg/L, NTproBNP 3380 pg/ml. Echocardiography of the patient revealed an EF: 60% and enlargement of the right heart chambers. Thereupon, CT pulmonary angiography of the patient revealed massive filling defects consistent with pulmonary thromboembolism in the segmental and subsegmental branches of the upper and lower lobes of both lungs. The patient was admitted to the intensive care unit after consultation with chest diseases.

Conclusions: The D-dimer test is valuable as a diagnostic test in pulmonary thromboembolism. Although it has been proven by studies that the negative predictive value is especially high, it was found to be negative in the massive pulmonary thromboembolism mentioned in our case. Pulmonary thromboembolism is a mortal emergency. In patients with symptoms in emergency services, diagnostic imaging should be performed with clinical suspicion, diagnosis should be made quickly and treatment should be started.

Keywords: D-Dimer, Pulmonary Thromboembolism, Pulmonary Angiography

P-062

A Dıagnosis to Remember In Emergency: Arterial Thrombosis

Mehmet ÜSTÜNDAĞ[1], Abdulbasit ALCAN[1], Taner EKİNCİ[1], Hasan Mansur DURGUN[1], Mahmut YAMAN[1], Cahfer GÜLOĞLU[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: The most common cause of acute arterial thrombosis is arteriosclerosis. The differential diagnosis of acute arterial ischemia includes acute arterial embolism, acute arterial thrombosis, acute arterial dissection, acute venous thrombosis, and arterial spasm. Clinically, 5 P findings (pain, pulselessness paresthesia, paralysis, pallor) are seen. In order of frequency, comorbid conditions are smoking, hypertension, coronary artery disease, diabetes, hypercholesterolemia, cerebrovascular diseases and malignancies.

Case: A 66-year-old male patient presented to the emergency department with pain and discoloration in the right leg. He has a history of paraplegic, hypertension, atrial fibrillation after a previous ischemic cerebrovascular event. He does not take his anticoagulant and antihypertensive drugs regularly. Developing blood pressure 160/100 mmHg, SpO2: 90, pulse: 95, ECG: AF, fever: 37.4 . The right lower extremity is painful to touch, and the color change has become more evident in the last 24 hours. Right popliteal artery, dorsalis pedis, and tibialis posterior pulses are very weak and light touch sensation is decreased. The right leg and foot feel colder and pale than the left. Acute arterial thrombosis was considered in the patient, and after lower extremity CT angiography, distal blood flow from the level of the right external iliac artery could not be coded, and arterial thrombosis was detected and extensive atherosclerotic plaques were found. The patient was started on LMWH treatment. He was taken to embolectomy by cardiovascular surgery. The patient was discharged with anticoagulant treatment on the 6th post-op day.

Conclusions: Our patient had a previous ischemic event, hypertension and atrial fibrillation. We wanted to emphasize the importance of physical examination findings and anamnesis in early diagnosis.

Keywords: Thrombosis, Embolism, Arterial Thrombosis, Emergency Department, Leg Pain

P-070

Mad Honey poisoning

Havva Şahin Kavaklı[1], Fatih Ahmet Kahraman[1], Fatih Tanrıverdi[1], Elif Tuğçe Şahin[1], Ruveyda Kabakcı[1], Emre Fazıl Aslan[1]

[1]Ankara Şehir Hastanesi

Background and aim: Mad honey poisining is quite common on the BlackSea coat. Poisoning is caused by grayanotoxin in honey made from the extract of Rhododendron plant species. It shows its cardiotoxic effect by increasing the permeability of sodium channels in the cell membrane and stimulating the vagus nerve. It inhibits repolarization by increasing sodium permeability in the cell membrane. The cell membrane depolarization time is prolonged. Continuous depolarization reduces the action potential and leads to sinus node dysfunction. Symptoms related to mad honey poisoning begin within 2-3 hours after eating about 15 grams (1 spoon) of honey. However, no correlation was found between the amount of honey consumption and the onset of symptoms . The most common findings belong to the cardiovascular system, and sinus bradycardia and hypotension are the most common. In addition to these, nonspecific bradyarrhythmia, nodal rhythm, complete atrioventricular block and 2nd degree AV blocks can be seen.

Case: 65-year-old male patient, without any known comorbidity and drug use, was admitted to the emergency department with the complaint of typical chest pain of a compressive nature. In his physical examination, respiratory sounds were normal, the abdomen was comfortable, and there were no pathological findings. TA: 150/90 mm/Hg, pulse 50/min, fever 36.6 C, respiration 16/min. The ECG was sinus bradycardia. When we deepened the anamnesis because he was bradycardic, it was learned that he had been eating 1 teaspoon a day of honey brought from the BlackSea region for the last 4 days. Since symptomatic bradycardia was not considered, he was followed up in the emergency department with supportive treatment and monitoring. As the troponin values were 93-155-168 ng/L (reference range <45 ng/L) in the examinations performed, we were consulted with cardiology, considering the pre-diagnosis of NSTEMI. He was admitted to the coronary intensive care unit by cardiology.

Conclusions: According to the new literature information, hypotension and bradycardia caused by the consumption of mad honey can cause coronary flow to slow down. associated myocardial infarction. İn our case, it should be kept in mind that the history of eating honey should be questioned in patients with bradycardia in their ECG.

Keywords: Mad, Honey, poisoning

P-080

A RARE CONDITION: PNEUMOMEDIASTINUM

Abdurrahman Sadullah Akyıldız[1], Melih Yüksel[1], Mehmet Oğuzhan Ay[1], Umut Ocak[1], Halil Kaya[1], Enad Kenan[1]

[1]University of Health Sciences, Bursa Yüksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: Pneumomediastinum (PM) is characterized by free air images in the mediastinum and can be divided into three as spontaneous, iatrogenic and traumatic, as well as in two classes as spontaneous and secondary. Although spontaneous PM is rare, it usually occurs in healthy young men with increased intraalveolar pressure (such as vomiting, forced cough, Valsalva maneuver). Cases rarely cause symptoms and usually regress spontaneously without the need for treatment.

Case: A 15-year-old boy was brought to the emergency department by the 112 ambulance after a bicycle accident. While riding a bicycle, the patient lost control and fell, hitting the front wall of the chest against the handlebar of the bicycle and then fell to the ground. The general condition of the patient was good, he was oriented and cooperative, and he described mild pain in the throat and chest. The patient's neurological examination was normal. Breath sounds were equal and natural in both lungs. There was dermabrasion in both upper extremities, forearm and left knee. Crepitation was detected on the right side of the neck and right hemithorax with palpation. Laboratory examinations of the patient were within normal limits. Computed Tomography (CT) was planned for the patient in terms of neck and thorax imaging. On imaging, emphysematous foci and minimal pneumothorax were detected in the parapharyngeal and retropharyngeal areas. The patient was consulted to the relevant departments. He was admitted to the otolaryngology service for follow-up.

Conclusions: If the air diffuses under the skin, subcutaneous emphysema may occur in the neck and thorax. Radiologically, the diagnosis is made by the presence of an air column between the heart and the mediastinal pleura in the PA chest X-ray and lateral chest X-ray. Although CT is not routinely recommended, it is the most sensitive method for diagnosis. Monitored follow-up of the patient is usually sufficient in treatment, and pneumomediastinum usually regresses spontaneously after follow-up. In cases with respiratory distress, 100% oxygen therapy, and in cases accompanied by pneumothorax, a chest tube can be applied if necessary. In cases with advanced subcutaneous emphysema, air decompression can be achieved with a catheter placed under the skin.

Keywords: pneumomediastinum, emergency department, trauma

P-022

HEIMLICH MANEUVER

Hakan Ay[1], Enad Kenan[1], Melih Yüksel[1], Mehmet Oğuzhan Ay[1], Halil Kaya[1], Umut Ocak[1]

[1]University of Health Sciences, Bursa Yuksek Ihtisas Training and Research Hospital, Department of Emergency Medicine, Bursa, Türkiye

Background and aim: First aid, classically, is the non-medicated applications performed at the scene, without seeking medical equipment, in order to save life or prevent the situation from getting worse, until medical assistance is provided by the health officials in an accident or life-threatening situation. Heimlich maneuver (HM) is also one of the first aid applications. The HM described by Henry J. Heimlich in 1974, has become a well-defined emergency procedure in the initial management of airway obstruction due to foreign bodies.

Case: A 75-year-old female patient with known cerebrovascular disease sequelae and an immobile patient was brought to the emergency department by her relatives with the complaint of sudden respiratory distress and bruising while she was being fed. The patient was dyspneic, tachypneic, fingertip saturation was 84%, blood pressure was 130/80 mm/Hg, heart rate was 95/min, and fever was 37.5. There were widespread coarse crackles in breathing sounds and tenderness in the lower ribs of the thorax by listening. There was no gag reflex. In the anamnesis taken from her relatives, it was said that the same incident occurred 2 days ago, and she passed with her own interventions. They explained that they first applied the HM to the patient, and then performed cardiac compression. The patient had aspiration pneumonia and rib fractures on imaging. The patient was consulted to chest diseases and hospitalized.

Conclusions: Today, the HM is recommended in cases of foreign body aspiration in both adult and pediatric basic life support guidelines. There are case reports in the literature about the complications that occur as a result of incorrect application of this application. In these case reports, injuries to the stomach, esophagus, liver, and aorta were mentioned after the maneuver. In our case, multiple rib fractures occurred as a result of cardiac compression performed instead of the HM. In particular, it is necessary to raise awareness of the society in order to prevent such wrong first aid practices. For this, the importance of first aid should be emphasized and necessary training should be given to the citizens, especially the relevant Ministries, local governments, non-governmental organizations, the written and visual media.

Keywords: heimlich maneuver, emergency department, rib fracture

P-044

A RARE CAUSE OF ABDOMİNAL PAIN: HEPATİC SEQUESTRATION CRISIS, A CASE REPORT

İbrahim Altundağ[1], Alperen Şahin[2], Deniz Aydın[2], Burak Özçelik[2], Tarık Karakaş[2], Burcu Genç Yavuz[2], Şahin Çolak[2]

[1]Başakşehir Çam ve Sakura City Hospital, Department Of Emergency Medicine, İstanbul
[2]University of Health Science, Haydarpaşa Numune Training And Research Hospital, Department Of Emergency Medicine, İstanbul

Background and aim: Sickle cell anemia (SCA) is an autosomal dominant (OD) inherited hemoglobin disease characterized by abnormal hemoglobin formation that can cause recurrent painful crises. In addition to symptoms such as dyspnea, weakness, dizziness and palpitation due to anemia, symptoms that can mimic gastrointestinal or extremity pathologies such as abdominal and extremity pain can be observed in SCA-related crisis.In this article, we aimed to present a patient diagnosed with sickle cell anemia, who was admitted to the emergency department with severe abdominal pain and diagnosed as hepatic crisis.

Case: A 23-year-old female patient with a diagnosis of SCA applied to the emergency department with abdominal pain. She has had severe upper abdominal pain since yesterday. Vital parameters were fever:36.2oC, blood pressure:124/78mmHg, pulse:101/min, saturation:98%.ECG was sinus tachycardia 125/min.There was tenderness in the right and left upper quadrants of the abdomen, but there was no defense or rebound. In laboratory tests WBC:18.240 /uL, Hb:11.8g/L, total bilirubin:3.17mg/dL, direct bilirubin:2.12mg/dl, AST:405U/L ALT:677U/L, ALP:109U/L, GGT:38U/L, INR:1.42 were detected.The other laboratory parameters were normal.In abdominal USG, the gallbladder was seen to contract.Contrast-enhanced abdominal CT showed millimetric calcification in the spleen parenchyma.Portal Doppler USG was normal.The patient, whose causes of acute abdomen were excluded, was admitted to the internal medicine service with the preliminary diagnosis of acute hepatic crisis for further examination and treatment.

Conclusions: Sickle cell anemia (SCA) is one of the most common types of hemoglobinopathy in the world, although its incidence is low among all diseases.SCA is a serious multisystem pathology that can cause complications in the whole body, especially in tissues such as bone, liver, lung, heart and kidney, due to vascular occlusions that is most important complication.One of the most important complications is hepatic crisis.In the presence of abnormal laboratory parameters such as ALT, AST and bilirubin elevation, it should be kept in mind that hepatic crisis due to SCA may be seen in patients with SCA, in addition to common hepatobiliary pathologies such as hepatitis, cholestasis, cholecystitis, and pancreatitis.Absence of pathology by USG or abdominal CT is not sufficient to exclude the diagnosis of acute hepatic crisis.

Keywords: sickle cell anemia, hepatic crisis, sequestration crisis, SCA

P-127

HOW INNOCENCE ARE SINK OPENERS?

Mustafa Yasin Ökten[1], Sevilay Bıyıklı[1], Mürşide Yaylı[1], Gökhan Cabar[1], Mustafa Çalık[1]

[1]Gaziosmanpaşa EAH Acil Tıp Kliniği

Arka plan ve amaç: Substances that cause caustic damage are divided into two groups as acid and alkali. According to studies conducted in many countries, exposure to alkaline substances is more common in caustic damage. The most common exposure is sodium hypochlorite, which is found in bleaches, bleach and household cleaning products. Damage with these substances is usually limited to the esophageal mucosa. The severity and extent of the damage; It can vary depending on the nature, amount, contact time with the mucosa, density and physical form of the corrosive substance taken.

Vaka: 32-year-old female patient, the day before, she applied to our Emergency Clinic with the complaint of a few granules coming into her mouth while trying to open the sink opener package with her mouth. The patient describes that she did not swallow the granules that came into her mouth and Retrosternal pain is present. General condition is good, awake, alert, oriented. There is no nausea and vomiting, there is spontaneous gaseous stool discharge. There is no tenderness, defense or rebound in the abdominal examination. No subperitoneal free air in ADBG and PAAC radiographs. CRP is normal, leukocytosis is absent. The patient who is not considered for general surgery in its current state, elective endoscopy" Linear diffuse membranes were seen starting from the posterior of the tongue and intensifying after the 25th cm from the incisors. stretched all the way to the Z line, No pathological finding were detected in stomach and duodenum. " It was interpreted as. The patient was admitted to the general surgery service for follow-up and treatment.

Kararlar: Contact with caustic substances may present with different clinical findings. We should not forget that alkaline cleaning agents, especially used at home, cause more damage. Even if PAAC and ADBG are normal, the patient should be evaluated by endoscopic imaging to see mucosal damage. We should plan the patient's management accordingly. Management of these cases is important because of widespread systemic involvement. Intake of caustic substances can be life-threatening, as well as serious costs in diagnosis and treatment.

Anahtar Kelimeler: alkaline substance, caustic, drain opener, mucosal damage, esophageal injury

P-061

Aort Aneurysm Rupture

Cahfer GÜLOĞLU[1], Ali Fırat ÜLGÜT[1], Murat ORAK[1], Mahmut YAMAN[1], Taner EKİNCİ[1], Abdullah ŞEN[1]

[1]Dicle Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı

Background and aim: Abdominal aortic aneurysm is an irreversible and progressive disease. When it does not rupture it is known as silent disease. It must be ruptured to become symptomatic. It may be difficult to diagnose aneurysm patients in emergency services and the diagnosis may be delayed. The diagnosis should be made without delay, especially because it causes sudden death. This can be achieved if experienced emergency medicine physicians primarily consider this disease in the differential and preliminary diagnosis.

Case: A 90-year-old female patient brought to the emergency department with severe abdominal pain.There are known diagnoses of DM, HT.When brought, the general condition is poor, conscious, cooperative, oriented.Right arm blood pressure: 145/80 , Left arm blood pressure 165/95. SpO2: 88 (in room air), Pulse: 88 . There was no history of diarrhea, constipation, stool discoloration or bloody vomiting. On physical examination, lung sounds are normal (no additional sound, no murmur), diffuse abdominal tenderness, voluntary defense, rebound negative, rectal touch colic stool.Other system examinations were normal. In laboratory parameters: WBC: 18.000, Hb: 9, Hct: 28, Ph:7.18, PCO2:30, K:5, lactate:10, HCO3:11, Cardiac enzymes are normal. glucose:250, urea:90, creatinine:2.2. Since the patient had a history of hypertension, double-arm blood pressure difference, lactic acidosis, and advanced age, differential diagnoses such as mesenteric artery thrombosis, aortic dissection, and pulmonary embolism were considered and imaging was planned accordingly. Aortic CT angiography showed fusiform aneurysmatic enlargement in the abdominal aorta at the infrarenal level, with an outer diameter of 98 mm and a lumen diameter of 40 mm. Around the aneurysm, a hematoma reaching 2 cm in thickness is observed in the thickest part of the retroperitoneum. Fluid and blood resuscitation was initiated to the patient. Emergency surgical intervention was recommended to the patient and his relatives.Cardiovascular Surgery and Emergency team provided detailed information about the surgical intervention to the patients and their relatives.The risks of the operation were explained. The patient was referred to the cardiovascular surgery service. The patient died before he could be operated on.

Conclusions: Aortic aneurysm rupture should be kept in mind in patients presenting to the emergency department with severe abdominal pain.

Keywords: Aortic Aneurysm, Aneurysm Rupture, Abdominal Pain, Abdominal Pain, Hypotension

Prognostic Value of Lactatin in Patients With Sepsis

Müslüm Mönür

Sepsis is a pathology with high mortality.

Objective: In our study, we aimed to evaluate the effect of lactate level on patient prognosis in emergency service admissions of patients with sepsis.

Material and method: Our study was planned retrospectively in a 3rd step hospital. Our study was carried out with patients who were taken to the intensive care unit with the diagnosis of sepsis from the emergency department between 01.03.2022 and 31.08.2022. The relationship between the patients' lactate levels and vital parameters, Glasgow coma scale (GCS), consciousness status, focus of infection, sepsis severity and mortality were evaluated.

Data were analyzed in SPSS22. The Kolmogrov Smirnov test was used to analyze the data and examine the distribution width. Mann Whitney U and Kruskal Wallis tests were used to compare quantitative data with categorical variables, and pearson correlation analysis was used to compare quantitative data with each other. P<0.05 was considered significant.,

Result: In our study, the median age of the patients was 63 (IQR: 21) years, and 58 (64.9%) of the patients were male. The median of lactate value was found to be 2.4 (IQR: 1.9) mg/dl. There is a positive correlation between lactate level and body temperature, pulse rate; A negative correlation was found between mean arterial pressure (p<0.05). No correlation was found between respiratory rate and GCS with lactate level (p>0.05). It was determined that the lactate level of the subjects with altered consciousness was significantly higher (p<0.05). No significant relationship was found between the focus of infection and lactate level (p>0.05). It was determined that lactate level increased significantly as the severity of sepsis increased (p<0.05). The lactate level of the patients who died was found to be significantly higher (p<0.05).

Conclusion: Lactate level is a parameter with high predictive value for bad prognosis and mortality in patients with sepsis.

Keywords: sepsis, lactate, mortality

Introductıon

Sepsis is defined as life-threatening organ dysfunction caused by an impaired host response to infection. sepsis; This is the patient group with a Sepsis-Related [Sequential] Organ Failure Assessment (SOFA) score of 2 and above in patients with infection. Septic shock is defined as the condition in which the mean arterial blood pressure does not rise above 65 mmHg and the serum lactate level is more than 2 mmol/L despite adequate fluid resuscitation in patients diagnosed with sepsis (1).

Sepsis is a disease that can be fatal in patients admitted to the emergency department (ED) (1). Since the first hours are very important in the treatment of sepsis, the diagnosis should be made and treatment should be started as soon as possible. In the United States (USA), 700,000 patients annually are diagnosed with sepsis or septic shock in Emergency Departments. These patients stay in the ED for an average of 5 hours (2). The diagnosis of sepsis cases as soon as possible in AS management includes hemodynamic resuscitation, source identification and appropriate antibiotic administration (3).

Lactic acidosis is the cause of metabolic acidosis with increased anion gap; lactate accumulation occurs due to increased production or decreased excretion metabolism. Sepsis and septic shock are also among the causes of lactic acidosis (4).

In our study, we aimed to evaluate the effect of lactate level on patient prognosis in emergency service admissions of patients with sepsis.

Material and Method:

Our study was planned retrospectively in a 3rd step hospital. Our study was carried out with patients who were taken to the intensive care unit with the diagnosis of sepsis from the emergency department between 01.03.2022 and 31.08.2022. 90 patients admitted to our emergency department and diagnosed with sepsis were evaluated retrospectively

The relationship between the patients' lactate levels and vital parameters, Glasgow coma scale (GCS), consciousness status, focus of infection, sepsis severity and mortality were evaluated.

In our study, under 18 years of age, pathology leading to elevated lactate (patients with liver and kidney failure, hyperventilation, glycogen storage diseases, severe acute congestive heart failure, subacute bacterial endocarditis, severe anemia, conditions that reduce oxygen uptake of tissues, acute hemorrhage, glucagon, muscle exercise) Patients with circulatory collapse, cyanotic heart diseases, conditions causing acute hypoxia, uremia, cirrhosis, last trimester of pregnancy, severe vascular diseases, insulin infusion, leukemias, chronic alcoholism, Reye's syndrome, poliomyelitis and diabetic patients with complications) were excluded from the study.

Data were analyzed in (SPSS verison 22). The Kolmogrov Smirnov test was used to analyze the data and examine the distribution width. Mann Whitney U and Kruskal Wallis tests were used to compare quantitative data with categorical variables, and pearson correlation analysis was used to compare quantitative data with each other. P<0.05 was considered significant.

Result

In our study, the median age of the patients was 63 (IQR: 21) years, and 58 (64.9%) of the patients were male. The median of lactate value was found to be 2.4 (IQR: 1.9) mg/dl. There is a positive correlation between lactate level and body temperature, pulse rate; A negative correlation was found between mean arterial pressure (p<0.05). No correlation was found between respiratory rate and GCS with lactate level (p>0.05) (Table 1).

Table 1. The relationship of lactate level with vital parameters and GCS

	r	p
Body Temperature (°C)	0,210	0,047
Respiratory rate / min	-0,013	0,902
Pulse/min	0,240	0,023
MAP (mmHg)	-0,534	<0,001
GCS	-0,099	0,351

It was determined that the lactate level of the subjects with altered consciousness was significantly higher (p<0.05). No significant relationship was found between the focus of infection and lactate level (p>0.05). It was determined that lactate level increased significantly as the severity of sepsis increased (p<0.05). The lactate level of the patients who died was found to be significantly higher (p<0.05) (Table 2).

Table 2. The relation of lactate level with Consciousness, Infection focus, Infection level and Mortality

		Number of cases n(%)	Median (IQR)	p
Change of consciousness	Yes	13 (14.4)	4 (2,3)	0.004
	No	77 (85.6)	2 (1,7)	
Focuof infection	Soft tissue infection	7 (7,8)	1,8 (1, 8)	0,837
	urinary system	24 (26,7)	2,1 (1, 6)	
	gastrointestinal tract	6 (6,7)	2,8 (2,8)	
	respiratory system	42 (46,7)	2,5 (2,1)	
	Other	4 (4,4)	2,5 (1,7)	
	Combined	7 (7,8)	3,2 (3,7)	
Level of enfection	Sepsis	59 (65.6)	1.7 (1.2)	<0,001
	Septic shock	26 (28.9)	3.4 (1.9)	
	Multiorgan disfunction	5 (5.5)	6.5 (6.8)	
Mortality	Alive	56 (62.2)	2 (1.7)	0.001
	Exitus	34 (37.8	3.6 (3.7)	

Discussion

Sepsis is a disease with a high mortality rate and is mostly diagnosed in ED. One of the biggest factors in reducing mortality in sepsis is to start treatment as soon as possible. However, due to the different formations of the disease, the diagnosis process may be prolonged (5, 6).

In the studies, it was stated that the age range of the cases presenting with sepsis was between 55-65 years and these patients were 50-55% male (7-9). In our study, the mean age of the patients was 63 years, and 65% of the cases were male. (65% were found to be male). The reason for the increased incidence of sepsis in the male population may be related to the increased frequency of lung infections as a result of increased occupational exposure and smoking. In addition, we think that the increased use of hygienic products in the female population may have reduced the frequency of sepsis due to urinary tract infection.

In many studies, it has been stated that hypotension increases mortality and therefore, aggressive fluid therapy should be started as soon as possible in hypotensive patients admitted to ED (10, 11). Hunter et al. reported in their study that cases with sepsis progressed with tachycardia, tachypneic and subfebrile fever (12). Berger et al. In their study, they divided the blood lactate level into two groups as below or above 4 and stated that the fever level was not different in both groups, the heart rate and respiratory rate increased in those with blood lactate level above 4, and MAP decreased (13). In our study, the blood lactate level; body temperature and pulse rate are positive; It was found that there was a negative correlation between blood pressure and respiratory rate and no correlation with respiratory rate. This may be related to the decrease in tissue oxygen delivery in patients who develop both tachycardia and hypotension.

In the sepsis guideline published in 2016, it was stated that the elevation of lactate is insufficient in the prediction of sepsis, however, it can be used to support the diagnosis (1). Studies have shown that lactate levels increase in patients with sepsis (14, 15). In our study, the median lactate level was found to be 2.4 mmol/L, which is above normal values. We think that the lactate level increases due to increased anaerobic respiration as a result of hypoxia at the tissue level and the inability to clear lactate from the blood due to organ failures (kidney and liver).

Studies have reported that GCS will decrease in sepsis-related encephalopathy and metabolic disor-

ders, and patients may develop unconsciousness (16, 17). While no significant correlation was found between GCS and lactate level in our study group, it was found that lactate level was high in patients with impaired consciousness. Changes in consciousness develop in patients with a bad metabolic picture, however; We think that there is no relationship between lactate and GCS levels, depending on the degree of unconsciousness differing between patients.

In many studies, it was stated that the primary focus of infection was the lung, followed by urinary infection (7, 9, 18, 19). In a thesis study, it was found that there was no relationship between the focus of infection and lactate (16) In our study, sepsis was the first rank due to lung infections, in line with the literature, and no significant relationship was found between lactate and focus of infection. This is occupational exposure, excessive smoking, We are of the opinion that the frequency of sepsis due to pneumonia increases due to the frequent development of chronic obstructive pulmonary disease (COPD).

Studies have reported that lactate levels increase as the patient's clinic worsens (10, 16). In our study, in accordance with the literature; It was found that as the patient's clinic worsened, the lactate level increased. This may be related to the higher rate of circulatory disorders and damage to multiple organ systems in patients with bad clinical status.

Glickman et al. Puskarich, and Lee et al. stated that lactate level is an indicator of mortality in their studies (18, 20, 21). Musikatavorn, on the other hand, did not find a relationship with lactate level and 30-day mortality and attributed this to the fact that the patients were young (18). In our study, lactate levels were found to be high in patients with a mortal course, and this may be related to continuous hypotension and an irreversible process after a while.

Conclusion: Lactate level is a parameter with high predictive value for bad prognosis and mortality in patients with sepsis.

References

1. Singer M, Deutschman CS, Seymour CW, Shankar-Hari M, Annane D, Bauer M, et al. The third international consensus definitions for sepsis and septic shock (Sepsis-3). Jama. 2016;315(8):801-10.
2. Wang HE, Shapiro NI, Angus DC, Yealy DM. National estimates of severe sepsis in United States emergency departments. Critical care medicine. 2007;35(8):1928-36.
3. Sherwin R, Winters ME, Vilke GM, Wardi G. Does early and appropriate antibiotic administration improve mortality in emergency department patients with severe sepsis or septic shock? The Journal of emergency medicine. 2017;53(4):588-95.
4. Sargin G, Yavasoglu I, Kadiköylü G, Bolaman Z. Laktik Asidoz: Olgular Üzerinden Kisa Bir Gözden Geçirme/ Lactic Acidosis: A Short Review of Cases. Journal of Critical and Intensive Care. 2011;2(3):63.
5. Rivers E, Nguyen B, Havstad S, Ressler J, Muzzin A, Knoblich B, et al. Early goal-directed therapy in the treatment of severe sepsis and septic shock. New England journal of medicine. 2001;345(19):1368-77.
6. Lee WJ, Woo SH, Kim DH, Seol SH, Park SK, Choi SP, et al. Are prognostic scores and biomarkers such as procalcitonin the appropriate prognostic precursors for elderly patients with sepsis in the emergency department? Aging clinical and experimental research. 2016;28(5):917-24.
7. Nguyen SQ, Mwakalindile E, Booth JS, Hogan V, Morgan J, Prickett CT, et al. Automated electronic medical record sepsis detection in the emergency department. Peerj. 2014;2:e343.

8. Madsen TE, Napoli AM. The DISPARITY-II study: delays to antibiotic administration in women with severe sepsis or septic shock. Academic Emergency Medicine. 2014;21(12):1499-502.

9. Singer AJ, Taylor M, Domingo A, Ghazipura S, Khorasonchi A, Thode Jr HC, et al. Diagnostic characteristics of a clinical screening tool in combination with measuring bedside lactate level in emergency department patients with suspected sepsis. Academic Emergency Medicine. 2014;21(8):853-7.

10. Yel C. Sepsisli hastalarda end tidal karbondioksit ve kan laktat düzeyi arasındaki ilişkinin karşılaştırılması. (Uzmanlık Tezi) Ankara 2014.

11. Michaud I, Pietropaoli AP, Trawick DR, et al. Early fluid resuscitation and outcome in severe sepsis and septic shock. Available from http://www.abstracts2view.com/ats/view. Php? Nu=ATS3L_3825. Accessed May 12, 2022.

12. Hunter CL, Silvestri S, Dean M, Falk JL, Papa L. End-tidal carbon dioxide is associated with mortality and lactate in patients with suspected sepsis. The American journal of emergency medicine. 2013;31(1):64-71.

13. Puskarich MA, Jones AE, Septis. In:Tintinalli JE (Eds), Emergency Medicine:A Comprehensive Study Guide (7th ed), mcgraw-Hill 2016;Pp:1021-1029.

14. Calandra T, Baumgartner J-D, Grau GE, Wu M-M, Lambert P-H, Schellekens J, et al. Prognostic values of tumor necrosis factor/cachectin, interleukin-l, interferon-α, and interferon-γ in the serum of patients with septic shock. Journal of Infectious Diseases. 1990;161(5):982-7.

15. Rackow EC, Astiz ME. Pathophysiology and treatment of septic shock. Jama. 1991;266(4):548-54.

16. Sürer S. Sepsiste acil yaklaşım ve serum laktat seviyesi ilişkisi (Uzmanlık Tezi) Adana 2016

17. Drumheller BC, Agarwal A, Mikkelsen ME, Sante SC, Weber AL, Goyal M, et al. Risk factors for mortality despite early protocolized resuscitation for severe sepsis and septic shock in the emergency department. Journal of critical care. 2016;31(1):13-20.

18. Musikatavorn K, Thepnimitra S, Komindr A, Puttaphaisan P, Rojanasarntikul D. Venous lactate in predicting the need for intensive care unit and mortality among nonelderly sepsis patients with stable hemodynamic. The American journal of emergency medicine. 2015;33(7):925-30.

19. Yıldız Ö. Sepsis Hastalarında Protokole Dayalı Yaklaşımın Başarısı: Prospektif Gözlemsel Çalışma (Uzmanlık Tezi). Trakya Üniversitesi Göğüs Hastalıkları ABD. Edirne-2010.

20. Glickman SW, Cairns CB, Otero RM, Woods CW, Tsalik EL, Langley RJ, et al. Disease progression in hemodynamically stable patients presenting to the emergency department with sepsis. Academic Emergency Medicine. 2010;17(4):383-90.

21. Lee S, Hong Y, Park D, Choi S, Moon S, Park J, et al. Lactic acidosis not hyperlactatemia as a predictor of inhospital mortality in septic emergency patients. Emergency Medicine Journal. 2008;25(10):659-65.

Clinical differences in cases with upper and lower gastrointestinal bleeding

Metin özgür Şahan

Abstract

Clinical differences in cases with upper and lower gastrointestinal bleeding

Objective: In our study, we aimed to contribute to the literature by evaluating the differences between upper and lower gastrointestinal bleeding.

Material and method: Our study was carried out retrospectively with 430 patients hospitalized in Hatay Training and Research Hospital Emergency Department between 01.09.2021 and 31.08.2022 with the diagnosis of GI bleeding. Age, gender, symptoms and signs, vital parameters, drug and comorbidity history in the etiology of GI bleeding, blood values and some blood parameters, transfusion status and mortality levels of the cases with upper and lower GI bleeding were compared. In addition, the endoscopy results of the patients were examined. In our study, data analysis was done with SPSS version 22. In the representation of quantitative data, median, interquantile range (IQR) values; The number of cases (n) and percentil (%) were used in the display of qualitative data. The distribution of quantitative data was evaluated with the Kolmogrov Smirnov test. Mann Whitney U test was used in the analysis of non-parametric data. Chi-square test was used to compare qualitative data. P<0.05 was considered significant.

Results: In our study, 367 (85.3%) of the cases had upper GI bleeding. The median age of the patients was 69.5 (IQR:26) years, and the patients with lower GI bleeding were older (p<0.05). 60.9% of the cases were male and no difference was found between the groups in terms of gender (p>0.05). While the most common symptoms were melana and hematemesis in cases with upper GI bleeding, hematochezia was found in lower GI bleeding cases (p<0.05). There was no difference in vital parameters of the groups (p>0.05). While the history of previous bleeding and the use of nonsteroidal anti-inflammatory drugs were significantly higher in patients with upper GI bleeding, the frequency of anticoagulant bleeding was significantly higher in patients with lower GI bleeding (p<0.05). There was no difference between the groups in blood urea nitrogen, creatinine, white blood cell, hemoglobin, hematocrit, platelet and INR values (p>0.05). While there was no difference between the number of patients given erythrocyte suspension (ES) in both groups (p>0.05), the amount of ES given to patients with lower GI bleeding was found to be higher (p<0.05). There was no difference between the groups in terms of length of hospital stay and mortality (p>0.05). While 98% pathology was detected in the endoscopy in cases with upper GI bleeding, this rate was 81.6 in cases with lower GI bleeding.

Conclusion: Although some differences were found in upper and lower GI bleedings in our study, the important thing is to diagnose the patient and start treatment as soon as possible. Therefore, we believe that there is no significant clinical or laboratory difference between these two groups.

Keywords: Emergency medicine, gastrointestinal bleeding

Introduction

Gastrointestinal system bleeding (GIBC) is bleeding from any part of the digestive system; Bleeding up to the ligament of Treitz is called upper GI bleeding, and then lower GI bleeding.

The frequency of upper GI bleeding is approximately four times higher than that of lower GI bleeding. Most of the upper GICH bleedings (80-85%) stop spontaneously only with supportive treatment, however, 15-20% of them require interventional intervention(1). Determination of the bleeding focus in acute GI bleeding is important

both in determining the treatment protocol and in terms of the interventional procedure. This is not always possible with anamnesis and examination.Some symptoms and signs are seen in both the upper and lower GIS. For example, hematamesis is only seen in upper GI bleeding; melana and hematochezia can be seen in both upper and lower GI bleedings.This prevents the endoscopic intervention for the focus, and the patient is scanned with both upper and lower GI endoscopy (source).

In our study, we aimed to contribute to the literature by evaluating the differences between upper and lower gastrointestinal bleeding.

Material and Method

Our study was carried out retrospectively with 430 patients hospitalized in Hatay Training and Research Hospital Emergency Department between 01.09.2021 and 31.08.2022 with the diagnosis of GI bleeding.

Age, gender, symptoms and signs, vital parameters, drug and comorbidity history in the etiology of GI bleeding, blood values and some blood parameters, transfusion status and mortality levels of the cases with upper and lower GI bleeding were compared. In addition, the endoscopy results of the patients were examined.

For the patient group under 18 years old, Patients whose GI bleeding was excluded as a result of endoscopy, whose data cannot be accessed from the patient cards/automation system, cardiopulmonary resuscitation was done, Cases of arrest of unknown cause and patients with pathologies with other metabolic diseases leading to lactic acidosis were excluded.

In our study, data analysis was done with SPSS version 22. In the representation of quantitative data, median, interquantile range (IQR) values; The number of cases (n) and percentil (%) were used in the display of qualitative data. The distribution of quantitative data was evaluated with the Kolmogrov Smirnov test. Mann Whitney U test was used in the analysis of non-parametric data. Chi-square test was used to compare qualitative data. $P<0.05$ was considered significant.

Results

In or study, 367 (85.3%) of the cases had upper GI bleeding. The median age of the patients was 69.5 (IQR:26) years, and the patients with lower GI bleeding were older ($p<0.05$). 60.9% of the cases were male and no difference was found between the groups in terms of gender ($p>0.05$). While the most common symptoms were melana and hematemesis in cases with upper GI bleeding, hematochezia was found in lower GI bleeding cases ($p<0.05$). The most common comorbidities are hypertension (HT) and diabetes mellitus (DM); GI bleeding history was significantly higher in cases with upper GI bleeding ($p<0,05$). There was no difference in vital parameters of the groups ($p>0.05$). While the history of previous bleeding and the use of nonsteroidal anti-inflammatory drugs were significantly higher in patients with upper GI bleeding, the frequency of anticoagulant bleeding was significantly higher in patients with lower GI bleeding ($p<0.05$). There was no difference between the groups in blood urea nitrogen, creatinine, white blood cell (WBC), hemoglobin (HB), hematocrit (HTC), platelet (PLT) and INR values ($p>0.05$). While there was no difference between the number of patients given erythrocyte suspension (ES) in both groups ($p>0.05$), the amount of ES given to patients with lower GI bleeding was found to be higher ($p<0.05$). There was no difference between the groups in terms of length of hospital stay and mortality ($p>0.05$) (Tablo 1).

Table 1. Relationship between mortality frequency and demographic and clinical characteristics

			Gİ Blending		p
		Total (n:430)	Up (n:367)	Lower (n:63) n (%)	
Age, Median (IQR)		69,5 (26)	68 (26)	72 (18)	0.004
Gender	Male, n(%)	168 (%39.1)	138 (%37.6)	30 (%47.6)	0.132
	Female, n(%)	262 (%60.9)	229 (%62.4)	33 (%52.4)	
Symptom,	Melana, n(%)	210 (%48.8)	208 (%56.7)	2 (%3.2)	<0.001
	Hematemesis, n(%)	202 (%47)	202 (%55)	0 (%0)	<0.001
	Hematochezia, n(%)	84 (%19.5)	25 (%6.8)	59 (%93.7)	<0.001
	Syncope, n(%)	52 (%12.1)	47 (%12.8)	5 (%7.9)	0.273
	Dizziness, n(%)	48 (%11.2)	47 (%12.8)	1 (%1.6)	0.009
	Chest Pain, n(%)	2 (%0.5)	2 (%0.5)	0 (%0)	0.557
	Nefes darlığı, n(%)	14 (%3.3)	13 (%3.5)	1 (%1.6)	0.419
Vital parameter	SBP (mmHg), Median (IQR)	112 (30)	112 (30)	120(40)	0.051
	DBP (mmHg), Median (IQR)	68 (25)	66 (25)	70 (22)	0.204
	Pulse (rate//min) Median (IQR)	90 (25)	90 (23)	88 (25)	0.068
Comorbitiy	Hypertension, n(%)	187 (43.5)	154 (42)	33 (52.4)	0.123
	Diabetes mellitus, n(%)	129 (30)	111 (30.2)	18 (28.6)	0.789
	Heart Diases, n(%)	126 (%29.3)	101 (%27.5)	25 (%39.7)	0.050
	History of Gİ Blending, n(%)	115 (%26.7)	105 (%28.6)	10 (%15.9)	0.035
	COPD, n(%)	92 (21.4)	82 (22.3)	10 (5.9)	0.247
	Malignancy, n(%)	79 (%18.4)	66 (%18)	13 (%20.6)	0.616
	Liver Diases, n(%)	65 (%15.1)	59 (%16.1)	6 (%9.5)	0.180
	Other, n(%)	117 (27.2)	102 (27.8)	15 (23.8)	0.512
History of Drug use	Anti-aggregate, n(%)	101 (%23.5)	86 (%23.4)	15 (%23.8)	0.948
	Anti- coagulant, n(%)	45 (%10.5)	33 (%9)	12 (%19)	0.016
	NSAİD, n(%)	93 (%21.6)	89 (%24.3)	4 (%6.3)	0.001
RT	Normal stool, n(%)	90 (%20.9)	90 (%24.5)	0 (%0)	<0.001
	Melena, n(%)	237 (%55.1)	235 (%64)	2 (%3.2)	
	Hematochezia, n(%)	87 (%20.2)	29 (%7.9)	58 (%92.1)	
	Empety ampulla, n(%)	16 (%3.7)	13 (%3.5)	3 (%4.8)	
Blood parameter	Creatinine (mg/dl), Median (IQR)	0.93 (0.6)	0.93 (0.6)	0.99 (0.7)	0.068
	Urea (mg/dl), Median (IQR)	72.8 (59.9)	77 (60.8)	55.6 (43.9)	0.522
	WBC (x10³/mm³), Median (IQR)	10.6 (5.9)	10.7 (5.9)	9.7 (5.1)	0.865
	Hb (g/dl), Median (IQR)	8.4 (3.4)	8.3 (3.4)	8.8 (3.5)	0.124
	Hct (%), Median (IQR)	25.2 (9.6)	24.9 (9.8)	26.1 (9.8)	0.112
	Platelet (x10³/mm³), Median (IQR)	236 (134)	229 (132)	254 (158)	0.094
	INR, Median (IQR)	1.2 (0.3)	1.2 (0.3)	1.2 (0.4)	0.730
Es transfusion, n(%)		330 (%76.7)	285 (%77.7)	45 (%71.4)	0.280
Es quatity, Median (IQR)		4 (5)	4 (5)	5 (5)	0.042
Length of stay, Median (IQR)		5 (6)	5 (6)	6 (9)	0.423
Mortality	Exitus, n(%)	20 (%4.7)	15 (%4.1)	5 (%7.9)	0.180
	Survival, n(%)	410 (%95.3)	352 (%95.9)	58 (%92.1)	

SBP: Systolic blood pressure DBP: Diastolic blood pressure COPD: Chronic obstructive pulmonary disease, NSAİD: Nonsteroidal antiinflammatory drugs, ES: Erythrocyte suspension

While 98% pathology was detected in the endoscopy in cases with upper GI bleeding, this rate was 81.6 in cases with lower GI bleeding. The most common lesion detected in upper GI endoscopy was gastritis, while diverticulum was found in the lower GI blending (Table 2).

Table 2. Endoscopic findings

	Up GI Blendig (n:389) n(%)	Lower Gİ Blending (n:71) n(%)
Ulcer in endoscopy	201 (%50,6)	
gastritis in endoscopy	235 (%59,2)	
Varicose veins in endoscopy	56 (%14,1)	
Mallory Weiss in endoscopy	9 (%2,3)	
Mass in endoscopy	47 (%11,8)	
Erosion in Endoscopy	62 (%15,6)	
Esophagitis in Endoscopy	48 (%12,1)	
Mass in colonoscopy		14 (%16,1)
Diverticulum in colonoscopy		19 (%21,8)
Polyp in colonoscopy		16 (%18,4)
Ulcer in colonoscopy		16 (%18,4)
Angiodysplasia in colonoscopy		3 (%3,4)

Discussion

Many studies have shown that patients with GI bleeding are more common in the elderly and male population(1-4) In our study, consistent with the literature, it was found that GI bleeding was common in men and in the elderly. In addition, the median age was found to be significantly higher in patients with lower GI bleeding. We are of the opinion that GI bleeding is more common in older ages due to the increase in the catabolic process with increasing age, the increase in comorbid diseases and the frequency of drugs used, and the deterioration of gastric mucosa and vascular structures. We are of the opinion that the male population has more frequent GI bleeding due to the fact that the male population leads a more irregular life. The frequency of lower GI bleeding may be increased due to the increased incidence of malignancy and angiodysplasia in advanced ages.

Melena and hematemesis are the most common symptoms in patients with upper GI bleeding; In cases with lower GI bleeding, hematochezia has been reported. (1, 2, 5). In our study, in accordance with the literature, the most common findings in cases with upper GI bleeding were melana, hematemesis, and dizziness; lower GI bleeding and hematochezia in the cases

Hematemesis is not seen in lower GI bleeding and bleeding is seen as hematochezia because the bleeding is distal, We believe that dizziness develops more frequently because melana is seen even in mild bleeding from the upper GIS and because upper GI bleedings generally have a more acute course. As a matter of fact, the fact that

systolic blood pressure is lower in patients presenting with upper GI bleeding, albeit statistically insignificant, supports our thesis.

In cases with GI bleeding, blood pressure and pulse rate are two important parameters that show the hemodynamic status of the patient.(5). In our study, no significant difference was found between the vitals of upper and lower bleeding. We believe that this situation is related to the amount of bleeding rather than the bleeding focus of vital parameters.

In many studies, it has been stated that some comorbid diseases and drugs increase the frequency of GI bleeding. In these studies, it was stated that the most common comorbid disease was hypertension and the most commonly used drugs [anticoagulant, antiaggregant and nonsteroidal anti-inflammatory (NSAI)] (6-8). In a study, upper and lower GI bleedings were compared and cirrhosis was observed in cases with upper GI bleeding, The incidence of malignancy was found to be high in cases with lower GI bleeding (9). In our study, in accordance with the literature, the most common comorbidity was hypertension and the most commonly used drug was NSAID. Patients with a previous history of GI bleeding, the frequency of upper GI bleeding in patients using NSAIDs, and the frequency of lower GI bleeding in patients using anticoagulants were found to be high. Due to the elderly population of our patient population, HT is common in the community And again, we believe that NSAIDs are commonly used to relieve muscle and joint pain, which is common in these patients. We believe that patients who applied with upper GI bleeding did not change their lifestyle (smoking, alcohol, eating-drinking, etc.) so they applied again with upper GI bleeding. NSAID group drugs inhibit prostaglandin E2 synthesis and decrease blood flow and mucus secretion, increase bile acids, We believe that it often causes upper GI bleeding due to the epithelial tight junctions and the effect of bacterial components on the submucosal space. We think that in cases using anticoagulants, it causes bleeding in any part of the intestinal wall and lower GI bleeding is more common because the lower GIS segment is long.

Tomizawa et al. in their study, in cases with upper GI bleeding, It was determined that HB decreased, BUN was higher and wbc, plt and creatinine values did not change compared to lower GI bleeding. (10). Ziabari et al. HB and thrombocyte in patients with upper GI bleeding in their study; BUN and creatinine were found to be lower in patients with lower GI bleeding.

In our study, no difference was found between the groups in terms of BUN, creatinine, WBC, HB, HTC, PLT and INRConsistent with the literature, although HB, HTC and PLT values were low and BUN values were high in cases with upper GI bleeding, no significant difference was found between the values depending on the possible number of patients. In a study, it was stated that the most common lesion was gastric ulcer in cases with upper GI bleeding, and malignancies took the first place in lower GI cases(10). Erkus et al. stated in his study that the most common diagnosis seen in cases with upper GI bleeding was ulcer. Celebi et al. evaluated the results of lower GIS endoscopy in their study and found that the most common pathology was a mass. In our study, in accordance with the literature, the most common upper GI pathology was gastritis and ulcer; lower GIS pathology was diverticulum and mass.

The rate of blood donation to patients in cases with GI bleeding was expressed as 69-82%. Although the average amount of blood donation is expressed as 2 units, it may vary according to the patient's clinic and blood values. (12, 13). In our study, 76.7% of the patients were given ES and although the number of people given ES was similar between the groups, the amount given was found to be significantly higher in cases with lower GI bleeding. Large bowel surface in the lower GI tract during endoscopic intervention in cases with lower GI bleeding and In some cases, even if the focus is seen, bleeding may continue for longer because it cannot be intervened endoscopically. This may have increased the need for ES in patients with lower GI bleeding. In the studies, it has been stated that the hospitalization period is 4-6 days and the mortality rate is 5-13% in cases with GI bleeding, and this rate may increase. (1, 5, 12-14). Mortality rate can be up to 40% in hemodynamically unstable patients. (15).

In our study, no significant difference was found between the length of hospital stay and mortality rates of the groups. Intervention of patients presenting with GI bleeding by undergoing endoscopy as soon as possible, Spontaneous cessation of bleeding in most cases, close comorbidities for both groups and Duration of hospitalization between groups in relation to the close number of patients who died due to massive bleeding and we think that there is no difference in terms of mortality.

References

1. Jaka H, Koy M, Liwa A, Kabangila R, Mirambo M, Scheppach W, et al. A fibreoptic endoscopic study of upper gastrointestinal bleeding at Bugando Medical Centre in northwestern Tanzania: a retrospective review of 240 cases. BMC research notes. 2012;5:200.
2. Shrestha MP, Borgstrom M, Trowers EA. Elevated lactate level predicts intensive care unit admissions, endoscopies and transfusions in patients with acute gastrointestinal bleeding. Clinical and experimental gastroenterology. 2018;11:185-92.
3. Lee SH, Min YW, Bae J, Lee H, Min BH, Lee JH, et al. Lactate Parameters Predict Clinical Outcomes in Patients with Nonvariceal Upper Gastrointestinal Bleeding. Journal of Korean medical science. 2017;32(11):1820-7.
4. Wada T, Hagiwara A, Uemura T, Yahagi N, Kimura A. Early lactate clearance for predicting active bleeding in critically ill patients with acute upper gastrointestinal bleeding: a retrospective study. Intern Emerg Med. 2016;11(5):737-43.
5. Konyar Z, Guneysel O, Dogan FS, Gokdag E. Modification of Glasgow-Blatchford scoring with lactate in predicting the mortality of patients with upper gastrointestinal bleeding in emergency department. Hong Kong Journal of Emergency Medicine. 2019;26(1):31-8.
6. Siddique SM, Mehta SJ, Lewis JD, Neuman MD, Werner RM. Rates of hospital readmission among Medicare beneficiaries with gastrointestinal bleeding vary based on etiology and comorbidities. Clinical Gastroenterology and Hepatology. 2019;17(1):90-7. e3.
7. Gölgeli H, Ecirli Ş, Kutlu O, Başer H, Karasoy D. Evaluation of the patients that followed up for upper gastrointestinal system bleeding. Dicle Med J. 2014;41:495-501.
8. Baradaran F, Norouzi A, Tavassoli S, Baradaran A, Roshandel G. Factors associated with outcome in patients with acute upper gastrointestinal bleeding in a tertiary referral center in Northern Iran. Middle East journal of digestive diseases. 2016;8(3):201.
9. Ziabari SMZ, Rimaz S, Shafaghi A, Shakiba M, Pourkazemi Z, Karimzadeh E, et al. Blood urea nitrogen to creatinine ratio in differentiation of upper and lower gastrointestinal bleedings; a diagnostic accuracy study. Archives of academic emergency medicine. 2019;7(1).
10. Tomizawa M, Shinozaki F, Hasegawa R, Shirai Y, Motoyoshi Y, Sugiyama T, et al. Laboratory test variables useful for distinguishing upper from lower gastrointestinal bleeding. World journal of gastroenterology: WJG. 2015;21(20):6246.
11. Erkuş E, Helvacı A, Bodur Ö, Özsoy N. Üst Gastrointestinal Sistem Kanamalı 99 Olgunun İncelenmesi. Okmeydanı Eğit Araşt Hastan Tıp Derg. 2013;29(2):76-80.
12. Karaman K, Oğuzlar FÇ, Hatip AY, Coşkun G, Armağan HH, Oskay A. Effects of Seasonal Variation on Upper Gastrointestinal System Bleeding in Emergency Department. Süleyman Demirel Üniversitesi Sağlık Bilimleri Dergisi. 2019;10(1):44-7.
13. Sağiroğlu MF, Çalapkulu M, Gülten M. Gastroenteroloji kliniğine başvuran akut üst gastrointestinal

sistem kanamalı hastaların retrospektif değerlendirilmesi. Uludağ Üniversitesi Tıp Fakültesi Dergisi. 2020;46(3):343-7.

14. Cander B, Ertekin B, Hasan K, Mehmet G, Dündar D, Koçak S, et al. Acil servise gastrointestinal kanama ile başvuran hastalarda hastane yatış süresini etkileyen faktörler. Fırat Tıp Dergisi. 2011;16(2):51-4.

15. Walsh RM, Anain P, Geisinger M, Vogt D, Mayes J, Grundfest-Broniatowski S, et al. Role of angiography and embolization for massive gastroduodenal hemorrhage. Journal of Gastrointestinal Surgery. 1999;3(1):61-6.

ATRIYAL FIBRILASYON GÜNCELLEMELER VE ÖNEMLI NOKTALAR 2023 ACC/AHA/ACCP/HRS

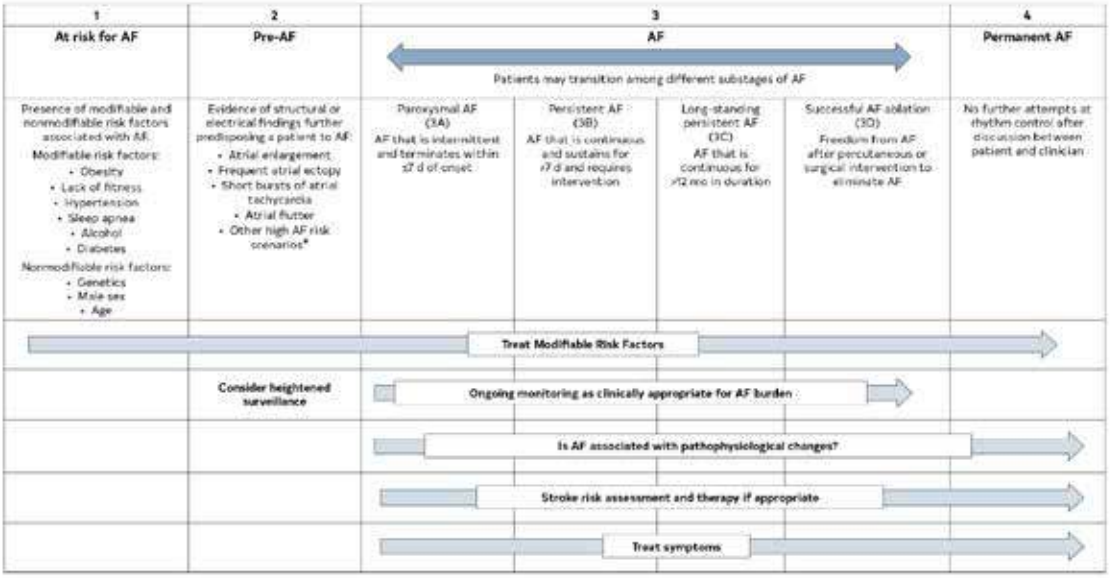
Doç. Dr. Abdullah Algın

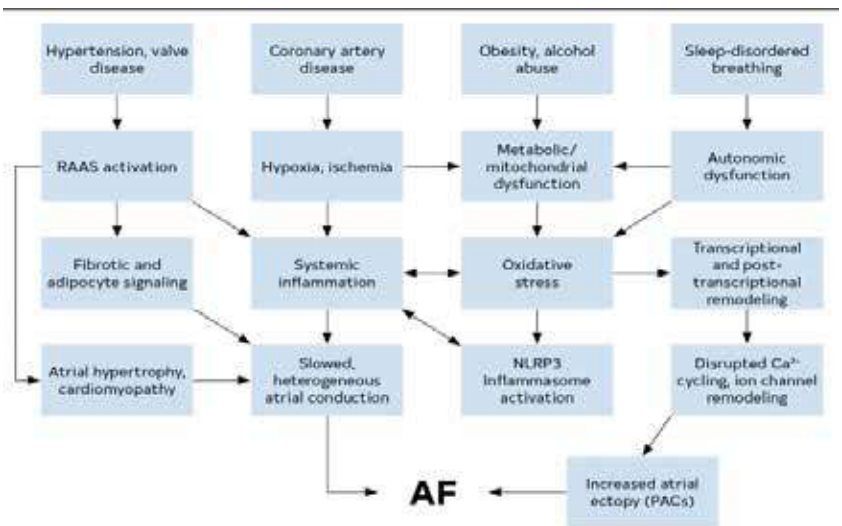
Sağlık Bilimleri Üniversitesi, Ümraniye Eğitim ve Araştırma Hastanesi Acil Tıp Kliniği

2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation

A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society

Atrial Aritmi Sınıflaması





AF Yönetiminde Yaşam Tarzı ve Risk Faktörleri Modifikasyonu

COR 1– ve LOR B–NR = Atriyal fibrilasyon (AF) riski yüksek olan hastalar; obezite, fiziksel hareketsizlik, sağlıksız alkol tüketimi, sigara kullanımı, diyabet ve hipertansiyon gibi risk faktörlerine yönelik kılavuza uygun kapsamlı yaşam tarzı değişiklikleri (YTD) almalıdır.

COR 1 ve LOE B–R = Aşırı kilolu veya obez (vücut kitle indeksi [VKİ] >27 kg/m²) atriyal fibrilasyon (AF) hastalarında, semptomları, AF yükünü, nüksleri ve kalıcı AF'ye ilerlemeyi azaltmak amacıyla **kilo kaybı önerilmektedir**. İdeal hedef, hastanın mevcut kilosunun en az %10'unu kaybetmesidir.

COR 1 ve LOE B–R = Atriyal fibrilasyon (AF) hastalarında, semptomları ve AF yükünü azaltmak, sinüs ritminin korunmasını desteklemek, fonksiyonel kapasiteyi artırmak ve yaşam kalitesini iyileştirmek amacıyla **haftada en az 210 dakikalık hedefe yönelik orta ila şiddetli egzersiz önerilmektedir**.

COR 1 ve LOE B–NR = Atriyal fibrilasyon (AF) öyküsü olan ve sigara kullanan hastalara **sigarayı bırakmaları şiddetle önerilmektedir**. Bu sayede AF ile ilişkili kardiyovasküler komplikasyonlar ve diğer olumsuz klinik sonuçların riski azaltılabilir. Hastalar, tütün bırakma sürecinde gerektiğinde **profesyonel destek ve danışmanlık almalıdır**.

COR 1 ve LOE B-R = Ritim kontrol stratejisi isteyen AF'li hastalar, AF nüksünü ve yükünü azaltmak için alkol tüketimini en aza indirmeli veya tamamen bırakmalıdır.

COR 1 ve LOE B-NR = AF ve hipertansiyonu olan hastalarda, AF nüksünü ve AF ile ilişkili kardiyovasküler olayları azaltmak için optimal KB kontrolü önerilmektedir.

COR 2b ve LOE B-NR =Sinüs ritmini korumak için uykuda solunum bozukluğu (SDB) tedavisinin rolü belirsiz olsa da, AF'li hastalarda yüksek prevalansı göz önüne alındığında, obstrüktif uyku apnesinin taranması makul olabilir.

Temel Değerlendirme

COR 1 ve LOE B-NR = Kardiyak yapıların Ekokardiyografi ile değerlendirilmesi ve Metabolik panel, Tiroid fonksiyon testi ve diğer kan parametreleri ile yeni tanı konulan AF hastaları VE klinik şüpheli AF hastalarında diğer metabolik süreçleri göz önünde bulundurarak Kanama ve Stroke risk faktörleri değerlendirilmesi önerilmektedir.

COR 3 ve LOE B-NR = Yeni tanı konulan AF hastalarında **ACS, PE, İskemi ile ilgili protokoller rutinde uygulanmamalıdır**.

Tromboembolizmin Önlenmesi

Risk Faktörleri	CHA_2DS_2-VASc	ATRIA	GARFIELD
≥85 yaş		6	0.98
≥75 yaş	2	5	0.59
65-74 yaş	1	3	0.20
Kadın cinsiyet	1	1	
Hipertansiyon	1		0.16
Böbrek hastalığı		1	0.35
Diyabet	1	1	0.21
Aktif sigara kullanımı			0.48
Konjestif kalp yetmezliği	1	1	0.23
Önceki inme veya TİA	2	2–8*	0.80
Vasküler hastalık	1		0.20
Demans			0.51
Kanama öyküsü			0.30
Proteinüri		1	
Düşük risk skoru	0	0–5	0–0.89
Orta risk skoru	1	6	0.90–1.59
Yüksek risk skoru	≥2	7–15	≥1.60
C-indeksi (11)	0.63	0.66	-
C-indeksi (13)	0.67	-	0.71

ATRIA, CHA_2DS_2-VASc ve GARFIELD-AF skorları, atriyal fibrilasyon (AF) hastalarında antikoagülasyon kararlarını desteklemek ve tromboembolik riskleri değerlendirmek için kullanılan önemli risk skorlarıdır. **ATRIA skoru**, anemi, böbrek hastalığı (GFR <30 ml/dk), ileri yaş (≥75 yıl), önceki hemorajik olaylar ve hipertansiyon gibi faktörleri içerir. **CHA_2DS_2-VASc skoru** ise konjestif kalp yetmezliği, hipertansiyon, ileri yaş (≥75 yıl, iki puan), diabetes mellitus, önceki inme veya geçici iskemik atak/tromboembolizm (iki puan), vasküler hastalık, 65–74 yaş arası ve kadın cinsiyeti kapsar. **GARFIELD-AF (Global Anticoagulant Registry in the Field–Atrial Fibrillation)**, geniş hasta popülasyonlarında AF'li bireylerde antikoagülasyon uygulamalarını ve sonuçlarını izlemeye yönelik bir kayıt çalışmasıdır. Ayrıca GİA (geçici iskemik atak) öyküsü, her iki skorda da tromboembolik riskin artışını gösteren önemli bir kriterdir.

Risk durumuna göre öneri		
COR	**LOE**	**Öneri**
I	B-NR	AF'li hastalar yıllık tromboemboli riski açısından valide edilmiş bir risk skoru- **CHA2DS2-VASc**- ile değerlendirilmelidir.
I	B-NR	AF'li hastalar **yüksek kanama riski yapan faktörler**-önceki kanamalar, kanama trendi yapan ilaç alımı- **açısından antikoagülana sekonder olası kanamayı engelleyici girişimleri belirlemek açısından değerlendirilmelidirler.**
2a	C-LD	CHA2DS2-VASc skoruna göre- 1/E; 2/K- **yıllık kanama riski orta düzey** olan AF'li hastalarda **antikoagülan faydası tartışmalı olduğundan karar vermede stroke riskine ek durumlar gözönünde** bulundurularak karar verilmesi önerilmektedir.
3: Fayda yok	B-NR	Stroke risk skoru yüksek olan hastalarda antikoagülan başlanması uygunluğu açısından, kanama risk skorları tek başına kullanılmamalıdır.

Table 1. The CHA_2DS_2-VASc score for risk of stroke in nonvalvular AF.

Risk factor	Score
Congestive cardiac failure	1
Hypertension	1
Age ≥75	2
Diabetes mellitus	1
Stroke/TIA/thromboembolism	1
Vascular disease	1
Age 65–74	1
Female sex	1
Maximum score	9

Notes: A score of 0 indicates low risk; 1 indicates moderate risk; ≥2 indicates high risk. Congestive cardiac failure is defined as left ventricular ejection fraction ≤40%. Hypertension is defined as blood pressure consistently above 140/90 mmHg or treated hypertension on medication. Vascular disease is defined as previous myocardial infarction, peripheral arterial disease or aortic plaque.

Table 11. Additional Risk Factors That Increase Risk of Stroke Not Included in CHA_2DS_2-VASc

Higher AF burden/Long duration
Persistent/permanent AF versus paroxysmal
Obesity (BMI, ≥30 kg/m²)
HCM
Poorly controlled hypertension
eGFR (<45 mL/h)
Proteinuria (>150 mg/24 h or equivalent)
Enlarged LA volume (≥73 mL) or diameter (≥4.7 cm)

AF indicates atrial fibrillation; BMI, body mass index; eGFR, estimated glomerular filtration rate; HCM, hypertrophic cardiomyopathy; and LA, left atrium.

Antitrombotik tedavi önerileri		
COR	**LOE**	**Öneri**
1	A	1. Yıllık tromboemboli riski ≥%2 olan **(CHA2DS2-VASc skoru %2/E; %3/K)** AF'li hastalarda antikoagülan önerilmektedir.
	A	2. **Şiddetli romatizmal mitral darlık ve ya mekanik kapağı olmayan** antikoagülan ihtiyacı olan AF'li hastalarda warfarin yerine **Direk OAK'lar** önerilmektedir.
2a	A	3. Yıllık tromboemboli riski ≥%1 fakat ≤ %2 olan hastalarda antikoagülan verilebilir.
3:Zararlı	B-R	Antikoagülan tedavi düşünülen ancak antiplatelet tedavi endikasyonu olmayan AF'li hastalarda, aspirinin tek başına veya antikoagülasyona alternatif olarak klopidogrel ile kombinasyon halinde kullanılması önerilmez.
3:Yararı yok	B-NR	Stroke riski olmayan AF hastalarında **aspirinin tromboembolik olayları engellemek için monoterapi olarak kullanılması önerilmemektedir**.

Antikoagülanların yönetiminde dikkate alınması gereken durumlar		
COR	**LOE**	**Öneri**
1	C-LD	DOAK alan AF hastaları için, özellikle **CYP3A4 ve/veya p-glikoprotein inhibitörleri** veya **indükleyicileri** ile birlikte tedavi alan hastalarda ilaç etkileşimlerinin optimal yönetimi önerilmektedir
1	B-R	**Varfarin*** alan AF hastaları için, **2 ile 3 arasında hedef INR** önerilir. Ayrıca, ilaç-ilaç etkileşimlerinin optimal yönetimi, K vitamini alımında tutarlılık ve INR'nin rutin izlenmesi, terapötik aralıktaki zamanı artırmak ve önlenebilir tromboembolizm veya büyük kanama risklerini en aza indirmek için önerilmektedir.
3:Zararlı	B-NR	AF hastaları için, kanıta dayalı olmayan DOAK dozlarından kaçınılmalı, bu sayede önlenebilir tromboembolizm veya büyük kanama riskleri en aza indirilmeli ve sağkalım artırılmalıdır.

Önceki bir AF Tanısı Olmayan Hastalarda Cihaz Tarafından Saptanan Atriyal Yüksek Oranlı Epizodlar (AHRE) için Oral Antikoagülasyon Önerileri		
COR	**LOE**	**Öneri**
2a	**B-NR**	Cihaz tarafından **saptanan ≥24 saat süren atriyal yüksek oranlı epizodu (AHRE)** olan ve **CHA2DS2-VASc skoru ≥2 veya eşdeğer inme riski olan hastalar için**, epizod süresini ve bireysel hasta riskini dikkate alarak oral antikoagülasyon başlamak önerilir.
2b	**B-NR**	2-**"Beş dakika ile 24 saat arasında süren AHRE'ye** sahip ve **CHA2DS2-VASc skoru ≥3 veya** eşdeğer inme riski olan hastalar için, epizod süresini ve bireysel hasta riskini dikkate alarak antikoagülasyon başlamak önerilebilir.
3:Yararı yok	**B-NR**	3-Cihaz tarafından tespit edilen **beş dakikadan az süren bir AHRE'ye** sahip ve oral antikoagülasyon için başka bir belirti olmayan hastalar **oral antikoagülasyon almamalıdır**

Uzun Süreli Antikoagülasyonun Kontrendike Olduğu Durumlar ve Makul Olduğu Durumlar

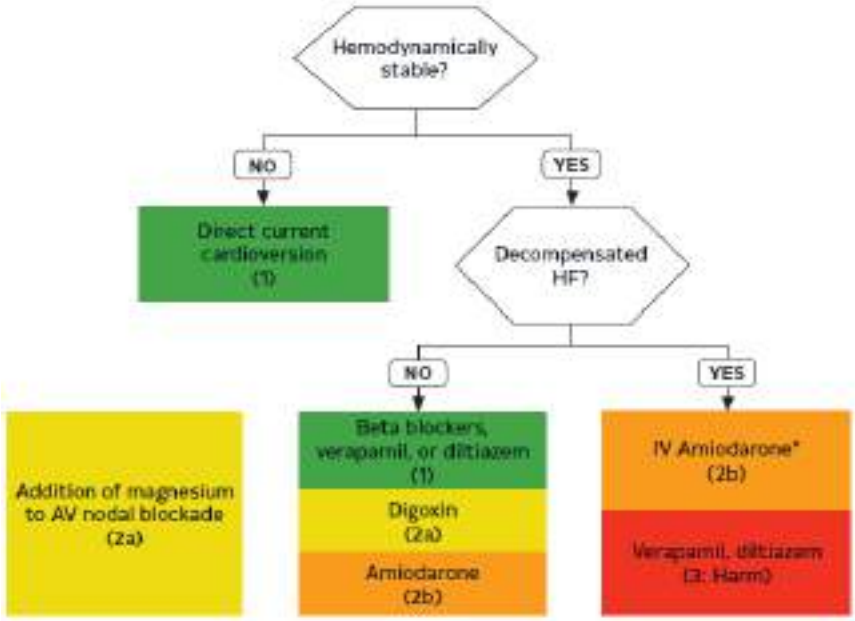
Uzun Süreli Antikoagülasyon Kontrendike	Uzun Süreli Antikoagülasyon Hala Makul
· **Gastrointestinal, pulmoner veya genitoüriner** sistemleri içeren ve geri dönüşü olmayan bir nedene bağlı şiddetli kanama · Geri dönüşü olmayan bir nedene bağlı **spontan intrakraniyal/intraspinal kanama** · Düşme nedeninin tedavi edilebilir olmadığı düşünüldüğünde **tekrarlayan düşmelere bağlı** ciddi kanama	· Tedavi edilebilen gastrointestinal, pulmoner veya genitoüriner sistemleri içeren kanama · İzole travmaya bağlı kanama · Prosedürel komplikasyonlara bağlı kanama

Hız kontrol önerileri		
COR	**LOE**	**Öneri**
2a	**B-R**	Kalp yetmezliği olmayan AF'li hastalarda hedef kalp hızı altta yatan semptomlara göre < 100-110 at./dk hedefinde olmalıdır **(RACE II study*)**

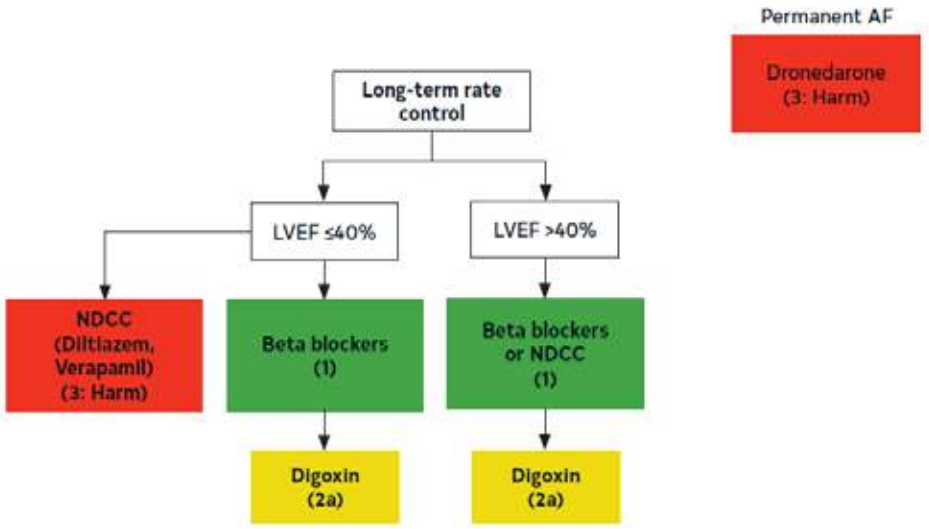
Akut hız kontrol önerileri		
COR	LOE	Öneri
1	B-R	1. **Hemodinamik stabil** hızlı ventrikül yanıtlı AF hastalarında **b blokerler ve nondihidroppyridin kalsiyum kanal bl. (verapamil, diltizem; EF>%40) akut hız kontrolünde** önerilmektedir
2a	B-R	2. ß-bloker ve nondihidropyridin grubu ajanların inefektif veya kontrendike olduğu hastalarda **digoxin** akut hız kontrolü olarak önerilmektedir.
2a	A	3. Standart hız kontrol önlemlerine **ek olarak IV Magnesium** normal hızın elde edilmesinde ilave olarak düşünülebilir.
2b	B-NR	ß-bloker ve nondihidropyridin grubu ajanların inefektif veya kontrendike olduğu **dekompanse KY olan kritik hastalarda IV Amiodaron** hız kontrolüne düşünülmelidir.
3: Zararlı	B-NR	Dekompanse KY olsun ya da olmasın ılımlı **şiddetli LV disfonksiyonu** olan AF'li hastalarda hız kontrolü için **nondihidropyridin grubu ajanlar önerilmemektedir***

Uzun Süreli Ritim Kontrol önerileri		
COR	LOE	Öneri
1	B-NR	AF hastalarında, uzun vadeli hız kontrolü için **beta blokerler veya non-dihidropiridin kalsiyum kanal blokerleri** (diltiazem, verapamil) önerilir.
2a	B-NR	AF olan hastalarda **serum digoksin** seviyelerinin ölçülmesi gereken durumlarda, **hedef seviyelerin <1.2 ng/mL** olması uygundur.
2a	B-R	**AF ve kalp yetmezliği** belirtileri olan hastalarda, diğer hız kontrol ilaçları tercih edilmiyorsa, tolere edilmiyorsa veya kontrendike ise, **digoksinin diğer hız kontrol ilaçları ile birlikte** uzun vadeli kullanımı veya tek başına kullanımı uygun olabilir
3: Zararlı	C-LD	**AF ve LVEF <40%** olan hastalarda, **non-dihidropiridin kalsiyum kanal blokerleri**, kalp yetmezliğini kötüleştirme potansiyelleri nedeniyle **uygulanmamalıdır.**
3: Zararlı	B-R	**Kalıcı AF olan hastalarda** kardiyovasküler olaylar için risk faktörleri olanlarda, **dronedaron** uzun vadeli hız kontrolü için **kullanılmamalıdır**

Hızlı Ventriküler Yanıtlı (RVR) AF'de Akut Hız Kontrolü



AF Uzun Süreli Hız Kontrolü



NE KADAR SIVI? NE KADAR KAN?

Uz. Dr. İbrahim ALTUNDAĞ

Başakşehir Çam ve Sakura Şehir Hastanesi

Acil Tıp Kliniği

ATLS'nin şok bölümünde vurgulanan temel ilke şudur: şok yönetimindeki ilk adım, şokun varlığını tanımaktır. Ancak şok tanı ve tedavisine geçmeden önce primer bakı (ABCDEF) eksiksiz uygulanmalı; havayolu açıklığı ve yeterli ventilasyon sağlandıktan sonra dolaşım, erken şok bulguları açısından değerlendirilmelidir. Sadece sistolik kan basıncına güvenmek tanıyı geciktirebilir; telafi edici mekanizmalar nedeniyle belirgin hipotansiyon, kan volümünün ciddi kısmı kaybedilene kadar görülmeyebilir. Bu nedenle nabız hızı ve karakteri, deri perfüzyonu, solunum sayısı ve nabız basıncı birlikte ele alınmalıdır. Soğuk cilt ve taşikardi saptanan travma hastası, aksi kanıtlanana kadar şokta kabul edilmelidir; hemoglobin/hematokritin erken dönemde normal olabileceği, base deficit ve/veya laktatın şok şiddetini ve tedavi yanıtını izlemede yararlı olduğu unutulmamalıdır.

Travma sonrası şokun en sık nedeni hemorajidir; bu nedenle şok bulguları varlığında tedavi genellikle hipovolemi varsayılarak başlatılırken, eşzamanlı olarak hemorajik–non hemorajik ayrımı yapılmalıdır. Non-hemorajik nedenler içinde kardiyak tamponad, tansiyon pnömotoraks, künt kardiyak yaralanma ve nörojenik şok özellikle akılda tutulmalıdır. Hemorajik şoka yol açabilecek kanama odakları sıklıkla toraks, abdomen, pelvis/retroperitoneum, ekstremiteler ve dış kanamalardır; izole kafa içi kanamalar çoğu zaman hemorajik şok nedeni değildir.

Tedavinin temel amacı, kaybedilen volümü hesaplamaktan ziyade kanamayı kontrol altına almak ve organ perfüzyonunu sürdürmektir. Dış kanamalar bası veya turnike ile kontrol edilir, pelvik kırıklarda pelvik binder kullanılabilir ve iç kanamalarda cerrahi veya anjiyoembolizasyon gerekebilir. Resüsitasyon için geniş lümenli damar yolu açılarak başlangıçta ısıtılmış izotonik kristalloid bolusu uygulanır; hastane öncesi verilen sıvılar mutlaka hesaba katılmalıdır. Kanama kontrolü sağlanmadan normal kan basıncını hedefleyen aşırı kristalloid verilmesi yeniden kanama riskini artırabileceğinden, uygun hastalarda kontrollü/denge resüsitasyon yaklaşımı tercih edilebilir. Vazopressörler hemorajik şokta ilk basamak tedavi değildir.

Sıvı yanıtına göre hastalar hızlı yanıt, geçici yanıt ve minimal/yanıtsız olarak sınıflanır. Geçici yanıt veya yanıtsızlık durumunda devam eden kanama düşünülmeli ve erken kan ürünü replasmanına geçilmelidir. Özellikle Evre III–IV hemorajide, eritrosit süspansiyonu (ES), taze donmuş plazma (TDP) ve trombosit süspansiyonunun (TS) dengeli şekilde 1:1:1 oranında verilmesi, koagülopati ve dilüsyonel trombositopeni gelişimini azaltmayı amaçlayan güncel yaklaşımlardan biridir. Masif kan transfüzyonu genellikle ilk 24 saat içinde ≥10 ünite eritrosit verilmesi veya ilk saat içinde ≥4 ünite gereksinimi olarak tanımlanır ve bu hastalarda erken dönemde masif transfüzyon protokolünün (MTP) başlatılması önerilir. Kan ürünü replasmanının amacı intravasküler hacmi artırmanın ötesinde oksijen taşıma kapasitesini ve hemostazı yeniden sağlamaktır. Resüsitasyon sırasında hipoterminin önlenmesi, koagülopati ve metabolik asidoz gelişimini azaltmak açısından kritik öneme sahiptir; bu nedenle sıvı ve kan ürünlerinin uygun şekilde ısıtılarak verilmesi önerilir.

Sonuç olarak travmada hemorajik şok yönetimi; erken tanı, ABCDEF basamaklarının titizlikle uygulanması, kanama kontrolüne odaklı dengeli resüsitasyon, uygun hastada 1:1:1 oranında kan ürünü replasmanı ve masif transfüzyon kriterlerinin erken tanınması üzerine kuruludur. Bu yaklaşım, nihai cerrahi veya girişimsel kanama kontrolüne ulaşıncaya kadar hastaya güvenli bir köprü sağlamayı hedefler.