



4th INTERNATIONAL CONGRESS ON EMERGENCY MEDICINE



EXPLORE ENDLESS
HORIZONS IN
EMERGENCY MEDICINE

1st INTERNATIONAL SONOCRITIC CONGRESS ON EMERGENCY MEDICINE

SONO-EM

23-26 OCTOBER 2024
RIXOS SUNGATE HOTEL, ANTALYA/TÜRKİYE



Scientific Secretariat
Turkish Emergency Medicine Foundation

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Ofyon İş Merkezi A Blok Kat:3
Üsküdar / İstanbul
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Dr. Kimberly Herard (United States of America)
Dr. Joginder Solanki (England)
Prof. Hamid Reza Hatamabadi (Iran)



25 Ekim 2024, PERŞEMBE

Saat	CUMHURİYET SALONU	101. YIL SALONU	İSTİKLAL SALONU	19 MAYIS SALONU	23 NİSAN SALONU	18 MART SALONU	30 AĞUSTOS SALONU	HÜRRİYET SALONU
09:00 - 09:45	Geriatric Emergency Care	Açık Oturum	Resüsitasyon Kalitesini Nasıl Arttırabiliriz?	Sözlü Bildiriler	Sözlü Bildiriler	Sözlü Bildiriler	Sözlü Bildiriler	Let's Start: POCUS Power
	Moderators:	Oturum Başkanları:	Oturum Başkanları:	Oturum Başkanları:	Oturum Başkanı:	Oturum Başkanları:	Oturum Başkanları:	Moderators:
	Prof. Dr. Mehmet Akif Karamercan	Prof. Dr. Ahmet Demircan	Prof. Dr. Kenan Ahmet Türkdoğan	Doç. Dr. Mücahit Kaççı	Doç. Dr. Emin Uysal	Doç. Dr. Yavuz Otal	Doç. Dr. Rezan Karaali	Hamid Shokoohi, MD.
	Joginder Solanki, MD	Prof. Dr. Serkan Emre Eroğlu	Prof. Dr. Muhammed Evvah Karakılıç	Uzm. Dr. Onur İncealtın	S-008 The Forgotten Disease: Lemierre's Syndrome	Uzm. Dr. Merve Yazla	Doç. Dr. Burak Demirci	Assoc. Prof. Dr Adnan Yamaoğlu
	-Challenges in the Emergency Management of Geriatric Trauma Patients	Prof. Dr. Selahattin Kıyan	- CPR Kalitesinin Monitörizasyonu : Fizyolojik Parametreler	S-001 Retinal Artery Occlusion and Hyperbaric Oxygen Therapy	S-009 A Rare Case in the Emergency Department: Superior Vena Cava Syndrome	S-015 SCIWORA	S-022 Atrial Fibrillation Due to Carbon Monoxide Intoxication	Basic Physics, Knobology, and Image Optimization hints Hamid Shokoohi
	Prof. Dr. Mehmet Akif Karamercan	Prof. Dr. Emine Emektar	Prof. Dr. Afşin Emre Kayıpmaz	S-002 Mesenteric Ischemia or STEMI? A Case of Diagnostic and Therapeutic Challenges	S-010 Hidden threat: Intracranial Dermoid Cyst Rupture in an Emergency Setting Mimicking Respiratory Infection	S-016 Should it be reviewed?	S-023 Stevens-Johnson Syndrome Associated with Diltiazem	Transthoracic Cardiac Ultrasound Hamid Shokoohi
	-Do We Need a Geriatric Emergency Department?	Doç. Dr. Semih Korkut		S-003 Unexpected etiology in a pediatric patient presenting with a fall: Homocysteinemia	S-011 Thrombolytic therapy in an acute ischemic stroke patient with a history of subarachnoid hemorrhage	S-017 Case report: renal pelvis rupture due to stone	S-024 A Rare Reason of Severe Hypokalemia: Thyrotoxic Periodic Paralysis	Transthoracic Cardiac Ultrasound Live Demo Assoc. Prof. Dr Adnan Yamaoğlu
	Prof. Dr. Nurşah Başol	Doç. Dr. Özcan Yavaş	-Vazopressör Desteği ve Sıvı Resüsitasyonu	S-004 A Case of Cerebellar Arteriovenous Fistula Presenting with Cardiac Arrest	S-012 A Rare Presentation of Abducens Nerve Palsy in Herpes Zoster Ophthalmicus	S-018 Pseudo-Bartter Syndrome Presenting in a Patient with a Gastric Balloon: Case Report	S-025 Is Associated the Splenic Infarct with Acute Hepatitis?	
	-Management of Unstable Older Patients and Shared Decision-Making in Acute Frailty	Doç. Dr. Avni Uygur Seyhan	Prof. Dr. Ahmet Sebe	S-005 A complication of paracentesis: Intramuscular Hematoma Due to Inferior Epigastric Artery Injury	S-013 Spontaneous Triceps Hematoma and Radial Nerve Impairment due to Warfarin Use	S-019 A case of stroke presenting with bilateral sudden hearing loss	S-026 A difficult diagnosis in the emergency department; Emphysematous pyelonephritis	



	Joginder Solanki, MD	Dr. Öğr. Üyesi Mehmet Burak Öztop		S-006 The Cause of Life-Threatening Gastrointestinal Bleeding: Aortoesophageal Fistula S-007 Spontaneous Intracranial Hemorrhage in a Patient with Kasabach-Merritt Syndrome: A Case Report	S-014 The Dangerous Complication of Spondylodiscitis: A Case of Psoas Abscess	S-020 Recurrent penile fracture in a patient on anticoagulation therapy S-021 Uncommon Presentation of Abdominal Hematoma Following Persistent Cough: A Case Study S-223 Cardiac Toxicity and Death Caused by Muriatic Acid Ingestion	S-027 Hypertension due to scorpion sting during pregnancy S-028 Rhabdomyolysis and Mc Mahon Classification	
09:45 - 10:00	KAHVE ARASI							
10:00 - 10:45	Toxicology Moderators: Doç. Dr. Aynur Şahin Badria Alhatali, MD. -EXTRIP Guidelines Use in Emergency Toxin Removals: Updates and Pitfalls Joshua D. King, MD.	Kritik Hasta Yönetimi Oturum Başkanları: Prof. Dr. Mine Gürsac Çelik Prof. Dr. Mehtap Bulut - Tanımlanamamış Her Şok Sepsis Değildir: Tanımlanamamış Hipotansiyon-Şok Hastasına Yaklaşım Algoritmaları Prof. Dr. Okhan Akdur	İşimiz Suçumuz Olmasın Oturum Başkanları: Öner Bozan Doç. Dr. Emre Gökçen -Hastane Dışında Hastaya Müdahale Sorumluluklarımız Nelerdir Dr. Öğr. Üyesi Melih Çamcı	Sözlü Bildiriler Oturum Başkanları: Prof. Dr. Cemil Kavalcı Dr. Öğr. Üyesi Emine Kadioğlu S-029 An important etiology in Meige syndrome; Drug use S-030 Iatrogenic systemic botulism: An extreme case and a review of diagnosis and treatment S-031 Abdominal aortic aneurysm rupture in a patient who presented to the emergency department with left testicular pain	Sözlü Bildiriler Oturum Başkanları: Prof. Dr. Suat Zengin Doç. Dr. Eren Usul S-036 Myocardial infarction and complete AV block in a trauma patient Simge Topçu, Serkan BİLGİN S-037 A Case of Allergy with Severe Course: Stevens-Johnson Syndrome After Novalgin Intake S-038 The Importance of Physical Examination in the Emergency Department: Spontaneous Pneumomediastinum	Sözlü Bildiriler Oturum Başkanları: Doç. Dr. Burak Katipoğlu Uzm. Dr. Merve Kayabaş Unutmaz S-043 The injury after falling an object on a body: PARAPLEGIA S-044 Posterior knee dislocation, concomitant popliteal artery injury and peroneal nerve damage: A rare case report S-045 Case Report Of Traumatic Aortic Dissection After A Traffic Accident	Sözlü Bildiriler Oturum Başkanları: Dr. Öğr. Üyesi Ahmet Öztürk Uzm. Dr. Hakan Güner S-050 Hyperglycemic Emergencies: A Systematic Approach With A Specific Case Report S-051 Difficult and Unexpected Diagnosis: Emphysematous Cystitis S-052 Endophthalmitis and Severe Keratitis: A Complication of Contact Lenses	Critical Views: IVC and Lung Ultrasound in Practice Moderators: Mojtaba Chardoli, MD. Assoc. Prof. Dr. Ramazan Güven -IVC and Intravascular Volume Assessment and Live Demo Assoc. Prof. Dr. Hüseyin Acar Mojtaba Chardoli, MD.



Badria Alhatali, MD.	Prof. Dr. Ayhan Sarıtaş	Avukat Şerife Büşra Ümit Işık	S-032 Locked in Syndrome	S-039 Pneumothorax, Pneumomediastinum, and Esophageal Rupture in a Patient Presenting with Acute Chest Pain and Dyspnea: A Rare Case	S-046 A rare case of genetic inheritance: Moya moya Disease	S-053 Bone marrow suppression due to colchicine poisoning	-Lung Ultrasound
-The Toxic Toddler: Overdoses in Pediatric Population	-GiS Kanamada Endoskopi Ne Zaman?	-Malpraktis Davalarında Ne Durumdayız? Davalar Nasıl Sonuçlanıyor?	S-033 A rare cause of lung fibrosis: Bleomycin	S-040 Case Report Of Diaphragmatic Rupture After Trauma	S-047 Acute-Onset Paraplegia Due to Leriche Syndrome: A Case Report	S-054 CHLORINE GAS EXPOSURE	Andrew Liteplo, MD.
Stephanie Hon, MD.	Uzm. Dr. Necati Akkaya	Av. Dr. Mehmet Esat Ferhatlar	S-034 More Dangerous than Anaphylaxis: Kounis Syndrome	S-041 An Interesting Case: Pacemaker Electrode Rupture	S-048 Prosthetic Mitral Valve Thrombosis Diagnosed by Bedside Echocardiography	S-055 Isolated Laryngeal Edema After Blunt Neck Trauma	-Lung Ultrasound Live Demo
			S-035 History of Aortic Dissection With SVO Appearance	S-042 Acute Angle-Closure Glaucoma Developing During the Treatment of an Asthma Attack: A Case Report	S-049 Does Singing Carry a Risk of Death?; Pneumomediastinum	S-056 Patient applied with paralysis was discharged from ED on foot	Assoc. Prof. Dr Adnan Yamanoğlu

10:45 - 11:30

UYDU SEMPOZYUMU

Gaz, Şişkinlik, Karın Ağrısı gibi Fonksiyonel Bağırsak Hastalıkları Semptomlarına Özel Tedavi: Pinaveryum

Konuşmacı: Prof. Dr. Serhat Bor

Moderatör: Prof. Dr. Özgür Söğüt, Assoc. Prof. Dr. Ramazan Güven

11:30 - 12:15	Toxicology Panel Discussion	Acil Tıpta Yapay Zeka Giyilebilir Teknolojiler	Acil Tıpta Dezavantajlı Gruplar ve Tıbbi Sosyal Hizmet Müdahaleleri	Sözlü Bildiriler	Sözlü Bildiriler	Sözlü Bildiriler	Sözlü Bildiriler	Pain Control with the help of USG in the Emergency Department
	-The efficiency and impact of Poison centers and Medical/Clinical Toxicology in Emergency Health Services	Oturum Başkanları: Doç. Dr. Şükrü Yorulmaz Doç. Dr. Tamer ÇolaK	Oturum Başkanları: Prof. Dr. Halil Kaya Uzm. Dr. Orhan Koç	Oturum Başkanları: Doç. Dr. Umut Payza Dr. Öğr. Üyesi Osman Sezer Çınaroğlu	Oturum Başkanları: Dr. Öğr. Üyesi Emine Kadioğlu Doç. Dr. Birdal Güllüpinar	Oturum Başkanları: Prof. Dr. Ethem Acar Doç. Dr. Kemal Gökçek	Oturum Başkanları: Prof. Dr. Hakan Oğuztürk Dr. Öğr. Üyesi Erhan Altunbaş	Moderators: Doç. Dr. Serkan Bilgin Doç. Dr. Akkan Avcı
	Speakers:	- Eğitim ve Simülasyon: Yapay Zeka ile Acil Durum Personelinin Eğitimi ve Becerilerinin Geliştirilmesi	Şiddet mağduru kadına yaklaşım (istenmeyen gebelik-çocuk)	S-057 A case of subcutaneous emphysema after dental extraction	S-064 Importance of Further Investigation: A Case Report of Infective Endocarditis	S-072 Extremely Rare Situation: Wrong Intubation - Correct Result	S-079 Spontaneous Angiomyolipoma Hemorrhage: Wunderlich Syndrome; A Rare Cause of Abdominal Pain	-Upper extremity nerve blocks with USG



Doç. Dr. Aynur Şahin	Dr. Öğr. Üyesi Kamil Kayayurt	Doç. Dr. Fatih Güneysu	S-058 An Atypical Presentation of Pulmonary Embolism Mimicking Neurological Symptoms in an Elderly Patient	S-065 CVA or TTP?	S-073 A Rare Complication in an Immunosuppressed Patient with Chickenpox: Varicella Zoster Virus Encephalitis	S-080 Postpartum Dyspnea and Cardiomyopathy Following Cesarean Section: A Rare Case	Doç. Dr. Akkan Avcı
Badria Alhatali, MD.	-Derin Öğrenme ve Makine Öğrenimi Yöntemlerinin Acil Tıptaki Rolü	-İhmal-İstismar Mağduru Çocuk (Şiddet-Adölesan Gebelik-İstenmeyen Çocuk)	S-059 Aneurysmal Inferior Vena Cava: A Rare Case	S-066 A life threatening emergency: Acute aortic injury	S-074 Leptospirosis	S-082 SCOMBROID POISONING; HISTAMINE TOXICITY	-Lower extremity nerve blocks with USG
Stephanie Hon, MD.	Uzm. Dr. İbrahim Sarbay	Doç. Dr. Melike Tekindal	S-060 Myocardial Infarction Triggered by Post-Traumatic Stress Factors	S-067 Exitus Cause in a Patient Presenting with Abdominal Pain: Leriche Syndrome	S-075 Psychogenic Polydipsia: The Double-Digit Sodium Phenomenon	S-083 Subdural Hematoma Following Spinal Anesthesia for Caesarean Section Case	Doç. Dr. Serkan Bilgin
Joshua D. King, MD.	Yapay Zeka ile Hızlı Müdahale: Acil Durumlarda Otomatik Tanı Sistemlerinin Geleceği ve Etkisi	-Yaşlılıkta İhmal ve İstismar Vakaları- Dikkat Edilecek Noktalar	S-061 A Case Report of Bupropion Intoxication Leading to Status Epilepticus	S-068 Doctor's Dilemma	S-076 Catamenial Pneumothorax: A Rare and Recurrent Emergency	S-084 Aggressive Approach in the Treatment of Diabetic Ketoacidosis	
Duaa Allawati, MD.	Dr. Öğr. Üyesi Fatih Ahmet Kahraman	Uzm. Dr. Mehmet Gökhan Kaya	S-062 Diagnostic Dilemma: A Simple Gastrointestinal Infection or Life-Threatening Mesenteric Ischemia? S-063 Acute Presentation of Facial Redness and Dyspnea in a 58-Year-Old Female with Newly Diagnosed Acute Cancer and Superior Vena Cava Syndrome	S-069 Fat Embolism Presenting with Respiratory Failure After Plastic Surgery: A Case Report	S-077 Atrial Fibrillation with Complete Atrioventricular Block (Regularized AF)	S-085 Chronic Subdural Hematoma In A Patient Presenting With Hypoglycemia	-Peripheral nerve blocks with USG
12:15 - 12:30	KAHVE ARASI						
12:30 - 13:15	UYDU SEMPOZYUMU <i>Varfarin ve DOAC Kullanan Hastada COFACT ile 15 dakikada Kanama Kontrolü: COFACT'ın Tedavideki Yeri</i> Konuşmacı: Prof. Dr. Özgür Söğüt 						
13:15 - 14:00	ÖĞLE YEMEĞİ						



14:00 - 14:45

UYDU SEMPOZYUMU

Yarım Asırlık Molekülün Acil Serüveni: İbuprofen

Konuşmacı: Doç. Dr. Serkan Doğan

BERKO İLAÇ
"sağlıklı yarınlar"

14:45 - 15:00

KAHVE ARASI

15:00 - 15:45	Trauma Unleashed: Pioneering Practices and Protocols Moderators: Assoc. Prof. Anna Yaffee, MD. Kimberly Herard, MD. -Advances With POCUS in Trauma Kimberly Herard, MD. -Crises Resource Management in Trauma Patient Care and Trauma Education Sarfraz Ahmed, MD.	Arafta Kalan Hastalar Oturum Başkanları: Prof. Dr. Ayhan Sarıtaş Prof. Dr. Hayriye Gönüllü -Portal Ven Trombozu Yönetiminde Ne Zaman, Kim Müdahale Etmeli? Doç. Dr. Gülşen Çığsar -Acil Servise Başvuran Diyabetik Ayak Hangi Servise Yatmalı? Nelere Dikkat Edelim? Doç. Dr. Yunus Karaca	Acil Servis Çalışma Koşullarının Bireysel Etkileri Oturum Başkanları: Prof. Dr. Cemil Kavalcı Prof. Dr. Afşin Emre Kayıpmaz -Gece Nöbeti Tükenmişliğe Sebep Olur Mu? Uzm. Dr. Onur İncealtın -Kariyerimin Ortasındayım : Tamam Mı? Devam Mı Doç. Dr. Süha Serin	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Ahmet Demircan Dr. Öğr. Üyesi Ahmet Kayalı S-087 Splenic abscess rupture S-088 A case of fornier gangrene, an uncommon emergency diagnosis S-089 Neonatal Food Aspiration and Respiratory Distress: Rapid Intervention and Treatment Process S-090 Acute Cyanide Poisoning with Rare Pulmonary and Renal Complications	Sözlü Bildiriler Oturumu Oturum Başkanları: Assoc. Prof. Dr. Hüseyin Acar Uzm. Dr. Efe Kanter S-094 Hemodynamic Collapse Management in Metformin Overdose : The Role of ECMO S-095 Melkersson–Rosenthal Syndrome: An Unusual Cause of Facial Paralysis S-096 Case Report: Subclavian Artery Thrombosis: An Overlooked Cause of Arm Pain and Neurological Symptoms S-097 A Case of Multiple Thrombotic Pathologies Presenting with Acute Mesenteric Ischemia, Pulmonary Embolism, and Acute Cerebrovascular Accident (SVO)	Sözlü Bildiriler Oturumu Oturum Başkanları: Doç. Dr. Mücahit Kapçı Doç. Dr. Yeşim İşler S-102 URETHRAL FISTULA EXTENDING TO THE PRESSURE SORE S-103 The Dark Side of Dermal Fillers: A Case of Ischemic Stroke After Lip Augmentation S-104 INTRAUTERINE OR EXTRAUTERINE? : A CASE OF ECTOPIC PREGNANCY RUPTURE S-106 LERİCHE SYNDROME	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Murat Yücel Dr. Öğr. Üyesi Ali İhsan Kılıcı S-101 Muscle relaxant? Which one? S-105 Patient Presenting to the Emergency Department with Minor Trauma and Tetraparesis: Central Cord Syndrome S-108 RARE TRAUMA; Bilateral adrenal hematoma	Ultrasound in Action: Vascular Imaging, Shock Management and Nerve Blocks Moderators: Nour Al Jalbut, MD. Assoc. Prof. Dr Adnan Yamanoğlu -Vascular Ultrasound-Technique for Central, Peripheral, and Arterial Lines and Live Demo Nour Al Jalbut, MD. -Ultrasound Approach to Shock and Live Demo Mojtaba Chardoli, MD.
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	-Updates in Trauma Management in Special Populations Assoc. Prof. Anna Yaffee, MD.	- Retroperitoneal Hematom Kim Takip Etmeli Uzm. Dr. Nuray Aslan	-Bir Takımın Üyesi Olmak Dr. Öğr. Üyesi Osman Sezer Çınaroğlu	S-092 Bilateral giant adrenal endothelial cyst hemorrhage S-093 A Rare Dermatological Emergency: Acute Generalized Exanthematous Pustulosis(AGE P)	S-098 Superior Mesenteric Artery (Wilkie's) Syndrome: A Case Report S-099 disseminated intravascular coagulation S-100 A difficult differential diagnosis of chest pain in young patients: apical hypertrophic cardiomyopathy	S-107 Substance Use-Associated Cerebral Infarction in a Young Patient S-109 A Rare Diagnosis in Scrotal Pain: Testicular Fracture S-110 A RARE CASE OF SPONTANEOUS INTRAMUSCULAR HEMATOMA: MUSCULUS TRANSVERSUS ABDOMINIS S-113 A RARE COMPLICATION OF ICD: TWIDDLER SYNDROME S-114 A Clinically Unlikely Case of Pulmonary Embolism: Pulmonary Embolism Caused by Hyperhomocysteinemia	S-111 Peripartum cardiomyopathy S-112 Acute pericarditis following tetanus vaccination during pregnancy	-Ultrasound-Guided Nerve Block and Live Demo Mojtaba Chardoli, MD.
15:45 - 16:00	KAHVE ARASI							
16:00 - 16:45	From the Field to the ER: Seamless Trauma Care Moderators: Doç. Dr. Ali Alemdar Irfan Husain, MD.	Acil Tıp Top 5 Literatür Oturum Başkanları: Prof. Dr. Hakan Oğuztürk Prof. Dr. Mustafa Burak Seyhan	Acil Tıpta Wellness Oturum Başkanları: Prof. Dr. Figen Coşkun Doç. Dr. Sevilay Vural	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Okhan Akdur Uzm. Dr. Adem Az	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Abdulkadir Gündüz Prof. Dr. Havva Şahin Kavaklı	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Sadık Girişgin Dr. Öğr. Üyesi Osman Sezer Çınaroğlu	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Cahfer Güloğlu Doç. Dr. Serhat Koyuncu	Important details in emergency USG Moderators: Assoc. Prof. Dr. Hüseyin Acar Assoc. Prof. Dr. Serkan Doğan



- Standardization of Trauma Management in Worldwide: Differences and Similarities between trauma guidelines Doç. Dr. Nihat Müjdat Hökenek	-Acil Tıpta 2023 Yılı Top 5 Literatür Doç. Dr. Yücel Yüzbaşıoğlu	-Acil Tıp Sanatı Prof. Dr. Figen Coşkun	S-115 A Rare Diagnosis in the Emergency Department: Traumatic Retinal Detachment S-116 SPONTAN QUADRICEPS TENDON RUPTURE	S-122 Refractory Hypoglycemia S-123 A Rare Condition In Pregnancy: Pulmonary Oedema Due To Peripartum Cardiomyopathy	S-130 How Much Salt We Are Consuming? A Severe Mephedrone Intoxication in a Young Male Managed Cautiously in the Emergency Department S-131 ANALYSIS OF ADULT TRAUMA PATIENTS TRANSPORTED FROM THE FIELD BY HELICOPTER AMBULANCE	S-136 Investigation of The Effect of Electrocardiography Findings on 30-Day Mortality in Patients Applied to the Emergency Department for Syncope S-137 Can the Systemic Inflammatory Index be used as a Mortality Indicator in Patients Diagnosed with Acute Ischemic Stroke in the Emergency Department?	-Emergency Obstetric Ultrasound Dr. Öğr. Üyesi Serkan Şahin
-Whole Blood Administration in Prehospital Trauma Patients Irfan Husain, MD.	-Acil Tıpta 2024 Yılı Top 5 Literatür Prof. Dr. Şükrü Gürbüz	-Acil Tıpta Fiziksel Sağlığımız Doç. Dr. Nazlı Görmeli Kurt	S-117 The Danger Hidden in the Emergency Room: Weil's Disease	S-124 Getting high and going dark	S-132 The incidence of hyponatremia in geriatric patients presenting to the emergency department with headache	S-138 INVESTIGATION OF THE DIAGNOSTIC VALUE OF ULTRASOUND IN THE DETECTION OF FOREARM FRACTURES IN PEDIATRIC AGE POPULATION REGISTERING TO THE EMERGENCY DEPARTMENT	-Can diaphragm thickness measured by USG predict the need for NIMV? Doç. Dr. Sinem Doğruyol
-Protocols for Panscan in Trauma Management	-2025 Yılında Merakla Beklenen Top 5 Çalışma	-Acil Tıp ve Mental Sağlığımız	S-118 Occipital Neuralgia, a Rare Cause of Herpes Zoster Infection: Case Report	S-125 A hypocalcemia patient presenting to the emergency department with near syncope	S-133 Evaluation of the effects of concomitant alcohol positivity on the characteristics and severity of injury in geriatric trauma patients	S-139 The impact of alcohol intoxication on mortality in patients with traumatic intracranial hemorrhage: a retrospective study	-Pitfalls in the RUSH protocol



	Prof. Dr. Oktay Eray	Doç. Dr. Ahmet Burak Erdem	Dr. Öğr. Üyesi Erkut Erol					Assoc. Prof. Dr. Metin Yadigaroglu
				S-119 A new cause of Minoca Syndrome: Thyrotoxicosis	S-126 Central cord syndrome secondary to trauma	S-134 Evaluation of the frequency and results of tomography use in patients diagnosed with renal colic in the emergency department	S-140 The Relationship Between Intraparenchymal Hemorrhage and QTc Interval	
				S-120 Traumatic Vertebral Artery Dissection and Ischemic Stroke in a Young Patient: A Case Report and Management Approach	S-127 Severe Plasmodium falciparum and HIV coinfection in an 18-year-old Sub-Saharan African migrant.	S-135 Emergency Department CT Scan Utilization and Findings in Geriatric Patients Presenting with Non-Traumatic Headache	S-141 A Retrospective Analysis of Patients Diagnosed with Acute Pancreatitis Following Presentation to the Emergency Department with Abdominal Pain	
				S-121 HEADACHE THAT WON'T GO AWAY: VIRAL ENCEPHALITIS	S-128 Superior mesenteric artery (SMA) syndrome		S-142 GENERAL OVERVIEW OF GUNSHOT INJURIES IN KARS PROVINCE	
16:45 - 17:00	KAHVE ARASI							
17:00 - 17:45	Out of Hospital Cardiac Arrest Moderators: Khalid Basir Qu MD. Doç. Dr. Yavuz Yiğit	Bilimsel Makale Süreçlerinin Yönetimi Oturum Başkanları: Prof. Dr. Murat Yücel Doç. Dr. Abuzer Coşkun	Hayat Kurtaran Acil Servis Uygulamaları Oturum Başkanları: Prof. Dr. Sadık Girişgin Doç. Dr. Levent Albayrak	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Suat Zengin Doç. Dr. Kemal Gökçek	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Hakan Şevki Eren Doç. Dr. Serkan Bilgin	Sözlü Bildiriler Oturumu Oturum Başkanları: Doç. Dr. Tamer Çolak Prof. Dr. Zeynep Karakaya	Sözlü Bildiriler Oturumu Oturum Başkanları: Prof. Dr. Şükrü Gürbüz Doç. Dr. Süha Serin	
	-Out of Hospital Cardiac Arrest Registries Doç. Dr. Yavuz Yiğit	-Dergi Seçimi ve Makale Gönderimi: Acil Tıp Alanında Stratejiler Doç. Dr. Bahadır Çağlar	-Torakotomi ve Toraks Tüpü Uzm. Dr. Sercan Özlü	S-143 Falls from heights in and around the city of Kars in Turkey.	S-149 Usability of artificial neural networks in mortality prediction of patients diagnosed with sepsis after emergency department admission	S-155 Benzodiazepine poisoning: diverse treatment approaches and clinical protocols worldwide	S-161 Evaluation of the Effects of Mesenchymal Stem Cell Transplantation on Brain, Kidney and Bone Tissue Healing in Experimental Rat Multiple Trauma Model	

-Surviving the Unexpected: Insights and Updates on Out-of-Hospital Cardiac Arrest Shahzad Anjum, MD.	-Makale Değerlendirme Süreci: Yazar ve Editör Bakış Açıları Doç. Dr. Mert Özen	-Trakeostomi-Krikotirotomi-Retrograd Entübasyon Doç. Dr. Ramazan Köylü	S-144 Effect of the Leuko-Glycemic Index in Predicting Prognosis in Diabetic and Non-diabetic Patients with Acute Pulmonary Embolism S-145 Preliminary study: A retrospective analysis of burn presentations in children under five years of age	S-150 Comparison of the effectiveness of clinical scoring systems in predicting 30-day mortality in patients presenting to the emergency department with acute heart failure: A prospective observational study S-151 Impact of Early Analgesia and Sedation Levels on Clinical Outcomes in Mechanically Ventilated Patients in the Emergency Department and ICU	S-160 Effectiveness and Safety of Intradermal Sterile Water Injection for Pain Management in Renal Colic: A pilot study S-162 Choose your side: SII or CURB65 in geriatrics patients with pneumonia S-163 Evaluation of survey and outcome of patients with severe acidosis in the emergency department: A retrospective cohort study
-Preparedness and Protocol: Hospital Readiness for Out-of-Hospital Cardiac Patients Khalid Basir Qu MD.	-Etkili Referans Yönetimi ve Kaynak Belirtme: Acil Tıp Makalelerinde Stratejiler Doç. Dr. Öner Bozan	-Santral Venöz Katater-İntraossoöz Girişim Uygulamaları Doç. Dr. İlker Akbaş	S-146 Evaluation of emergency department admission of patients with dental diseases: a retrospective analysis of data from a single hospital in the region S-147 Can Bedside Ultrasonography Evaluate the Hemodynamic Effects of Non-Invasive Mechanical Ventilation?	S-152 The Use of Lactate Level/Serum Albumin Ratio as a Mortality Marker in Patients Presenting to the Emergency Department with Acute Heart Failure S-153 A 10-year retrospective review of laboratory tests in the evaluation of patients with psychiatric symptoms admitted to the emergency department	S-164 Assessing Professional Commitment Among Medical Interns Post-Emergency Medicine Internship S-165 Investigation of Dynamic ETCO2 Values with Side Stream in the Treatment of Pneumothorax: A Prospective Study



S-148 COMPARISON OF LACTATE APROCALCITONIN ELEVATIONS WITH BLOOD CULTURE GROWTH IN PATIENTS WITH SUSPECTED SEPSIS IN EMERGENCY DEPARTMENT

S-154 How can we increase treatment compliance in patients whose urine cultures are taken in the emergency department?

S-156 Predicting Clinical Severity and Re-admissions in Patients with COPD Exacerbations Using Near Infrared Spectroscopy (NIRS) in the Emergency Department

S-157 A comparison of manual pulse palpation, carotid 2D ultrasonography, and end-tidal CO₂ to detect the return of spontaneous circulation

S-158 Comparison of salient features and discriminative features learning methods in electrocardiography training of emergency medicine residents

S-159 Comparison of DECAF and NEWS2 Scores for Mortality and ICU Admission Prediction in Acute COPD Exacerbations



Saat	CUMHURİYET SALONU	101. YIL SALONU	İSTİKLAL SALONU	19 MAYIS SALONU	23 NİSAN SALONU	18 MART SALONU	30 AĞUSTOS SALONU	HÜRRİYET SALONU
09:00 - 09:45	EU4Health Programmes Moderators: Prof. Dr. Merih Çetinkaya Dr. Tuba Uğraş Cerebral Oximetry Monitoring and Safeguarding the Brain of Infants Prof. Dr. Merih Çetinkaya	Travma ve Acil Cerrahi Oturum Başkanları: Doç. Dr. Ali Alemdar Prof. Dr. Ali Kocataş Travmada Mortalite Skorları Doç. Dr. Suna Eraybar Atmaca	Acil Serviste Ağrı ile Başa Çıkabiliyor muyuz? Oturum Başkanları: Prof. Dr. Yunsur Çevik Doç. Dr. Mesut Demir İlaç Kullanmaktan Korkuyor muyuz? Prof. Dr. Nurdan Acar	Sözlü Bildiriler Oturum Başkanları: Prof. Dr. Latif Duran Doç. Dr. Cihan Bedel S-220 Can BUN/Albumin Ratio Be Used As A Predictive Parameter For Mortality In A Pneumonia Patient? S-221 EVALUATION OF THE EFFECT OF D-DIMER/TROPONIN RATIO AND ALVEOLO-ARTERIAL GRADIENT ON PROGNOSIS IN PATIENTS DIAGNOSIS OF PULMONARY EMBOLISM IN THE EMERGENCY DEPARTMENT	Sözlü Bildiriler Oturum Başkanları: Prof. Dr. Abdulkadir Gündüz Uzm. Dr. Sedat Özbay S-172 Evaluation of hemoglobin and eosinophil count in patients receiving thrombolytic treatment S-173 Determination of the appropriate location of needle decompression application in the treatment of tension pneumothorax using bedside ultrasonography in healthy volunteers with a body mass index over 30	Sözlü Bildiriler Oturum Başkanları: Doç. Dr. Mehmet Oğuzhan Ay Doç. Dr. Yeşim İşler S-178 CTP, MELD, MELD/Na SCORES AS MORTALITY PREDICTORS IN CIRRHOSIS RELATED EMERGENCY COMPLICATIONS S-179 Are hydatid cyst cases increasing? An analysis of city hospital applications	Sözlü Bildiriler Oturum Başkanları: Doç. Dr. Ramazan Köylü Dr. Öğr. Üyesi Nurdan Y. Şahin S-185 Preliminary Analysis of Hyperglycemic Crises in Patients with Serum Glucose Levels Above 1000 mg/dL S-186 Evaluation of lactate clearance in patients admitted to the emergency department due to carbon monoxide poisoning.	POCUS Focus Moderators: Hamid Reza Hatamabadi, MD. Gracie Moldanado ,MD. FAST Pitfalls and FASH Exam and Live Demo Gracie Moldanado ,MD.



			S-081 Hospitalization or discharge status of patients under observation	S-174 Retrospective Study on The Impact Of Neurovascular Calcifications On Increasing Intracranial Hemorrhage Risk In Acute Ischemic Stroke Patients Treated With Thrombolytic Therapy In The Emergency Department	S-180 Evaluation of Patients With Penis Fracture: Our Clinical Experiences	S-187 Experiences of the Black Sea coastal district hospital in the case of summer drowning	Hamid Reza Hatamabadi, MD.
LIFEFORCE - A Complete Educational Approach for Resuscitation Pre-training of 6-10 Years-old School Children in Europe	Travmatik Arrestler Kurtulabilir!!	Ağrı Yönetiminde Yeni Yaklaşımlar: Geriatrik ve Pediatrik Popülasyon	S-071 Missed Traumatic Non-Contiguous Secondary Spinal Fractures	S-175 Evaluation of pediatric intoxication	S-181 Percutaneous balloon kyphoplasty and vertebroplasty in acute, osteoporotic, and pathological vertebral fractures: a retrospective analysis of 150 patients.	S-188 Comparison of Vibrating MESH nebulizer versus Jet nebulizers in COPD Exacerbation patients, Randomized, single-blind Clinical Trial	CO & Quantitative LV Systolic Function Assessment and Live Demo
Theodoros Kalyvas, MD.	Doç. Dr. Mustafa Korkut	Dr. Öğr. Üyesi Bilgehan Demir		S-176 Treatment Management of Patients Diagnosed with Bladder Injury Secondary to Pelvic Fractures	S-182 Analysis of Steven Johnson and Toxic Epidermal Necrolysis Cases Monitored in Dermatology Clinic	S-189 Cross-sectional analysis of patients with successful resuscitation in cardiopulmonary arrest (ROSC): a retrospective, observational descriptive study	Mojtaba Chardoli, MD.
				S-177 Retrospective Analysis of Patients Aged 65 and Over Who Presented to the Emergency Department with Gastrointestinal System Bleeding and Had Endoscopy or Colonoscopy	S-183 Can pleth variability index (PVI) values measured in patients presenting to the emergency department with COPD exacerbation predict clinical severity?		



	Save Life: Designing Introductory First Aid Modules Using Innovative Online Modules	Travmatik Akut Batında Cerrahi Zamanlama (TACS)	Acil Serviste Sinir Bloğu Uygulamaları					CO & Quantitative LV Systolic Function Assessment Live Demo
	Gergana Ivanova, MD.	Doç. Dr. Bülent Çalık	Dr. Öğr. Üyesi Gülşen Öztürk Örmeci			S-184 Evaluation of patients presenting to the emergency department with ocular complaints		Assoc. Prof. Dr Adnan Yamanoğlu
09:45 - 10:00	KAHVE ARASI							
10:00 - 10:45	Artificial Intelligence and Telemedicine	Bağışlanan Her Organ Filizlenen Bir Candır!	Kadın Doğum Acilleri	Sözlü Bildiriler	Sözlü Bildiriler	Sözlü Bildiriler Oturumu	Sözlü Bildiriler Oturumu	Mastering the Echo: Advanced Echocardiography Techniques
	Moderators:	Oturum Başkanları:	Oturum Başkanları:	Oturum Başkanları:	Oturum Başkanları:	Oturum Başkanları:	Oturum Başkanları:	Moderators:
	Uzm. Dr. Gökhan Eyüpoğlu	Doç. Dr. Ertuğrul Altınbilek	Prof. Dr. Mehmet Özgür Erdoğan	Dr. Öğr. Üyesi Ahmet Kayalı	Prof. Dr. Birdal Yıldırım	Prof. Dr. Mehtap Bulut	Prof. Dr. Ethem Acar	Hamid Shokoohi, MD.
	Salvatore di Somma, MD.	Doç. Dr. Serhat Koyuncu	Doç. Dr. Hakan Hakkoymaz	Dr. Öğr. Üyesi Ali İhsan Kilci	Uzm. Dr. Ayşe Sümeyye Arı	Doç. Dr. Turgay Yılmaz Kılıç	Prof. Dr. Afşin Emre Kayıpmaz	Assoc. Prof. Dr. Ramazan Güven
	Telemedicine Technology in Healthcare	Organ Bağışında Acil Tıp Uzmanının Kritik Konumu?	Gebe Hastalara Acil Servisten Yazılan Reçetelerde Önemli Noktalar	S-190 Malpractice Cases Related to Nephrolithiasis in Emergency Departments: An Analysis Based on Court of Cassation Rulings	S-196 A RETROSPECTIVE ANALYSIS OF 16 AORTIC DISSECTION CASES	S-250 RELATIONSHIP BETWEEN NIHSS SCORE, AF AND OXIDIZED LIPOPROTEIN IN ISCHEMIC STROKE CASES	S-208 Investigation of Treatment and Complications of Patients Presenting with Elevated INR Level	Regional Wall Abnormality and Live Demo
	Salvatore di Somma, MD.	Dr. Öğr. Üyesi Safa Dönmez	Doç. Dr. Mustafa Avcı	S-191 Blood Pressure Variability in a Pig Model of Intracerebral Hemorrhage, Preliminary Study	S-197 Treatment management of patients diagnosed with bladder injury secondary to pelvic fractures	S-203 Confirmation Of Chest Compression Location In Cardiopulmonary Resuscitation With Transoesophageal Echocardiography	S-209 Inflammatory Indexes in Emergency Patients with Hypertensive Pulmonary Edema: A Critical Insight	Assoc. Prof. Dr. Adnan Yamanoğlu
								Assoc. Prof. Dr. Ramazan Güven



Artificial Intelligence Integration Into Emergency Medicine Clinical Studies	Türkiye'de Organ Nakli ve Bağışında Neredeyiz, Ne Yapıyoruz?	Gebe Resüsitasyonu Önemli Detaylar (4 Dakika)	S-192 Assessing Bleeding in Patients: Evaluating the Role of Artificial Intelligence				
Hjalmar R. Bouma, MD.	Ulusal Koordinasyon Sistemi (UKS)	Doç. Dr. Muhammed Semih Gedik	S-193 Platelet/calcium Ratio is a Predictor of Multivessel Disease in Patients Evaluated as Unstable Angina Pectoris in the Emergency Department.	S-198 Comparison of Carotid Artery Doppler Flow Time and Inferior Vena Cava İndeks Evaluation with Forrest Classification in Upper Gastrointestinal System Bleeding	S-204 Fasudil Shields Against Sepsis-Induced Kidney Injury by Targeting STAT-3 and NLRP-3 in Rats	S-210 Relationship between eosinophil count and mortality in emergency hemodialysis patients	Tissue Doppler and Diastolic Dysfunction
	Dr. Rahmi BAYKAN		S-194 Preliminary Analysis of Severe Hyponatremia in the ED: Demographic and Outcome Characteristics				Nour Al Jalbut, MD.
Current Artificial Intelligence Applications in Health	Organ Nakli Koordinatörleri Derneği Başkan Yardımcısı	Gebe Hastalara Trombolitik Tedavi Hangi Durumda, Ne Zaman?	S-195 Comparison of Analgesic Efficacy of Dexametopfen and Ibuprofen in Pain Management of Rib Fractures in Emergency Department: A Prospective Randomized Single-Blind Controlled Clinical Study	S-199 The Impact of Initial Antibiotic Dose Timing on 30-Day Mortality in Febrile Neutropenia Patients on Admission to the Emergency Department: Retrospective Clinical Research	S-205 Ultrasonography c Evaluation of Optic Nerve Sheath Diameter Change Before and After Thrombolytic Treatment in Acute Ischemic Stroke	S-211 The Prognostic Value of Scoring Systems and Ultrasonography c Assessment in Critically Ill Patients in the Emergency Department	Assoc. Prof. Dr. Ramazan Güven
Doç. Dr. Hüseyin Üvet		Doç. Dr. Hüseyin Avni Demir	S-207 The Effects of Virtual Reality Use on Patient Pain And Anxiety During Arterial Blood Gas Collection: A Randomized Controlled Trial				



Donation after Circulatory Death (DCD)				S-200 Analysis of emergency bleeding parameters, clinical follow-up, and treatment processes of patients hospitalized with suspected upper gastrointestinal bleeding	S-206 The Role of the HALP Score in Indicating the Severity of Acute Appendicitis and Predicting Clinical Prognosis	S-212 Statistical Review of Logistic Regression Analysis Performed in Articles Examining Mortality-related Factors in Trauma Patients	RV Dysfunction
Doç. Dr. Ejder Saylav Bora				S-201 EVALUATING THE NON-INFECTIOUS CAUSES OF HEMOPTYSIS IN PATIENTS PRESENTED TO THE EMERGENCY DEPARTMENT	SS-222 Vasospasm following aneurysmal subarachnoid hemorrhage	S-213 "Evaluation of the effects of laboratory values, oxidation parameters, scoring systems and ventricular diameter measurements on prognosis in patients diagnosed with acute pulmonary embolism in the emergency department"	Hamid Shokoohi, MD. Assoc. Prof. Dr Adnan Yamanoğlu
				S-202 RETROSPECTIVE ANALYSIS OF 40 PNEUMOTHORAX CASES			

KAHVE ARASI

Critical Decisions: Navigating High-Stakes Situations

Mezuniyet Öncesi ve Sonrası Güncel, Etkin Eğitim Modelleri

Anne Olmam Kariyer Yapmama Engel Değil: Acil Tıpta Kadın Hekim Olmak

Sözlü Bildiriler

Sözlü Bildiriler

New USG Fields in the Emergency Department

Moderators:

Oturum Başkanları:

Oturum Başkanları:

Oturum Başkanları:

Oturum Başkanları:

Moderators:



Marija Vavlukis, MD.

Prof. Dr. Okhan Akdur

Prof. Dr. Gülhan Kurtoğlu Çelik

Doç. Dr. Abdullah Osman

Uzm. Dr. Bilge Akdemir

Prof. Dr. Mehmet Akif Karamercan

Doç. Dr. Nihat Müjdat Hökenek

Prof. Dr. Ahmet Sebe

Prof. Dr. Nurdan Acar

Doç. Dr. Öznur Köylü

Asst. Prof. Sümeyye Çakmak

Assoc. Prof. Dr. Hüseyin Cahit Halhallı

Cardiac Biomarkers in the Emergency Department

Mezuniyet Öncesi Ters-yüz Edilmiş Eğitim Modeli Kullanılabilir mi?

Akademik Tıpta Kadınların Liderliği

S-214 EVALUATION OF THE EFFECT OF WELLNESS ACTIVITIES APPLIED BY EMERGENCY MEDICAL ASSISTANTS ON BURNOUT LEVEL AND JOB SATISFACTION

S-166 Comparison of Analgesic Efficacy of Ibuprofen and Dexketoprofen in Pain Management of Long Bone Fractures: A Prospective, Randomized, Double-Blind Study

Transcranial USG and Its use in the Emergency Department

Marija Vavlukis, MD.

Prof. Dr. Serkan Emre Eroğlu

Doç. Dr. Songül Araç

S-215 DETECTION OF ACUTE INTRACRANIAL PATHOLOGIES IN PATIENTS ADMITTED TO EMERGENCY DEPARTMENT WITH HEADACHE

S-167 Evaluation of patients diagnosed with pediatric supracondylar humerus fractures in the emergency department of a tertiary hospital

Assoc. Prof. Dr. Serkan Doğan



New Diagnostic Methods in Aortic Dissection	Mezuniyet Öncesi ve Sonrası Öğrenme Analitikleri ve Yapay Zeka Araçlarının Kullanımı	Acil Serviste Kadın Sağlık Çalışanlarına Yönelik Şiddet				Tricuspid Valve Pathologies in the Emergency Department
Khikmat Anvarov, MD.	Dr. Öğr. Üyesi Fatma Selman	Dr. Öğr. Üyesi Tuba Betül Ümit	S-216 DETECTION OF PATHOLOGY IN BRAIN IMAGING IN PEDIATRIC PATIENTS ADMITTED TO EMERGENCY DEPARTMENT WITH HEAD TRAUMA	S-168 Comparison of The Effect on Survival of Cardiopulmonary Resuscitation Applied with Manual or Mechanical Compression Device		Bestami Köse, MD.
The Influence of the Magnitude of Sanitary Losses on the Organization of Medical Support for the Troops (Experience of War in Afghanistan)	Problem Temelli Öğrenme Yöntemleri Web Tabanlı da Olabilir mi?	Acil Servis Uzmanlığı ve Kadın Olmak	S-217 Is It Possible to Detect ROSC During Chest Compression? Evaluation of a Novel Method: Carotid Artery Compression Ultrasound	S-169 Evaluation of The Prognostic Value of Systemic Inflammation Indexes in Patients Diagnosed with Acute Coronary Syndrome in the Emergency Department		Use of TEE in Resuscitation
Oleg Shekera, MD.	Prof. Dr. Mustafa Agah Tekindal	Doç. Dr. Rezan Karaali				Asst. Prof. Dr. Mehmet Göktuğ Efgan



S-218 The Relationship of Modified Glasgow Prognostic Score with Mortality in Pneumonia

S-170 Assessment of Coronary Artery Dominance on Prognosis and Mortality in Patients with Anterior ST-Elevation Myocardial Infarction

S-219 The relationship between heavy metal levels and genotoxic damage in end-stage renal disease patients undergoing and not undergoing hemodialysis.

S-171 The role of perfusion indices in the clinical management of carbon monoxide poisoning

11:45 - 12:00 KAHVE ARASI

12:00 - 12:45 UYDU SEMPOZYUMU

Acil Servislerde PPI Kullanımı: Güncel Yaklaşımlar ve Klinik Sonuçlar

Konuşmacı: Doç. Dr. Ertuğrul Altınbilek



12:45 - 13:15 ÖĞLE YEMEĞİ

14:00 - 14:45 UYDU SEMPOZYUMU

Kas İskelet Sistemi Ağrılarında Feniramidol'ün Yeri

Konuşmacılar: Doç. Dr. İsmail Tayfur, Prof. Dr. Barkın Berk



14:45 - 15:00 KAHVE ARASI



15:00 -
15:45

Disaster Medicine	Neyin Var Ufaklık? Pediatrik Acillere Yaklaşım	Acil Serviste Yoğun Bakım Uygulamaları	COLLABORATIVE ADVANCED TRAUMA CARE: TRAUMA TEAM LEADERSHIP	Acil Servislerde IV. Terapiler Oturumu		Pulse and Eyes of Life: POCUS
Moderators:	Oturum Başkanları:	Oturum Başkanı:	WORKSHOP	Oturum Başkanı:		Moderators:
Doç. Dr. İsmail Tayfur	Doç. Dr. Seda Dağar	Doç. Dr. Ejder Saylav Bora	(13:00-17:00)	Doç. Dr. Ertuğrul Altınbilek		Hamid Shokoohi, MD.
Dr. Öğr. Üyesi Perihan Şimşek	Doç. Dr. Sinan Yıldırım					Hamid Reza Hatamabadi, MD.
		Uyanık / Crush Entübasyon ne zaman kime?	SCHEDULE	I.V Terapilerin Güncel Tedavi Yaklaşımları ve Geleceği		
Hazard, Risk and Crisis Communication in the Field and in Disasters	Babygram Gerekli mi?	Doç. Dr. Sevilay Vural	Overview/Introduction and teambuilding	Doç. Dr. Togay Evrin		Ultrasound in Cardiac Arrest
Uzm. Dr. Mehmet Güllüoğlu	Doç. Dr. Serdar Özdemir					Hamid Reza Hatamabadi, MD.
		Acil Serviste Takip Edilen Yoğun Bakım İhtiyacı Olan Hastanın İlk 24 Saatlik Yönetimi: Neler dikkat edelim?	Trauma patient simulations with rotating roles as leaders			



WHO's Latest Studies on Disaster Relief and Risk Reduction

Pediatric İleri Yaşam Desteğinde Önemli Detaylar

Dr. Öğr. Üyesi
Ertuğrul Altuğ

Mayumi Kako, MD.

Doç. Dr. Umut Payza

Mass casualty incident simulation/debrief

Mekanik Ventilatör Sürekli Ötüyor ne Yapmalıyım?

Disaster Risk Reduction Tatives for Public Health and Beyondlni

Nöbetle Gelen Çocuk: Nelere Dikkat Edelim?

Dr. Öğr. Üyesi
Ahmet Öztürk

Roundtable discussion on barriers and solutions to teamwork and leadership in trauma patient care, crisis resource management in trauma, and next steps in institutional trauma team implementation

Benjamin J Ryan, MD.

Dr. Öğr. Üyesi
Hüseyin Ergenç

INSTRUCTORS:

How Climate Change is Accelerating Disasters: Unprecedented Frequency and Severity

Su hayattır: Çocuklarda dehidratasyon u yaklaşım

Dr. Anna Yaffee

Ultrasound in ARDS and Pulmonary Edema

Assoc. Prof. Dr
Adnan Yamanoğlu

Ocular Ultrasound

Hamid Shokoohi, MD.



	Rahman Moshur, MD.	Doç. Dr. Birdal Güllüpinar		Dr. Akkan Avcı				
				Dr. Sarfaraz Ahmed				
				Dr. Oktay Eray				
				Dr. Ertugrul Altug				
				Dr. Gokhan Eyupoglu				
				Dr. Gulsen Ozturk Ormeci				
				Dr. Nihat Hokenek				
15:45 - 16:00	KAHVE ARASI							
16:00 - 16:45	Tactical Medicine	Acil Serviste İleri Girişimsel Teknikler	Biyoistatistik ve Acil Tıp					Abdominal USG in the Emergency Department
	Moderators:	Oturum Başkanları:	Oturum Başkanları:					Moderators:
	Yahya A. Acar, MD	Prof. Dr. Şevki Hakan Eren	Prof. Dr. Özgür Söğüt					Assoc. Prof. Dr. Serkan Doğan
	Prof. Dr Erdem Çevik	Doç. Dr. Mustafa Çalık	Doç. Dr. Özcan Yavaş					Doç. Dr. Akkan Avcı
	TCCC 2024 Updates	REBOA-ECMO Acil Serviste Kullanılabilir mi?	Epidemiyoloji ve Biyoistatistik: Acil Tıp Çalışmalarında Veri Analizi Yaklaşımlar					This Intestine is not Working: Ileus
	Yahya A. Acar, MD	Uzm. Dr. Ufuk Yıldız	Prof. Dr. Ferhan Elmalı					Asst. Prof. Sümeyye Çakmak
	Whole Blood Transfusion	IV ve Transkutan Pacemaker Uygulamaları	Biyoistatistik Okuryazarlığı: Acil Deneyimleri					Does BFT Broken USG Help? Hydronephrosis?



Rodolfo Rivas,
PA.

Dr. Öğr. Üyesi
Ramiz Yazıcı

Prof. Dr. Mustafa
Agah Tekindal

**Non
Compressible
Hemorrhage
Control**

**Skopik
İşlemlerin Acil
Serviste Aktif
Kullanımı
Mümkün mü?**

**İstatistiksel
Hipotez Testleri:
Acil Durum
Verilerinin
Değerlendirilme
si**

M. Austin
Johnson, MD

Doç. Dr. Abuzer
Özkan

Asst. Prof. Dr.
Mehmet Göktuğ
Efgan

Nalan Gökçe Çelebi
Yamanoğlu, MD.

**Acute App
Important Details**

Assoc. Prof. Dr. Ömer
Salt

KAHVE ARASI

**Management
of Critically Ill
Patients**

**Uzman
Atışması**

Faz Çalışmaları

Moderators:

**Oturum
Başkanları:**

**Oturum
Başkanları:**

Doç. Dr. Akkan
Avcı

Prof. Dr. Recep
Dursun

Prof. Dr. Ferhan
Elmalı

Doç. Dr.
Gökhan Ceylan

Doç. Dr. Dilay
Satılmış

Prof. Dr. Ahmet
Baydın

**New Era of
Automation:
Closed-loop
Oxygen
Controllers**

**Metanol
Zehirlenmesind
e Diyaliz
Devamlı mı
Aralıklı mı?**

**Klinik
Araştırmaya
Başlamaya
Hazır mıyız?**

Doç. Dr.
Gökhan Ceylan

Uzm. Dr. Kaan
Yusufoğlu

Doç. Dr. Seval
Komut

Uzm. Dr. Emine
Sarcan

**The Added
Value of
Controlling
the Full
Respiratory
Cycle in
Difficult
Airways and
Vulnerable
Lungs**

**Klinik
Araştırmalarda
Tasarım ve
Metodoloji**

Marco Klaassen, MD.	RSİ'de Önce hangisi? Sedatifler mi? NMBA'lar mı?	Doç. Dr. Hilmi Erdem Sümbül			
	Uzm. Dr. Meral Yıldırım				
Alternative Devices for Oropharyngeal Airway	Uzm. Dr. Gözde Canan Yavaş	Klinik Araştırmalarda Araştırmacı Olmak			
Amer Shaikh, MD.		Doç. Dr. Sinan Karacabey			
	Akut İskemik İnmede Trombolitik mi? Trombektomi mi?				
	Uzm. Dr. Orhan Eroğlu	Acil Tıp ve Deneysel Çalışmalar			
	Uzm. Dr. Şebnem Zeynep Eke Kurt	Doç. Dr. Ejder Saylav Bora			
	LBBB'li Hastalarda Sgarbossa Kriterleri mi, Barcelona Kriterleri mi?				
	Uzm. Dr. Eren Sert				
	Uzm. Dr. Ayşe Sümeyye Arı				



ORAL ABSTRACTS



Ref No: 1037
Pub No: P-017

Pneumomediastinum After Blunt Trauma

Kağan Solmazipek¹, Tuba Betül Ümit¹

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Kağan Solmazipek / University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Background and aim: Pneumomediastinum (PM) is the condition of free air images in the mediastinal region, either spontaneously or due to an underlying cause such as trauma or surgical procedure.

Case: A 20-year-old female patient presented to the emergency department (ED) with the complaint of falling down the stairs after near syncope. The patient's vital signs at the admission were: TA 115/80 mmHg, Pulse: 112 beats/min, sPO2: 98. During the examination, GCS 15 was observed in an oriented and cooperative manner. No obvious lesion was seen on primary examination. Tenderness was detected in the right and left shoulders and tenderness in the thoracolumbar vertebra. The patient's ECG showed sinus tachycardia. Normal sinus rhythm was observed in the follow-up control ECG. No acute pathology was detected in the patient's laboratory tests. Acute neurological events and acute cardiovascular pathologies were excluded in the laboratory tests, radiography and tomography taken for the etiology of syncope and trauma pathologies. Pneumomediastinum was detected in the patient's thorax CT. Under close monitoring, respiratory rate was 11 per minute and the sPO2 was 98 in room air. The patient was consulted with the General Surgery clinic. The General Surgery clinic interned the patient for close follow-up. During the patient's ward follow-up, it was observed that the pneumomediastinum area had spontaneously regressed and there was no need for further intervention, and the patient was discharged.

Conclusions: Pneumomediastinum is a condition that we encounter more frequently in major thoracic traumas, but is also rarely observed in isolated traumas or low-energy traumas, it can also occur spontaneously. It usually has a good prognosis, but mediastinitis is one of the fatal complications of PM. Although it is not a disease with a high mortality rate, PM is an important disease that should be kept in mind in differential diagnoses in the ED.

Keywords: Pneumomediastinum, Trauma



Ref No: 1121
Pub No: P-095

Case Report: When Insulin as an Antidote ?

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Health Sciences University, Bagcilar Training and Research Hospital, Emergency Department, Istanbul, Turkey Health Sciences University, Bagcilar Training and Research Hospital, Emergency Department, Istanbul, Turkey / Rümeysa Seren

Background and aim: Overdose of Beta blockers and calcium channel blockers used in the treatment of tachyarrhythmias can lead to fatal consequences due to cardiovascular side effects. The toxicity of these agents is characterized by sinus bradycardia, varying degrees of AV block, and hypotension and shock. This study presents a case of complete AV block following the ingestion of high doses of beta blockers and calcium channel blockers for suicidal purposes.

Case: A 20-year-old female ingested 100mg of Beloc (10 tablets) and 60mg of Diltiazem (24 tablets) 2 hours prior to presentation, with the intent of suicide. She reported epigastric pain and generalized numbness. Upon arrival, her vital signs were as follows: blood pressure 72/40mmHg, SpO2 95% and heart rate 40 bpm. ECG(electrocardiography) revealed complete AV block. Blood glucose was 238 mg/dL. The Glasgow Coma Scale score was 15, with the patient being neurologically intact, oriented, and cooperative. Her medical history was unremarkable. In response to the observed complete AV block on ECG, 1 mg of atropine was administered, resulting in a return to sinus rhythm. The heart rate increased to 73 bpm. A 10% calcium gluconate infusion (10 mL over 20 minutes) was initiated, followed by a continuous infusion at a rate of 30mL/h. Due to a blood glucose level of 197mg/dL, a bolus of 25grams of dextrose was given. Given a potassium level of 3.5mEq/L, 60 units of crystalline insulin were administered intravenously as a bolus, followed by an infusion of 60 units/h. The patient was transferred to the toxicology unit, than the patient was discharged with full recovery.

Conclusions: High-dose insulin therapy is recommended in the management of such intoxications. This case highlights the efficacy of high-dose insulin in the treatment of beta blocker and calcium channel blocker toxicity.

Keywords: Beta blocker, calcium channel blocker, insulin, intoxications, emergency department



Ref No: 1206
Pub No: S-110

A RARE CASE OF SPONTANEOUS INTRAMUSCULAR HEMATOMA: MUSCULUS TRANSVERSUS ABDOMINIS

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Background and aim: These muscle hematomas can be traumatic or spontaneous. Traumatic muscle hematomas, although painful for the patient, can be managed with conservative rest and non-narcotic painkillers. In contrast, spontaneous muscle hematomas are mostly located in the lumbar region of the abdomen and have the potential to develop into life-threatening situations. It is a relatively rare condition, often associated with abdominal wall trauma or anticoagulation. We report a 51-year-old male patient with a rare spontaneous hematoma of the transversus abdominis muscle.

Case: A 51-year-old man presented with complaints of right flank pain for several days and palpable swelling in the same area. There was no history of recent trauma, and his symptoms started after severe coughing a few days ago. He also had regular use of acetylsalicylic acid 100 mg once a day and one piece. There was a 3x4 cm ecchymosis in the right lumbar region and there was tenderness in this area with palpation. Contrast-enhanced computed tomography imaging of the abdomen revealed a "70 mm hematoma and hyperdense lesion area in the transverse abdominis muscle in the right lower quadrant and fluid soft tissue density in the neighborhood". Antiplatelet therapy was discontinued and the patient was hospitalized in the general surgery ward for follow-up. There was no significant decrease in hemoglobin in follow-up and no clinical changes were observed and the patient was discharged with outpatient clinic control recommendations.

Conclusions: Trauma is the common etiology of traumatic muscle hematomas. The presentation of spontaneous muscle hematomas are more variable and most commonly present with localized and diffuse pain in the abdomen. It is essential to ask about the history of anticoagulant use when a muscle hematoma is suspected, especially in the geriatric population. Although complications related to ASA use are rare, it should be kept in mind that patients may have atypical bleeding sites.

Keywords: intamuscular hematoma

Ref No: 1333
Pub No: P-096

Protruding Thrombosis in the Ascending Aorta with norologic symptoms

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¹BURSA SEHIR HASTANESI

SULENUR SEVER / BURSA SEHIR HASTANESI

Background and aim: Thrombosis in the ascending aorta are often associated with aneurysms or atherosclerotic lesions and have a high risk of causing secondary thrombotic events. In this case, we aimed to demonstrate the approach to a case of thrombus causing ischaemic stroke.

Case: A 46-year-old man was referred to our hospital for a with neurologic symptoms, describes a speech disorder. The patient without dysarthria speaks slowly and intermittently. There are meaningless words. Neurologic examination revealed no limb weakness. The 4 extremities were spontaneously mobile with no loss of muscle strength and no laterizing findings. There was no known disease in his medical history. He was on oral antibiotics for pneumonia. Laboratory tests were unremarkable except d-dimer 2.52 ugFEU/ml CRP 77 mg/dl. The patient was consulted to neurology with diffusion restriction in the left frontoparietal region on diffusion MR imaging. LMWH and ASA treatment started. CT angiography scan revealed a thrombus in the right atrium and proximal part of the ascending aorta adjacent to the valve. After ECO showed suspicious thrombus and flap image in the ascending aorta. There was no dissection in the vascular structures. Transesophageal echocardiography (TEE) was planned by cardiology and he was interned to coronary intensive care unit.

Thrombosis in ascending aorta



A contrast computed tomography showed thrombosis in ascending aorta



Conclusions: Thrombosis in the ascending aorta are most commonly diagnosed with an embolic event and embolisation of the upper extremities is frequently observed. In our case, we observed ischaemic stroke secondary to ascending aortic thrombus. It should be kept in mind that neurological events seen in patients with no known risk factors, no history of embolism and no cardiac history may be secondary to an underlying vascular event. Detection of thrombus in this case greatly influenced the treatment strategies and clinical course.

Keywords: thrombosis



Ref No: 1375
Pub No: S-122

Refractory Hypoglycemia

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Background and aim: Hypoglisemia is a rare complication associated with the Hodgkin's lymphoma. There are few cases reported in the literature, but the exact pathophysiology causing this phenomenon is not clearly understood.

Case: We present a case of 49-year-old female patient with known asthma, hypothyroidism, and nodular sclerosing Hodgkin lymphoma. The patient was diagnosed with lymphoma in 2020, underwent chemotherapy, and received an autologous stem cell transplant. In 2023, due to relapse, brentuximab was initiated. One of the side effects of brentuximab is an increase in blood sugar levels. Pregabalin was started to manage neuropathy caused by brentuximab. The patient was brought in by 112 (emergency services) with complaints of syncope and fatigue. On the patient's arrival, GCS: 13, blood pressure: 140/80, pulse: 80, and oxygen saturation on room air: 99% were observed. A blood glucose test was performed, and a reading of 20 mg/dL was obtained, after which 20% dextrose was administered iv bolus. The patient was started on a 10% dextrose infusion for follow-up. When the dextrose infusion was discontinued, the fingertip blood glucose level was 23, and the infusion was resumed. In addition, 1 mg of subcutaneous glucagon was administered to the patient during follow-up. The patient was consulted with internal medicine and anesthesia. An indication for intensive care was determined, but due to a lack of available space in our hospital, the patient was transferred to an external facility.

Conclusions: A rare complication associated with the Hodgkin's lymphoma is the occurrence of persistent or recurrent hypoglycemia. Although few cases have been reported in the literature, describing its pathophysiology to be multifactorial, it is difficult to determine the exact cause.

Keywords: hypoglisemia, Hodgkin's lymphoma



Ref No: 1388
Pub No: S-077

Atrial Fibrillation with Complete Atrioventricular Block (Regularized AF)

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¹Izmir Katip Celebi University Faculty of Medicine Department of Emergency Medicine

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Background and aim: In patients with a known diagnosis of Atrial Fibrillation (AF), the development of complete Atrioventricular (AV) block results in equal R-R intervals, accompanied by the absence of identifiable P waves. This creates an ECG rhythm characterized by equal R-R intervals, often referred to as a nodal or idioventricular rhythm. This condition is described as AF with complete AV block or more commonly termed as "Regularized AF."

Case: A 67-year-old female patient presented to the emergency department with complaints of nausea, vomiting, and epigastric pain that began in the morning. Vital signs were normal. The patient's medical history included diabetes mellitus (DM), hypertension (HT), and atrial fibrillation (AF). The ECG obtained is shown in the Figure 1 below. The patient's initial ECG was interpreted as AF with complete AV block, also referred to as Regularized AF. The follow-up ECG, obtained after the patient experienced palpitations, is shown in Figure 2. The follow-up ECG was interpreted as AF with rapid ventricular response, inferolateral ST depression, T-wave inversion, and a heart rate of 130 bpm. Heart rate control was achieved through intravenous treatment with the patient's own beta-blocker medication. During cardiology consultation, the patient developed AF with complete AV block once more, which spontaneously reverted to AF rhythm. The patient was admitted to the coronary intensive care unit for further investigation of the cause of AV block and for potential pacemaker implantation if necessary.

Figure 1

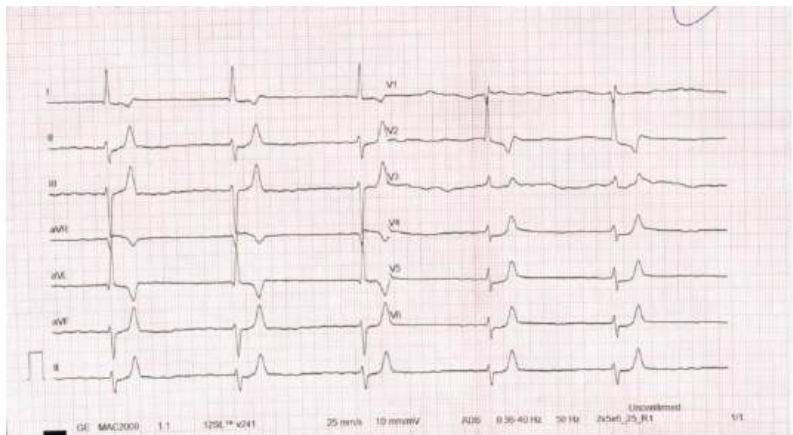
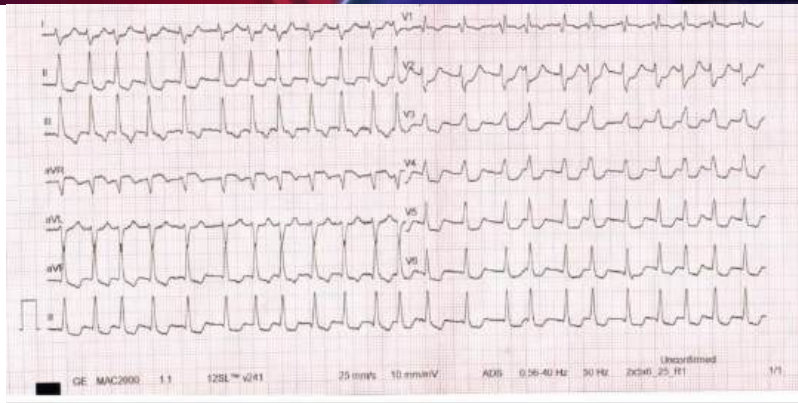


Figure 2



Conclusions: In a patient with a diagnosis of atrial fibrillation, the presence of a slow and regular ventricular rate on the ECG should raise suspicion for complete AV block. In the presence of atrial fibrillation, the R-R intervals should be carefully examined to diagnose complete AV block (1). If the R-R intervals are regular, the possibility of "AF with complete AV block" or "Regularized AF" should definitely be considered.

Keywords: Atrial Fibrillation, Complete AV Block, ECG, Emergency department



Ref No: 1392

Pub No: S-007

Spontaneous Intracranial Hemorrhage in a Patient with Kasabach-Merritt Syndrome: A Case Report

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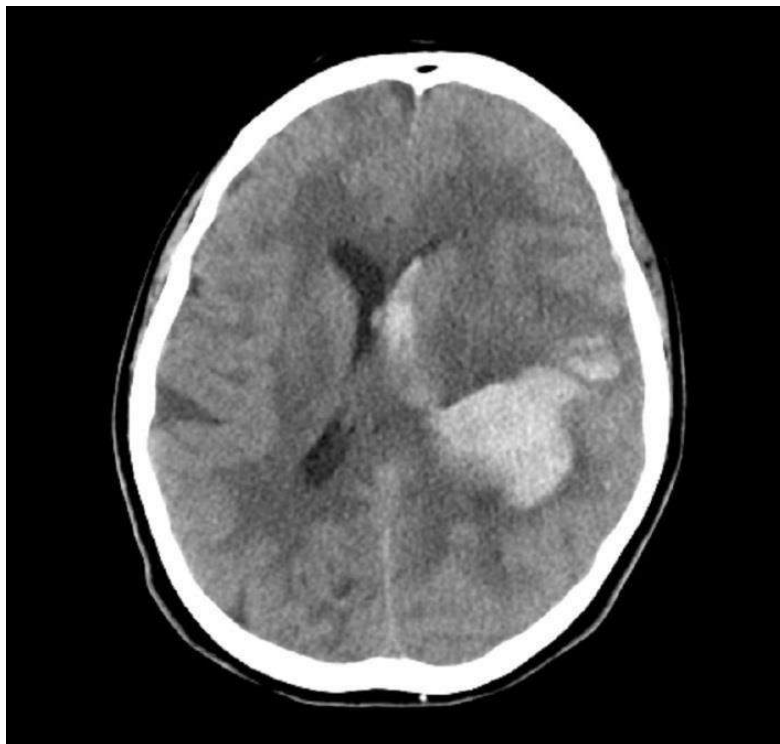
Background and aim: Kasabach-Merritt syndrome is a rare clinical condition characterized by a rapidly growing hemangioma, thrombocytopenia, and coagulopathy. While it typically presents in infancy, it can occasionally be observed in later life. This case involves a 21-year-old female with congenital Kasabach-Merritt syndrome who presented to the emergency department with right-hand numbness, speech disturbance, and altered consciousness, subsequently developing spontaneous intracranial hemorrhage.

Case: A 21-year-old female with a known history of congenital Kasabach-Merritt syndrome and a large hemangioma measuring 15x8 cm on the right shoulder was brought to the emergency department with complaints of speech disturbance and right-hand numbness, which had begun a few hours prior to admission. Her level of consciousness progressively deteriorated. A CT scan of the brain revealed an 8x4 cm hematoma in the left parieto-occipital region, extending into the ventricle and compressing the left lateral ventricle. Emergency treatment included an infusion of Nicardipine at 5 mg/hour and administration of 1g/kg Mannitol. Following neurosurgical and neurological consultations, the patient was admitted to the intensive care unit. The following day, she underwent decompression surgery and was later discharged in good condition after postoperative observation.

Figure 1



Figure 2





Conclusions: Patients with Kasabach-Merritt syndrome are at significant risk for severe neurological complications due to vascular anomalies and coagulopathy. The development of spontaneous intracranial hemorrhage, as seen in this case, underscores the importance of close monitoring and a multidisciplinary approach in the management of these patients. This case highlights the critical need for vigilant observation and prompt intervention in patients with Kasabach-Merritt syndrome to prevent life-threatening complications.

Keywords: Kasabach-Merritt syndrome, thrombocytopenia, spontaneous intracranial hemorrhage



Ref No: 1415
Pub No: P-026

Not a chemical weapon; CBRN incident in the hospital: hydrochloric acid (chemical biological radiological nuclear threats)

Nurettin portakal¹, Koray kadam¹, Orhan delice¹

¹şehir hastanesi acil tıp bilim dalı erzurum

Nurettin portakal / şehir hastanesi acil tıp bilim dalı erzurum

Background and aim: INTRODUCTION: Chemical, biological, radiological and nuclear injuries (CBRN) can also occur in the hospital. Chemicals used in hospital laboratories, especially pose a risk. Accidents that occurred during the transportation, storage and usage of chemicals that used in hospital laboratories can cause serious injuries.OBJECTIVE: Evaluation of destruction of the gas emitted by breaking of the glass container that contains a chemical substance used in the pathology laboratory during transportation and precautions that taken by the hospital management for this event.

Case: CASE: While some glass containers from the hospital store in the basement were being taken to the pathology laboratory in the 2nd floor, one of the containers was dropped and broken in the basement exit as a result of an accident. The officer informed the unit of CBRN and moved away by the reason of shortness of breath and eye tearing when a dense cloud of gas spread around from broken container. We took control of the basement entrance and exit immediately as a CBRN unit. We examined the broken container with wearing type C personal protective clothes and filter mask and learned the container had hydrochloric acid in it. Firstly basement was ventilated and hydrochloric acid in the floor was absorbed by the absorbent pets. Afterwards the floor was washed with plenty of detergent water. The officer who affected by the chemical gas was treated in the emergency medicine department.

Conclusions: CONCLUSION: Storing, using and transporting the chemicals used in hospitals should carried out carefully. Cleaning methods of the chemicals used in hospitals must be known and should be added to the hospital disaster plan.

Keywords: CBRN, hydrochloric acid, decontamination

Ref No: 1438
Pub No: P-113

A Rare Cause of Sudden Shortness of Breath

Süeda Yalçın¹, Tutku Soydal¹, Alper Bugay¹, Mervan Türk¹, Rümeysa Seren¹, Betül Çam¹, Burak Demirci¹

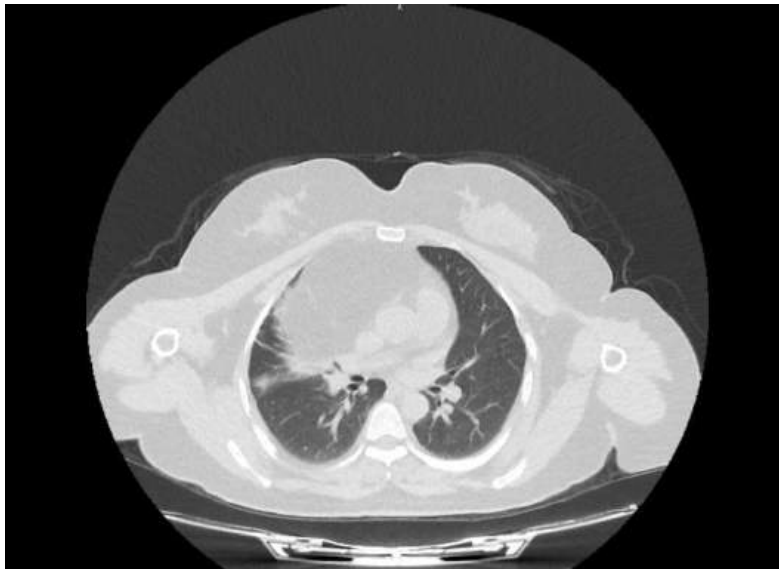
¹Health Sciences University, Bağcılar Training and Research Hospital, Emergency Department

Mervan Türk / Health Sciences University, Bağcılar Training and Research Hospital, Emergency Department

Background and aim: Hiatal hernia, one of the diaphragmatic hernias, usually involves stomach tissue. We present a case of mediastinal fatty tissue herniation, confirmed by plain radiography, computed tomography(CT) and magnetic resonance imaging(MRI), in a 34-year-old female patient who complained of shortness of breath. Esophageal hiatal hernias are generally observed when the stomach and intestinal loops herniate into the mediastinum. A rare type of these intrathoracic hernias that can be confused with lipomatous tumor is the form containing omental fatty tissue.

Case: We present a 34-year-old female patient who was admitted to our hospital due to increasing shortness of breath and chest pain. Lung sounds were coarsened in the right lung of the patients. There were no significant findings in other physical examination and laboratory data. There was a shadow appearance in the right lung on the patient's chest x-ray. The large intrathoracic mass was not recognized previously. On CT, a hypodense area with clear borders was observed, starting from the right side of the heart and extending to the base of the right lung. In her echocardiographic evaluation, EF was found to be 60 and within normal limits. An echodense appearance suggestive of a fat pad was observed in the anterior part of the right ventricle. MRI were ordered for detailed diagnosis. MRI showed intra-abdominal fat tissue herniating from the defect in the anterior part of the diaphragm to the mediastinum in the thorax and abdomen sections. The surfaces between the fatty tissues and the pericardium are clear, and no lipomatous lesion of the pericardium is observed.

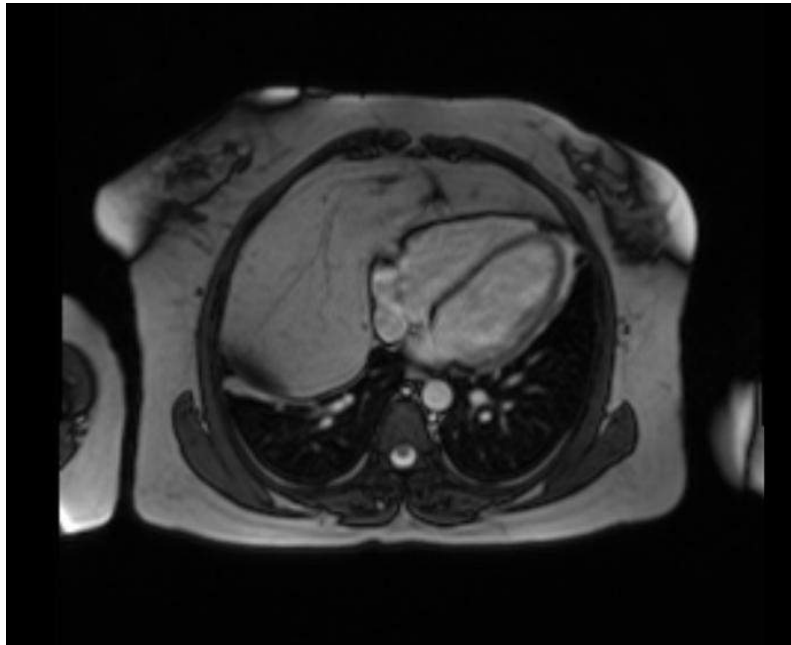
Mediastinal Mass





CT imaging

Mediastinal Mass



MRI

Mediastinal Mass



Chest-x ray

Conclusions: The pathogenesis of intrathoracic lipid mass herniation cannot be fully explained due to its rarity. Differential diagnosis of a mediastinal lipid mass as an intrathoracic omental herniation may enable fewer invasive procedures.

Keywords: mediastinal mass, hiatal herniation, emergency department, shortness of breath

Ref No: 1453

Pub No: S-086

Visual Disturbances Following Infective Endocarditis

Merve Sena Kayacan¹, Gökhan Eyüpoğlu¹, Ramazan Güven¹

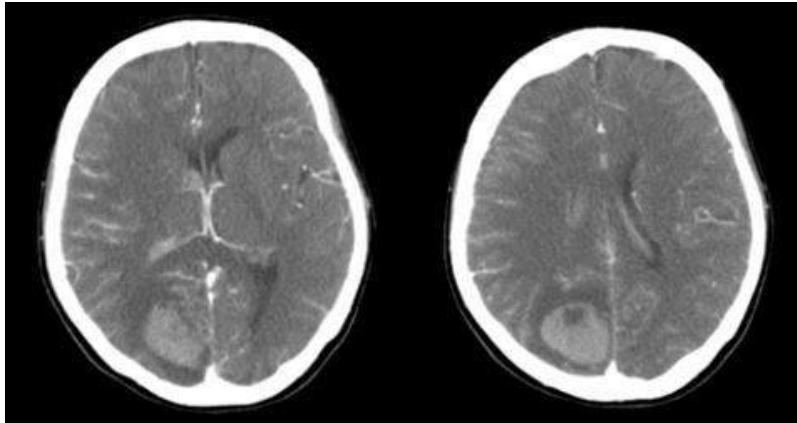
¹Health Sciences University Başakşehir Çam and Sakura City Hospital SUAM, Department of Emergency Medicine, Istanbul/Türkiye

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Background and aim: In developed countries, the incidence of infective endocarditis (IE) ranges from 3 to 9 cases per 100,000 per year. Infective endocarditis can be complicated by intracranial bleeding (ICB) due to various pathological mechanisms. In this case we described a 21-year-old female patient with infective endocarditis secondary to splenic parenchymal infarcts initially presented with abdominal pain and chest pain. She was later referred after experiencing severe sudden-onset headache and vision loss. CT scan of the brain showed A 5 cm hematoma was observed in the right occipital region. A focal parenchymal contusion was detected in the right temporal lobe lateral region. Following treatment with cefepime and vancomycin for endocarditis, and a reduction in the size of the hematoma, the patient was transferred to the planned hospital for valve surgery.

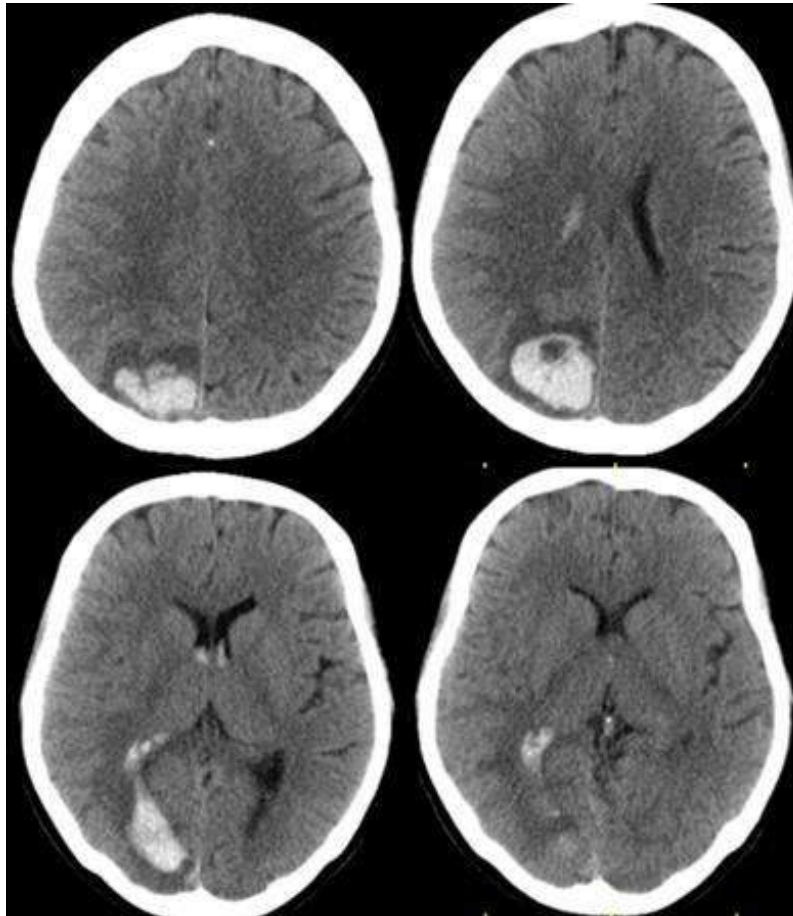
Case: A 21-year-old female patient with no known chronic illnesses presented to an external facility two weeks ago with abdominal and chest pain. Investigations revealed vegetation on the mitral valve. Imaging studies identified parenchymal infarcts in the splenic parenchyma secondary to infective endocarditis. The patient, with emboli detected in the spleen, was started on 2x0.4 dose of oxaparin. The patient, who was planned for mitral valve replacement, was referred to our facility after developing sudden severe headache and vision disturbances during follow-up. Physical examination showed: Glasgow Coma Scale (GCS) of 15, conscious, cooperative, and oriented. Pupils were isocoric. Eye movements in all directions were normal, but the patient described tunnel vision. There was no facial asymmetry, lateralizing signs, or muscle strength deficits.

Figures 1



CT Angiography of the Patient

Figures 2



Non-Contrast Brain CT of the Patient

Conclusions: IE remains a potentially devastating condition that would likely be fatal in all untreated cases. Subarachnoid haemorrhage is a potentially fatal complication of IE and the presentation of headache can be completely different to the classical subarachnoid haemorrhage in these patients. IPatients showing neurological symptoms should be carefully evaluated for intracranial hemorrhage and embolism.

Keywords: Visual Disturbances, Infective Endocarditis, Emergency Medicine



Ref No: 1485

Pub No: S-057

A case of subcutaneous emphysema after dental extraction

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¹Kocaeli Darıca Farabi Training and Research Hospital

Neslihan Ergün Süzer / Kocaeli Darıca Farabi Training and Research Hospital

Background and aim: The most common complications that may occur after molar tooth extraction in dental surgery include pain, trismus, infection, bleeding, maxillary sinus perforation, inferior alveolar sinus injuries and maxillary tuberosity fracture. Subcutaneous facial, cervical, supraclavicular emphysema, and pneumothorax are rare complications. We aimed to emphasize the treatment principles and the importance of early intervention in complications related to tooth extraction with the case report of subcutaneous emphysema detected after the extraction of the molar tooth.

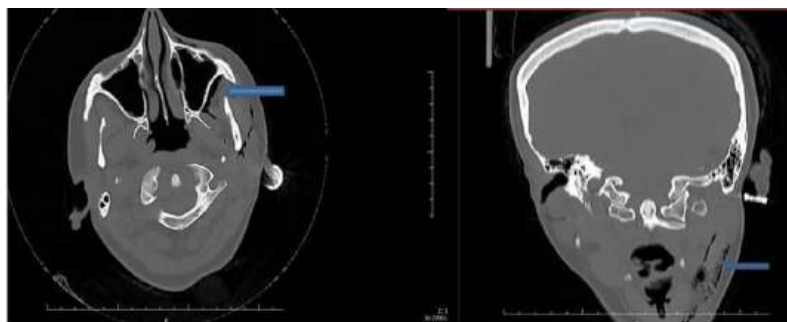
Case: A 25-year-old female patient presented to the emergency department (ED) with complaints of severe pain around the mouth, numbness and swelling on the left side of her face. She had had her lower left 1st molar tooth extracted three hours before her ED visit. She describes increasing pain during and after the procedure. On the first examination, vital signs were temperature: 36.7 C, pulse: 90/min, blood pressure: 150/81 mm/Hg, respiratory rate: 14/min. On physical examination, there was pain and swelling in the head and neck region radiating from the left mouth area to the eye, and effacement of the left nasolabial sulcus (Figure1). Left eyelid movements were painful. Edema and swelling were observed in the left periorbital region. However, this was typically accompanied by audible and perceptible crepitus. In brain computerized tomography (CT) and maxilla-mandible CT images, air images and post-traumatic areas were observed in the left temporal region, around the left maxillary sinus and in the left periorbital planes (Figure2).

Figure1



Edematous appearance in the left periorbital maxillary region of the patient's face

Figure2



Air and post-traumatic areas in CT images

Conclusions: Although rare, life-threatening respiratory problems can be observed among the complications that may develop in patients after tooth extraction. In case of respiratory distress, barotrauma, pneumothorax, and subcutaneous emphysema should be considered in addition to allergic reactions. Rapidly developing palpable crepitations should



suggest subcutaneous emphysema. Early treatment is important in terms of clinical course and patients should be closely monitored in terms of hospitalization.

Keywords: dental extraction, subcutaneous emphysema



Ref No: 1512

Pub No: S-115

A Rare Diagnosis in the Emergency Department: Traumatic Retinal Detachment

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Background and aim: Retinal detachment is the separation of the retina's sensory and pigment epithelial layers, a condition that can lead to vision loss and requires immediate medical attention. It is an important diagnosis to consider in patients presenting to the emergency department (ED) with complaints of decreased or blurred vision. The incidence is approximately 1 in 10,000, with trauma accounting for 10-20% of cases. Symptoms include floaters, flashes of light, and shapes resembling spiderwebs or dark spots. Due to the risk of permanent vision loss, retinal detachment should be a key differential diagnosis for emergency physicians.

Case: A 47-year-old male presented to the ED with vision loss, bruising, and pain in his left eye after falling and hitting his eye on a door the previous day. He reported blurred vision and floaters but denied headaches or loss of consciousness. On examination, his Glasgow Coma Scale (GCS) score was 15, and he was alert and cooperative. Vital signs were stable: blood pressure 110/70 mmHg, pulse rate 71 beats/min, oxygen saturation 98%, and body temperature 36.7°C. His pupils were isocoric, but the left eye had a diminished light reflex. No corneal lesions or hyphema were observed, but conjunctival hyperemia and periorbital ecchymosis were present. Palpation revealed tenderness in the periorbital region, and visual acuity in the left eye was decreased. Bedside ultrasonography revealed retinal detachment and vitreous hemorrhage. A CT scan showed no bone pathology. The patient was diagnosed with traumatic retinal detachment and referred for specialized treatment.

picture 1



point care ultrasonography image of retinal detachment

Conclusions: In ED patients with vision complaints, retinal detachment should be considered, especially in trauma cases. Bedside ocular ultrasonography is a valuable diagnostic tool for detecting retinal detachment and other ocular conditions, allowing for prompt diagnosis and referral.

Keywords: retinal detachment, trauma, ultrasound



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Can Medication Errors be Prevented?

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Background and aim: A medication error is defined by the National Coordinating Council for Medication Error Reporting and Prevention (NCCMERP) in the United States as "a preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer". Medication errors are not only the most common type of error affecting patient safety but also the most frequent type of medical error. In this study, we present a case in which Diclofenac Sodium intramuscular preparation was administered intravenously, leading to the progression of cellulitis, sepsis, MODS, and DIC at the injection site. Additionally, the patient developed acute toxic hepatitis and subsequently hepatic encephalopathy as further complications.

Case: A 35-year-old male patient presented to the emergency department with complaints of joint and muscle pain, along with diarrhea and vomiting, for the past few days. The patient, who works in another clinic within the hospital, reported that a few hours ago, he had received intravenous Diclofenac Sodium in his right upper extremity for analgesic purposes. His medical history revealed no known diseases or medications in regular use. On physical examination, his general condition was moderate to good, he was conscious, oriented, and cooperative, with a GCS score of 15. Vital signs were normal, and neurological examination was unremarkable. The patient was admitted to the ICU for close monitoring after consultations with the departments of infectious diseases, internal medicine, and toxicology revealed rapid progression of his condition. During his ICU stay, the patient developed hepatic encephalopathy and DIC. He received platelet replacement therapy and plasmapheresis. Close monitoring and treatment were provided, and following clinical improvement, the patient was discharged in good health.

Conclusions: While medical treatment is essential for the prevention, improvement, and control of diseases, proper administration of medications, which is a crucial step in medical treatment efficacy, must not be overlooked.

Keywords: Disseminated Intravascular Coagulation, Medication Error Prevention, Diclofenac Sodium

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Walled-off necrosis of late complications of acute pancreatitis: A rare case presentation in Emergency Service

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Background and aim: During the course of pancreatitis, both local and systemic complications may occur. Walled-off-Pancreatic Necrosis(WOPN) is one of them. WOPN is a well-circumscribed area of necrosis that; generally, occurs after 4 weeks from the first pancreatitis attack. Any signs of collection from gas of pancreas or peripancreatic collection; infective-necrosis should be suspected. Clinical worsening and accompanying leukocytosis should also be suspected.

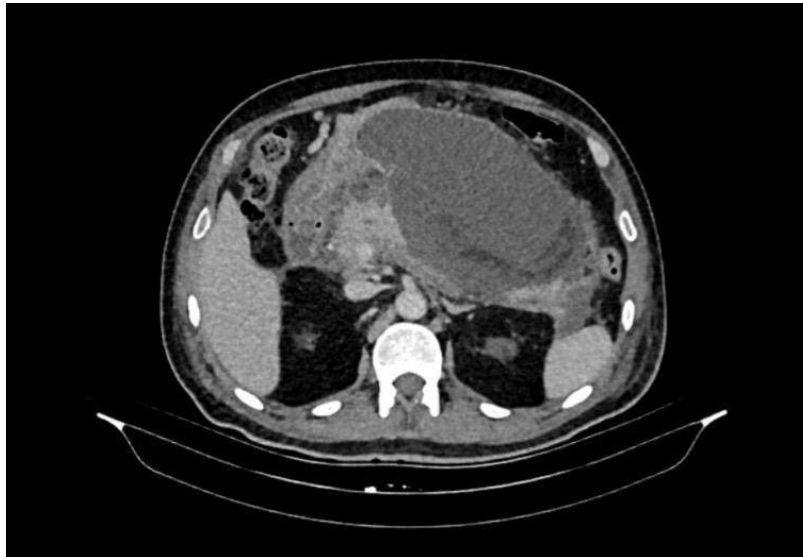
Case: A 39-year-old male patient has applied to the emergency department with complaints of abdominal pain. The pain has started since yesterday, and he has complained about accompanying nausea and vomiting. On physical examination, abdominal tenderness in the right-upper and middle quadrants and abdominal guarding were found. On ultrasound, in the abdominal middle zone, from the pancreatic head, hypoechoic collection. In the tomography images, the thickness and diameter of the gallbladder were found increased, the bile duct was found to be dilated, and an abscess imaging was visualized in the section of the pancreatic head. On the pancreatic body, areas found to be indicating tissue death(necrosis); from indicate aspect of the pancreatic neck, a small fluid collection; and around the pancreas, fat stranding has been observed.

ct



On tomography, heterogeneous densities indicating areas of necrosis in the pancreatic body are visualized.

ct2



Small fluid collections around the pancreas and inflammatory changes in the surrounding fat stranding, as well as areas of necrosis in the pancreatic tissue, are observed.

Conclusions: WOPN is a collection of encapsulated fluid and solid necrotic material that develops in the delayed phase of acute necrotizing pancreatitis (typically around 4 weeks later) (6). Necrosis is a late and significant complication of pancreatitis. Optimal management should involve gastroenterologists, surgeons, interventional radiologists, intensivists, infectious disease specialists, and nutritionists working together. Suspicion of infected necrosis should arise when gas is seen in pancreatic or peripancreatic collections on cross-sectional imaging (7). A step-by-step approach with pre-interventional follow-up and minimally invasive interventions is supported by the literature. In this case report, we tried to explain in the emergency department how to diagnose and correct the approach to a rarely seen systemic complication of also rarely seen severe pancreatitis, WOPN.

Keywords: pancreatitis, necrosis, abscess, case presentation, emergency service



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Pub No:

A Surprising Paradox: D-Dimer Negative Pulmonary Embolism

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Background and aim: Pulmonary embolism (PE) is a potentially serious diagnosis in elderly patients. The cut-off values for the D-dimer test used in the diagnosis phase are determined as 500 µg/L up to the age of 50, while in patients over the age of 50, values below the multiplication of age x 10 are considered negative. Despite this, it has been observed that patients with D-dimer test results below the cut-off value for age were diagnosed with pulmonary embolism using imaging methods. We are sharing with you a rare case report in which we detected pulmonary embolism despite a negative D-dimer result adjusted for age.

Case: An 86-year-old male patient presented to the emergency department due to sudden onset of dyspnea followed by syncope. The patient's vital signs were normal except for a saturation: 88% upon arrival. The patient's D-dimer value was measured as 0.668 ug/ml. Since the patient's score was low-risk according to Wells criteria and the D-dimer score was below the cut-off value according to age, pulmonary embolism was not considered primarily. However, since the patient had syncope and hypoxia, it was decided to perform CT pulmonary angiography. A filling defect compatible with embolism was observed in the main artery of the patient's right lung middle and lower lobes.

Figure1: Wells criteria

Features	Score (points)
Clinical signs and symptoms of DVT	3.0
No alternative diagnosis	3.0
Heart rate >100 beats/min	1.5
Immobilization ≥3 days or surgery in the previous 4 weeks	1.5
Previous DVT or PE	1.5
Hemoptysis	1.0
Malignancy with active treatment in the past 6 months or under palliative care	1.0
Pretest clinical probability	
PE unlikely	≤4.0
PE likely	>4.0

PE = Pulmonary embolism, DVT = Deep vein thrombosis

Figure 2: Filling defect compatible with embolism in the right pulmonary artery (red circle)



Conclusions: The D-dimer test has been known for years to be a highly sensitive test in the evaluation of pulmonary embolism. As demonstrated in the ADJUST-PE study, if the traditional cut-off was applied to our patient with a negative D-dimer value adjusted for age, it would have been detected as positive. As a result, when looking at the literature, the D-dimer cut-off value with 100% sensitivity and specificity is still unknown. The point we want to draw attention to in this case is that clinical and physical examination should always be our priority.

Figure 3: Factors that Cause Errors in D-dimer Measurements

False Positives	False Negatives*
Patient factors: - Increasing age: (60-69 years [OR 2.6], 70-79 years [OR 4.5], ≥80 years [OR 10.5]) - Cocaine use (OR 2.0) - Immobility: general (OR 2.3), limb (OR 2.8), or neurologic (OR 3.0) - Hemoptysis (OR 2.0) - Hemodialysis (OR 2.2) - Malignancy, active (OR 2.6) - Rheumatoid arthritis (OR 2.8) - Systemic lupus erythematosus (OR 2.1) - Sickle cell disease (OR 24.2) - Pregnancy and postpartum state: (2nd trimester [OR 7.3], 3rd trimester [OR 51.3], postpartum [OR 4.2]) - Surgery (<4 weeks prior): abdominal (OR 3.5), chest (OR 2.7), orthopedic (OR 2.2), other surgery (OR 3.2)	Patient factors: - Concomitant anticoagulation† - Symptoms lasting more than 5 days - Subsegmental PE - Isolated pulmonary infarction - Chronic PE System and machine issues: - Wrong sample - Severe lipemia or hemolysis - Protein degradation by proteolysis that can occur with prolonged time from sample draw to analysis

OR = odds ratio; PE = pulmonary embolism.
 * Derived from case reports, experience and manufacturer's information.
 † Theoretically, risk is greatest with vitamin K antagonists and dabigatran, as both inhibit active thrombin generation and therefore reduce factor XIII generation, which could allow for non-cross-linked but insoluble clots. More likely, most PE diagnosed in patients on anticoagulation are simply chronic and thus liberate small amounts of D-dimer.

Keywords: pulmonary embolism, D-dimer, dyspnea



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Atrial Fibrillation Due to Carbon Monoxide Intoxication

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Background and aim: Carbon monoxide (CO) affects almost every organ in the body, with cerebral and myocardial involvement being predominant due to hypoxia-induced cellular damage. However, dysrhythmias due to CO poisoning are not observed very often. Herein, we present a case of severe CO poisoning after smoking hookah that resulted in atrial fibrillation, which successfully converted to sinus rhythm following hyperbaric oxygen therapy (HBOT).

Case: A 48-year-old male presented to emergency department (ED) with complaints of palpitations while smoking hookah at a hookah cafe. There was no reported chest pain. Upon arrival, vital signs were blood pressure 130/80 mmHg, heart rate 130 bpm, SpO2 91%, and temperature 36.5°C. Physical examination revealed tachyarrhythmic heart sounds, other systems examinations, including lung auscultation, was normal. Electrocardiogram (ECG) showed atrial fibrillation with a rapid ventricular response. The patient had no known history of atrial fibrillation. Blood gas analysis revealed carboxyhemoglobin (COHb) level of 23%. Due to cardiac involvement, hyperbaric oxygen therapy (HBOT) was planned. Other blood tests, including cardiac enzymes, were within normal limits. Until transfer to hyperbaric oxygen center, normobaric oxygen therapy was administered, and cardiology consultation was requested due to the newly diagnosed atrial fibrillation. The cardiologist recommended rate control therapy; however, anticoagulation was not recommended as patient's CHA2DS2-VASc score was 0. After a session of HBOT, the patient returned to the ED. Follow-up showed a COHb level of 1.9%, and a repeat ECG indicated a normal sinus rhythm with a heart rate of 78 bpm. The patient was discharged with advice for follow-up in the cardiology outpatient clinic.

Conclusions: It is important for emergency physicians to remember CO intoxication as a potential cause of new-onset atrial fibrillation. Prompt identification and treatment of both conditions are crucial to prevent further complications and ensure the best possible outcome for the patient.

Keywords: atrial fibrillation, carbon monoxide, hookah



Ref No: 1671

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A patient with craniopharyngioma presenting with suspicion of central nervous system infection

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Background and aim: Craniopharyngiomas are rare solid or mixed solid and cystic tumors arising from the remnants of Rathke's pouch, along a line from the nasopharynx to the diencephalon. Craniopharyngiomas grow slowly and symptoms are usually present for a year or more before diagnosis is made. Symptoms of craniopharyngiomas occur due to mass effect and cause headache, visual disturbances, cranial nerve disorders, and hypothalamic or endocrine disorders due to compression of the optic chiasm and pituitary gland.

Case: A 33-year-old female patient presents with persistent headache for 4 days, nausea and vomiting, and blurred vision for 1 day. When she applied to the emergency department, the patient's TA: 96/51 mmHg, pulse rate: 75/min, fever was 36.9. She was conscious, oriented, cooperative, GCS: 15. It was learned that there was no fever in the patient's history. It was learned that the patient had menstrual irregularity for 2-3 months and had been using estradiol valerate/norgestrel for 2 weeks. In the physical examination of the patient, there were no lateralization findings, no significant facial asymmetry, no meningeal irritation findings. Cerebellar tests were normal, no sensory deficits. In the brain CT, a mass lesion with a heterogeneous density of 22x20x30 mm originating from the sella floor and extending to the suprasellar area, with calcifications in its posterior, was observed. In the contrast-enhanced cranial MRI taken for the patient, a lesion consistent with an adenoma filling and expanding the sella, extending to the suprasellar cistern, invading the sphenoid sinus and clivus, showing hemorrhage.

Conclusions: As in our case; although constant headache, nausea, visual disturbances, and oral contraceptive use suggest sinus vein thrombosis, the possibility of a mass-craniopharyngioma that increases intracranial pressure should be kept in mind in young adults.

Keywords: craniopharyngioma, emergency department



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Chronic Thinner Inhalation

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Background and aim: Altered consciousness is a common symptom in emergency departments, with numerous potential differential diagnoses. However, the rarity of certain causes, combined with the patient's tendency to conceal the use of substances like thinner or glue, makes it difficult to consider these substances in the diagnostic process. Therefore, all patients presenting to the emergency department should undergo a systematic examination, and the history should be thoroughly explored. If necessary, the history should be repeated based on any pathologies detected through diagnostic tests.

Case: A 30-year-old male presented to the emergency department with sudden-onset altered consciousness. His medical history included methanol intoxication. Except for a heart rate of 100 beats per minute, his vital signs were within normal limits. Upon arrival, his Glasgow Coma Scale (GCS) score was 12. His breath sounds were normal, and his electrocardiogram (ECG) showed sinus tachycardia. Cranial CT and MRI results were consistent with toxic encephalopathy, and he was admitted to the intensive care unit with a diagnosis of toxic encephalopathy due to chronic thinner inhalation.

Conclusions: Preventing inhalant substance use should be the primary goal, with special attention to high-risk groups. Patients with a history of psychiatric medication use, suicide attempts, or substance abuse should be carefully evaluated for additional substance use. The dangers of sudden death, burns, flash fires, and severe brain damage should be emphasized to patients at risk of inhalant use. Parents should also be educated about the dangers and warning signs of inhalant substance use.

Keywords: confusion, thinner inhalation, toxicity



Ref No: 1753

Pub No: P-028

Thrombolytic Therapy Monitoring with ETCO2 in an Unstable Pulmonary Embolism Case: A Case Report

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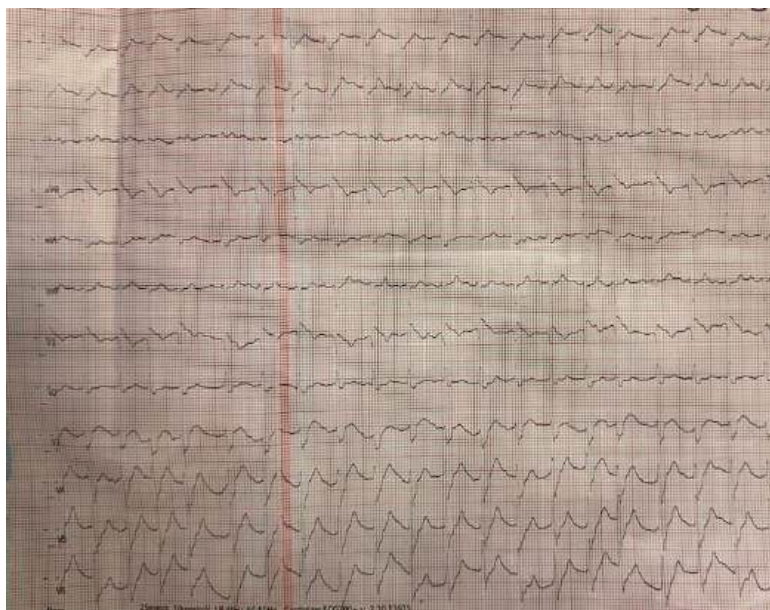
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Background and aim: Pulmonary embolism (PE) is a life-threatening condition requiring rapid intervention. Massive PE with hemodynamic instability has a high mortality rate. Thrombolytic therapy is crucial for restoring pulmonary perfusion, and non-invasive methods like End-tidal CO₂ (ETCO₂) are useful for monitoring its effectiveness. This case report presents how ETCO₂ was used to track thrombolytic therapy success in a patient with massive PE.

Case: An 84-year-old male with a history of pulmonary embolism and recent bladder cancer surgery presented to the emergency department with shortness of breath and confusion. Upon arrival, he was found to be hemodynamically unstable, with a GCS of 13, blood pressure of 90/60 mmHg, and an oxygen saturation of 80%. EKG revealed an S1Q3T3 pattern, and bedside echocardiography showed signs of right ventricular dilation. After intubation, the patient went into cardiac arrest but was successfully resuscitated with CPR. Thrombolytic therapy (100 mg alteplase) was initiated, and ETCO₂ levels rose from 5 mmHg to 27 mmHg over 120 minutes, suggesting improved pulmonary perfusion. The patient was later transferred to an intensive care unit for continued monitoring and further treatment.

Figure 1: ECG Findings of Pulmonary Embolism with S1Q3T3 Pattern

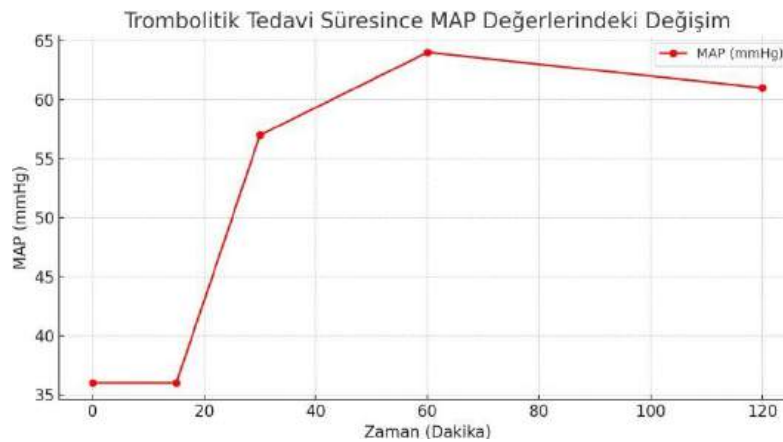




The S1Q3T3 pattern is an electrocardiographic finding that can be seen in patients with acute pulmonary embolism (PE). It is characterized by a prominent S wave in lead I, a Q wave in lead III, and an inverted T wave in lead III. While not specific to PE, this pattern can indicate right heart strain due to a sudden increase in pulmonary artery pressure.

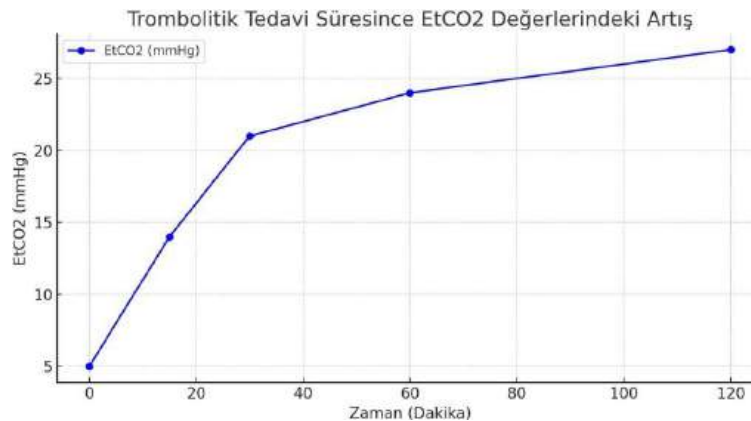
Conclusions: Pulmonary embolism (PE) can present with hemodynamic instability or shock in a small subset of patients, making early diagnosis and treatment crucial. In this case, the patient's PE history and right ventricular overload detected on bedside ultrasound supported the diagnosis of massive PE. In such cases, thrombolytic therapy should be considered and administered promptly, as it significantly reduces mortality. Due to the patient's instability, thrombolytic therapy was initiated without delay. ETCO₂, initially at 5 mmHg, is a key indicator of impaired pulmonary perfusion. Its increase after thrombolysis demonstrated effective treatment. The rise in ETCO₂ and improved MAP indicated recovery from shock. This case highlights the value of ETCO₂ in monitoring thrombolytic therapy success in PE.

Figure 2: Changes in MAP Values During Thrombolytic Therapy



This graph shows the changes in mean arterial pressure (MAP) over time (in minutes) during thrombolytic therapy. Initially, the MAP is low, but after 40 minutes, there is a significant increase, which stabilizes at around 60 minutes and then shows a slight decline at 120 minutes.

Figure 3: Increase in EtCO₂ Values During Thrombolytic Therapy





This graph illustrates the progression of end-tidal CO₂ (EtCO₂) values over time (in minutes) during thrombolytic therapy. Starting from a low baseline, the values steadily rise, indicating improved gas exchange or perfusion as the therapy progresses

Keywords: Pulmonary Embolism, Thrombolytic, ETCO₂



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A RARE CAUSE OF ABDOMINAL PAIN: LEFT APANDICITIS

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Background and aim: Acute abdominal pain, traditionally defined as non-traumatic origin lasting up to 5 days, is one of the most common complaints that leading people to visit the emergency department. Causes of pain in the left quadrant of the abdomen include pathologies such as sigmoid diverticulitis, colocolic intussusception, volvulus and incarcerated hernia. Rarely, atypically located acute appendicitis due to intestinal malrotation may be the cause of pain. In this article, we report a 25-year-old female patient who was diagnosed with left lower quadrant appendicitis.

Case: A 25-year-old woman presented with abdominal pain that had been present for 3 days and had become more pronounced on the left side in the last day. On physical examination, the patient had diffuse tenderness in the abdomen, and deficiency and rebound were prominent in the left lower quadrant. No pathology was found on standing abdominal radiography and chest radiography. The patient was in acute abdomen. Abdominal and pelvic contrast enhanced computed tomography (CECT) was planned. CECT showed 'migration of the cecum to the midline and contamination concentrated in the left lower quadrant was observed. There was a tubular structure extending from the cecum, extending to the left lower quadrant, with markedly dirty surroundings, irregular walls, measuring 15 mm in the wide part. Radiological findings were initially evaluated as perforated appendicitis. The patient was transferred to the surgery clinic for operation after general surgery consultation.

Conclusions: There are many causes of left lower quadrant abdominal pain. At first glance, the following should be considered in the differential diagnosis: sigmoid diverticulitis, abdominal aortic aneurysm dissection, renal colic, epididymitis, prostatitis, testicular torsion, incarcerated hernia, intestinal obstruction, psoas abscess, etc. Although right-sided appendicitis is considered, the possibility of left-sided acute appendicitis due to situs inversus or intestinal malrotation is rare but should be kept in mind.

Keywords: left apandicitis, abdominal pain



Ref No: 63
Pub No: P-027

Cockayne syndrome and challenges in emergency management

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Background and aim: Cockayne Syndrome (CS) is a rare autosomal recessive neurodegenerative disorder characterized by growth failure, premature aging (progeria), photosensitivity, neurological abnormalities and average life expectancy is 12 years. Herein, we report a 25-year-old patient with CS presented with rapid deterioration in general condition.

Case: A 25-year-old male weighing 13 kg presented with weakness, reduction in oral intake for the past week, with complete cessation over the last two days. He had been undergoing physical therapy and rehabilitation due to a decline in independent activities of daily living since the age of 10. Three years prior, he was able to walk independently and had normal vision and speech. Upon admission, his blood pressure: 101/75 mmHg, heart rate: 106 bpm, SpO₂: 90%, and temperature: 36.5°C. On examination, there was a growth retardation, an aged appearance, subcutaneous fat loss, mucosal dryness, tooth loss and photosensitive malar rashes on his face. The patient had complete hearing and vision loss. There was no gag reflex and joint movements in extremities showing resistance to passive motion. Other systemic examinations were normal. Laboratory tests revealed that urea:209 mg/dL, creatinine:3.18 mg/dL, sodium:164 mmol/L, CRP:129 mg/L, pH:7.4, lactate:3.1 mmol/L. Other parameters were within normal limits and there was no findings suggestive of infection. Intravenous hydration was initiated due to concerns of prerenal acute renal failure. A consultation with internal medicine was arranged for hospitalization. However, the patient's relatives declined the recommendation for admission, and then he left ED while hydration was still ongoing.

Conclusions: Supportive management are crucial in improving quality of life for individuals with progeria syndromes like CS. The role of emergency physicians is often limited due to complexity and chronic nature of condition, however, it should be remembered that detection and treatment of opportunistic infections and a multidisciplinary approach may significantly impact mortality.

Keywords: Cockayne Syndrome, progeria, neurodegenerative disorder



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Is Intraparenchymal Hematoma the Cause of the Seizure?

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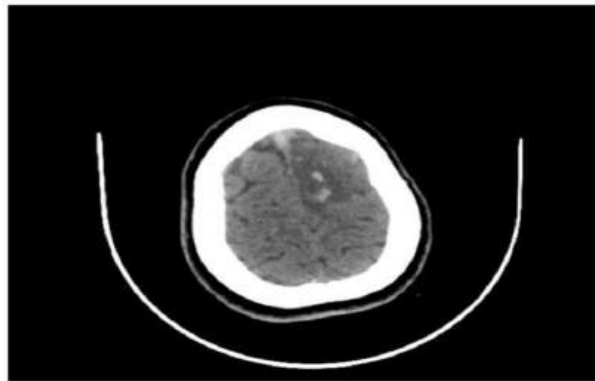
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Background and aim: Thrombosis of cerebral veins and sinuses is one of the rare cerebrovascular diseases. It is responsible for 1–2% of all strokes in adults (1). Cerebral venous thrombosis (CVT) can develop due to hypercoagulability, vasculitis, and infections (2). In pregnancy, most cases of CVT occur in the puerperium (3). They usually present with headache, focal deficits, and seizures (4). Neuroradiological examinations are helpful in diagnosis. Low molecular weight heparins (LMWH) can be used in treatment (5). Here, we aimed to present a case of CVT presenting with postpartum epileptic seizures.

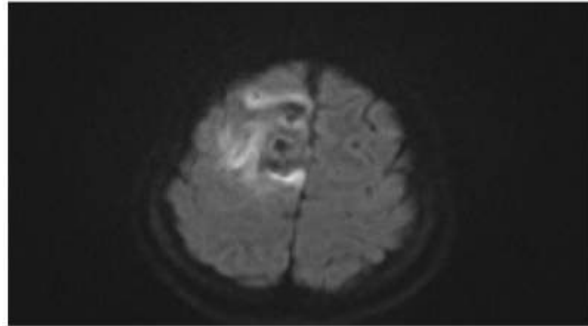
Case: 23 year old female. No known disease or medication use. She gave birth 15 days ago. No history of trauma. The patient was brought to the emergency room with a complaint of seizures. She was having active generalized tonic-type (GTK) seizures when she entered the emergency room. 1 ampoule (amp) of diazepam was administered intravenously (IV). Lactate was: 6 in the blood samples taken. She was seen to be aphasic during the examination. Parenchymal hemorrhage was observed in the right frontal region in the brain computed tomography (BBT). The patient was admitted to the neurosurgery intensive care unit. The patient was consulted to neurology in the intensive care unit and thrombus was detected in the superior sagittal sinus in the MR venography. She was discharged after a total of 8 days of hospitalization with a recommendation for outpatient clinic.

figure 1



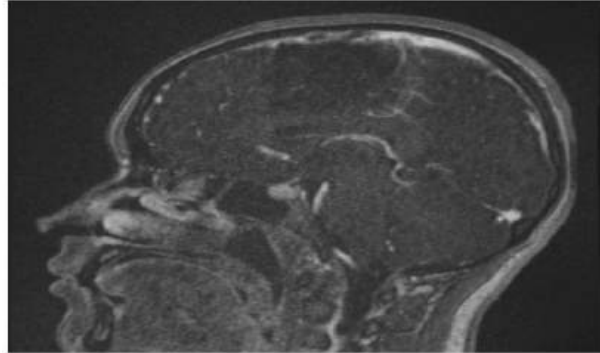
Patient's brain CT image

figure 2



Diffusion MRI image of the patient

figure 3



MR venography image of the patient (Thrombus in the superior sagittal sinus)

Conclusions: Cerebral venous thrombosis causing cerebral infarction or hemorrhage is a complication of pregnancy (4). Diagnosis of CVT can only be made with imaging studies performed as a result of clinical suspicion (6). Therefore, imaging studies should be requested more flexibly in patients presenting with neurological symptoms during pregnancy or the postpartum period, and the possibility of underlying CVT should be kept in mind when a hemorrhagic area is seen on brain CT.

Keywords: Pregnancy, intraparenchymal hematoma, cerebral venous thrombosis

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Occipital Neuralgia, a Rare Cause of Herpes Zoster Infection: Case Report

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Background and aim: Occipital neuralgia (ON) is characterized by sharp, stabbing pain in the occipital nerve dermatomes. Its causes include muscle, bone, and vascular compression, tumors, autoimmune diseases, and varicella zoster virus (VZV) infection. We aim to present a case of Herpes Zoster (HZ) manifesting as ON and fever as the initial symptoms.

Case: A 40-year-old male presented to the emergency department with headache, fever, and fatigue lasting two days. The pain began in the nape and radiated to the back of his head, described as an "electric shock." On examination, his general condition was good, he was conscious, oriented, cooperative but agitated, with a body temperature of 38.9°C. There were no visible lesions, but tenderness was noted in the occipital region. Laboratory results showed elevated white blood cell count (13780 mm³), neutrophils (11390 mm³), and CRP (15.3 mg/dl). Brain computed tomography (CT) showed no abnormalities. ON was suspected after a neurology consultation, and he was discharged with carbamazepine and paracetamol. The following day, the patient returned with worsening symptoms and vesicular lesions on his occipital scalp. CRP levels had increased by 77 mg/dl, and further imaging (brain CT, brain and cervical magnetic resonance imaging (MRI)) showed no significant findings. Consultations with Infectious Diseases and Neurology confirmed ON secondary to HZ infection. Valacyclovir was added to the treatment, and symptoms improved on the second day.

Figure 1





white arrows indicate vesicular lesions on the occipital scalp

Conclusions: HZ typically begins with fever, fatigue, and burning sensations on the skin, followed by painful vesicular lesions. Although rare, ON can be a presenting symptom of HZ. A few cases of ON caused by HS infection have been reported. In cases of neuralgic pain with fever, HZ should be considered, even if skin lesions are initially absent.

Keywords: Headache, Occipital Neuralgia, Herpes Zoster



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Pub No: P-145

Emergency Intervention for Arm Entrapment in a Meat Grinder: A Case Report

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Background and aim: Industrial accidents can lead to severe injuries, particularly among young and inexperienced workers. These incidents represent complex and high-risk scenarios frequently encountered in emergency departments. This case report discusses the management of a 16-year-old butcher's apprentice who sustained a significant injury when his right arm became entangled in a commercial meat grinder, emphasizing the importance of a multidisciplinary approach in emergency care.

Case: A 16-year-old male presented to the emergency department with his right arm trapped in a commercial meat grinder, 5 cm from the elbow. Rapid and effective collaboration was established between the emergency medical team, surgical team, and fire department to safely extricate the patient's arm from the machine. The machine, weighing 75 kg, was cumbersome to move, complicating the removal process. The patient's arm was extricated while preserving neurovascular structures. The fire department utilized hydraulic rescue shears during the procedure. Following successful removal, the patient underwent emergency surgery to address extensive soft tissue and skeletal injuries. The surgical team performed comprehensive repairs, and a multidisciplinary postoperative treatment plan was devised.

Conclusions: The effective management of severe industrial trauma necessitates a multidisciplinary approach and prompt intervention. This case underscores the importance of coordinated efforts in the emergency department and the need for stringent safety measures to prevent similar injuries. Education and awareness for young workers in high-risk industries are crucial to reducing the incidence of such accidents.

Keywords: Industrial accident, Multidisciplinary approach, Meat grinder injury, Skeletal injury, Emergency care

Ref No: 1949

Pub No: S-059

Aneurysmal Inferior Vena Cava: A Rare Case

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¹Bagıclar eğitim araştırma hastanesi

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Background and aim: Inferior vena cava aneurysm was first described by Oh and colleagues in 1973(1). Venous aneurysms are defined as localized solitary venous dilatations that connect to major veins without being associated with fistulas or pseudoaneurysms, and they are rare(2). Venous aneurysms are generally asymptomatic.

Case: A 67-year-old female patient presented with a complaint of falling. The patient had slipped and fallen backward while descending stairs. She was a housewife with a known history of hypertension and coronary artery disease. She had undergone mitral valve surgery 30 years ago. Upon examination, blood pressure 117/78 mmHg, heart rate 88 bpm, temperature 36°C, and respiratory rate 16 breaths/min. The patient had tenderness over the thoracic vertebrae and left pelvic area. Lung sounds and abdominal examination were normal. The patient reported pain in the left pelvic region, which worsened with movement. There was no weakness or loss of movement in the extremities. Initial X-ray imaging revealed no acute osseous pathology. As the patient's pelvic pain radiated to the abdomen, a contrast-enhanced abdominal CT was performed. The imaging did not reveal any organ injury explaining the pain; however, a fusiform aneurysm of the inferior vena cava (IVC) was incidentally detected (Figures 1 and 2). Since the aneurysm was asymptomatic and not of surgical size. The patient showed clinical improvement during follow-up and was discharged with a recommendation for cardiovascular surgery outpatient follow-up.

Image 1; Vena Cava Inferior Aneurysm.

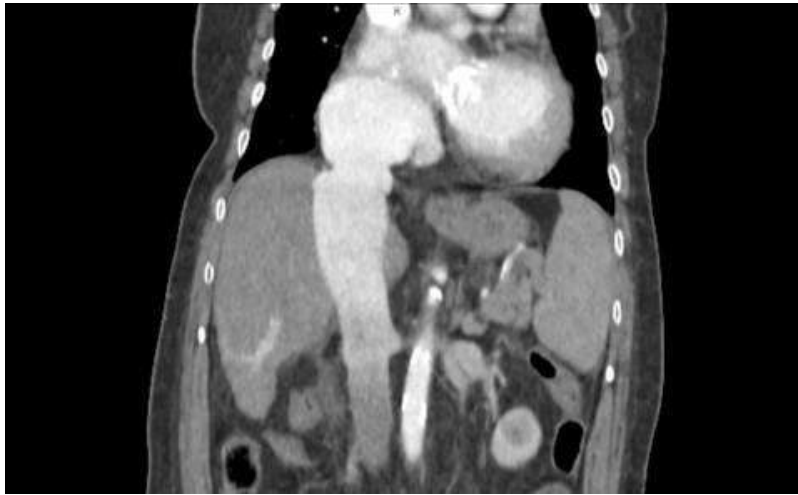


Image 2; Vena Cava Inferior Aneurysm.



Conclusions: Venous aneurysms are rare diseases. Imaging methods such as computed tomography, duplex color Doppler ultrasonography, magnetic resonance angiography, and conventional venography can be used to confirm the diagnosis. IVC aneurysms have been classified as saccular, fusiform, and diverticular. IVC aneurysms, which are among the rarest venous aneurysms, may be encountered incidentally. The characteristics of the detected aneurysm play a critical role in treatment selection and guide the choice of the appropriate treatment plan.

Keywords: Inferior Vena Cava Aneurysm (IVC Aneurysm), Venous Dilatation, Conservative Treatment



Ref No: 1993

Pub No: S-222

Vasospasm following aneurysmal subarachnoid hemorrhage

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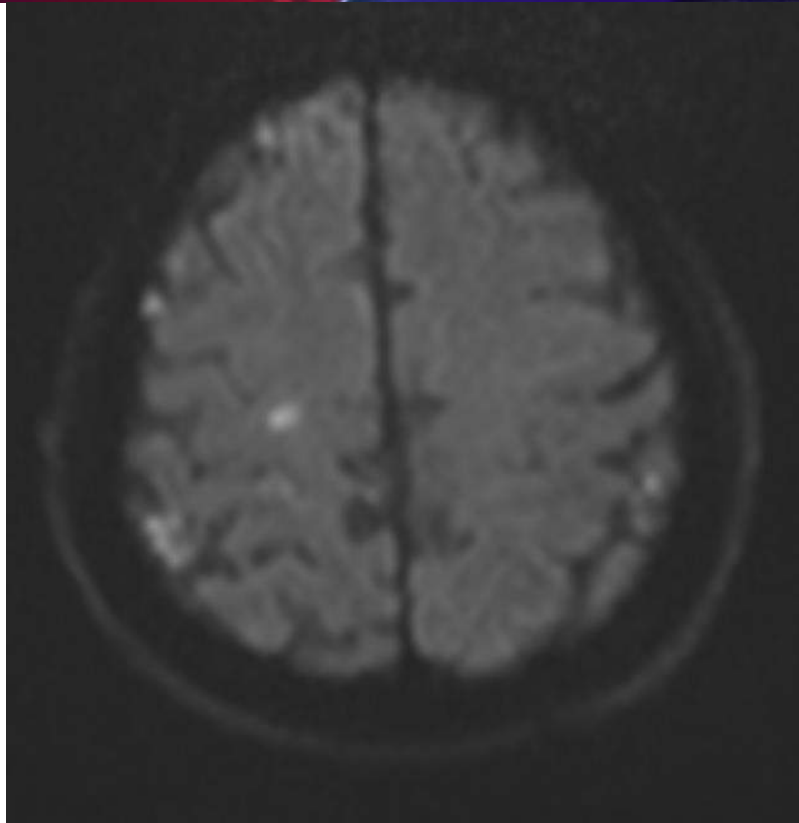
Background and aim: Despite the advances in diagnosis and treatment of SAH, effective therapeutic interventions are still limited and clinical outcomes remain disappointing. There is substantial evidence that two main issues contribute to the significant mortality and morbidity associated with SAH: cerebral vasospasm (CVS) and early brain injury (EBI)..Symptomatic vasospasm occurs in 20% to 40% of SAH patients and typically refers to clinical worsening after other possible causes of deterioration have been eliminated (1,2).

Case: 63 years old male patient with a known history of hypertension. the patient was evaluated at an external centre 10 days ago due to a fall from the same level. The patient presented to our clinic with complaints of left leg weakness and headache which developed about 6 hours ago. The headache continues intermittently with a throbbing character. GCS:15 orientated and co-operative at presentation to the emergency department. No motor sensory lateralisation, full muscle strength, no nuchal rigidity was detected. Brain CT was requested showed mild hyperdense appearances in the cortical areas in the parietal regions (Figure: 1). During the emergency department follow-up, the patient developed headache aggravation and agitation. The patient had loss of orientation to place and person lasting approximately 10 minutes. cranial CT angiography and cranial MR imaging were ordered. CT angiography revealed saccular aneurysm in ACoM and vasospasm in intracranial arteries. (Figure 2)The patient was admitted to the neurosurgery intensive care unit for operation.

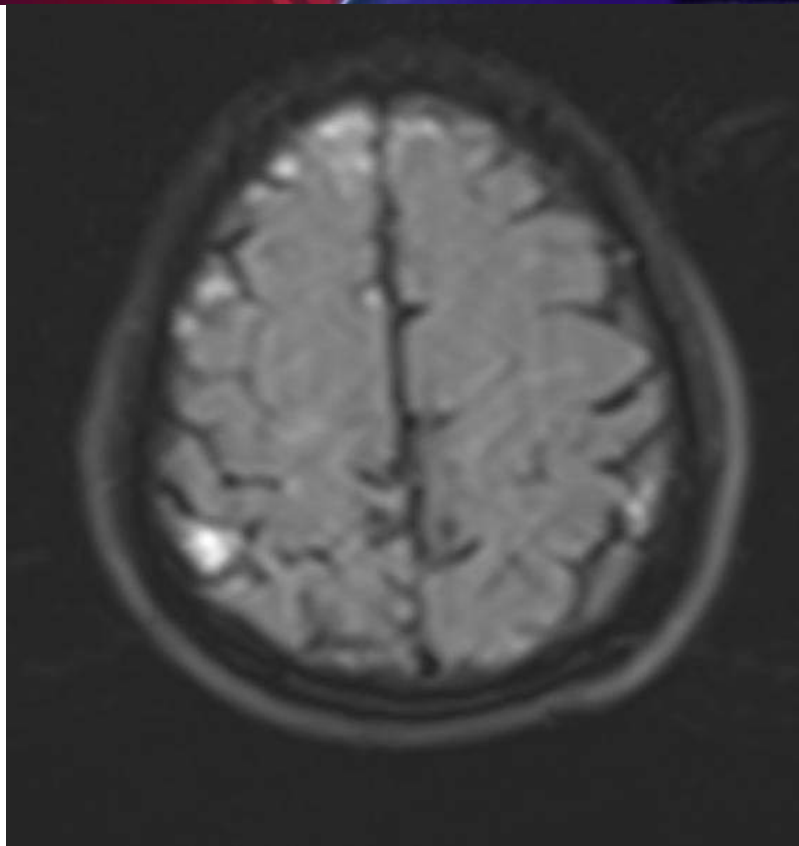
Cranial CT of patient SAH diagnosed



MRIG of patient shown cerebral ischemia and vasospasm



MRIG of patient shown cerebral ischemia and vasospasm



Conclusions: Delayed cerebral ischemia is one of the major complications of aSAH and one of the leading causes of high morbidity and mortality. (3). Molecular pathways underlying early brain injury after SAH remains further to be elucidated. Given the complexity of the pathogenesis in SAH, therapeutic modalities interfering with different pathophysiological pathways of SAH, and interventions targeting both cerebral vasospasm and early brain injury appear to be more desirable.

Keywords: headache, SUBARACHNOID HEMORRHAGE, vasospasm



Ref No: 2013

Pub No: S-090

Acute Cyanide Poisoning with Rare Pulmonary and Renal Complications

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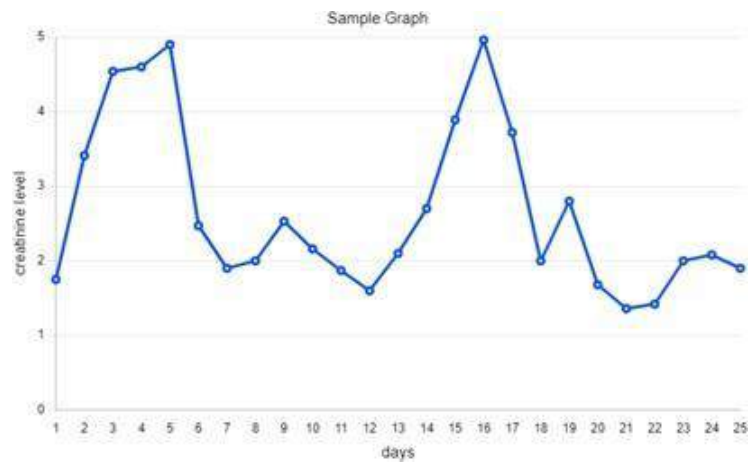
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Background and aim: Cyanide is a potent poison known for centuries, capable of causing death within minutes, even in small doses. It is used in many industrial fields such as mining, the chemical industry, and agriculture. Currently, it is a topic of discussion due to its use in gold mining and its environmental toxicity. Cyanide is a mitochondrial toxin known for its exceptional lethality, ranking among the most rapidly acting poisons in existence. Historically employed as a means of execution, cyanide induces fatality within a matter of minutes to hours following exposure. In this study, we present a case of acute cyanide poisoning in which the timely administration of an antidote demonstrated a noteworthy reduction in mortality risk.

Case: A 45-year-old jeweler with no prior medical history ingested cyanide at a nearby factory and presented at the emergency department with a Glasgow Coma Scale(GCS) score of 13. He experienced seizures and loss of consciousness, necessitating intubation. Initial lab results showed a pH of 6.6, PCO₂ of 59mmHg, bicarbonate at 12mEq/L, base excess at -36, lactate concentration at 15mmol/L, and methemoglobin levels at 2.7%. The patient received 5 grams of Cyanokit(hydroxocobalamin) and was transferred to the medical toxicology ICU. Hydration and bicarbonate therapy administered then pH levels rising to 7.29, bicarbonate levels at 21mEq/L, and lactate levels decreasing to 3mmol/L within three hours. On the 25th day of follow-up, the patient was extubated, and no renal, respiratory, or neurological deficits were observed.

Figure 1



Daily creatinine value monitoring of the patient

Conclusions: Cyanide poisoning is a rare but highly lethal type of poisoning. Early diagnosis and treatment can reduce this risk. In the presented case, the timely and effective administration of supportive care and antidote treatment enabled the patient to be discharged without morbidity. Having antidotes available at every healthcare facility can help prevent fatalities in this uncommon type of poisoning.

Keywords: Acute Cyanide Poisoning, Pulmonary Complications, Renal Complications



Ref No: 2035

Pub No: S-120

Traumatic Vertebral Artery Dissection and Ischemic Stroke in a Young Patient: A Case Report and Management Approach

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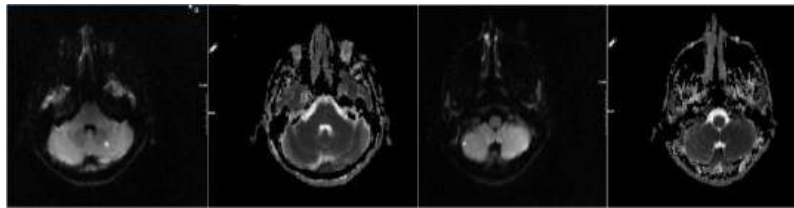
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Background and aim: Vertebral artery dissection is a rare but serious condition that can occur following trauma, particularly in young patients presenting with dizziness, loss of consciousness, and neurological symptoms after a neck injury. Diagnosis is often delayed, and early recognition is critical for a better prognosis. In this case report, we aim to present the diagnostic and therapeutic process of a young patient who developed vertebral artery dissection following trauma.

Case: A 25-year-old male presented to the emergency department with dizziness, loss of consciousness, and neck pain after a fall during a football match. He briefly lost consciousness after a blow to the neck but recovered quickly, with no seizure signs like convulsions, urinary incontinence, or frothing. On examination, he was conscious and cooperative, with normal motor and sensory exams except for a positive Romberg test and minimal tandem gait clumsiness. Initial brain CT was unremarkable, but diffusion MRI revealed small ischemic lesions in the right cerebellar hemisphere and left cerebellum. Vertebral artery dissection was suspected, and carotid CT angiography confirmed a dissection in the right vertebral artery's V2 segment. Endovascular treatment wasn't recommended; the patient was started on low molecular weight heparin (enoxaparin). His symptoms improved, and he was discharged on the fourth day with a prescription for enoxaparin. A follow-up MR angiography was scheduled for one month, and he was referred to a stroke clinic for further monitoring.

magnetic resonance imaging (MRI)



Diffusion-weighted magnetic resonance imaging (MRI) of the brain revealed millimetric lesions consistent with acute ischemia in the lateral right cerebellar hemisphere and the midline region of the left cerebellum

computerized tomography angiography



carotid CT angiography confirmed dissection in the V2 segment of the right vertebral artery.

Conclusions: In this case, the patient's vertebral artery dissection was diagnosed in the acute phase, allowing for timely medical intervention. The use of anticoagulation therapy proved effective in stabilizing the patient's condition and preventing further ischemic events. Regular follow-up and monitoring are critical in ensuring long-term recovery and reducing the risk of recurrence.

Keywords: Traumatic Vertebral Artery Dissection, Ischemic Stroke in a Young Patient, loss of consciousness, Emergency Medicine, Neurological emergencies



Ref No: 2103

Pub No: P-019

Foreign Body Inside the Skull: Case Report

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Background and aim: Head traumas with penetrating injuries are among the most common causes of emergency room visits. Clinical findings can range from confusion to coma and death. Depending on the speed, penetrating sharps can damage the area of brain tissue 3-4 times the size of the injuring tool.

Case: A 28-year-old male patient was brought to the emergency department unconscious as a work accident. According to the anamnesis obtained from the patient's relatives, the patient was brought to us as a result of losing control of the spiral device while cutting with a spiral. The patient was intubated to ensure airway safety with stable vitals at admission. On initial examination, a disc fragment approximately 3*8*10 cm in size was observed penetrating the right nasal orbital pit and orbital wall and invading the brain. On CT imaging of the patient; a foreign body with a depth of 75 mm and a thickness of 20 mm and a shape of a quarter circle with a depth of 75 mm and a thickness of 20 mm was observed in the midline and right side of the face, disrupting the integrity of the lower wall of the orbit, disrupting the maxillary sinus and extending to the right temporal lobe and right frontal lobe inferior. It extends to the sella neighborhood on the right lateral side and shifts the midline structures to the left by 6 mm. Partial fractures are observed in the nasal bone. The integrity of the frontal bone was disrupted and fractures were observed in the right temporal bone. The patient was evaluated by the relevant branches and emergency surgical intervention was not planned, elective multidisciplinary surgery was planned and transferred to intensive care unit.

Figure 1



figure 2



figure 3



Conclusions: We aimed to contribute to the literature with this case which we think is a different case.

Keywords: spiral device, head trauma, Penetrating injury



Ref No: 2121

Pub No: S-014

The Dangerous Complication of Spondylodiscitis: A Case of Psoas Abscess

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Background and aim: Spondylodiscitis, an infection of the intervertebral disc and adjacent vertebrae, is the most common spinal infection. It can develop through hematogenous spread or direct transmission from invasive procedures or nearby infections. If left untreated, the infection can extend to soft tissues, causing paravertebral or psoas abscesses. The diagnostic process is often delayed due to nonspecific symptoms, with back pain being the most common presentation. Neurological symptoms, such as leg weakness or paralysis, occur in one-third of cases.

Figure 1

PREDISPOSING CONDITION	n (%)
Previous surgical operation	10 (31,3)
Hip arthroplasty	2 (6,3)
Foreign body	4 (12,5)
Vertebral osteomyelitis/discitis	8 (25,0)
History of trauma	4 (12,5)
Intramuscular injection	2 (6,3)
Cardiac valve replacement	1 (3,1)

Case: We present a 68-year-old woman with a 1.5-month history of persistent lower back pain and recent complaints of chills, a recorded fever of 38.1°C, and hematuria. Her past medical history included heart failure, chronic kidney disease (on regular dialysis), and insulin-regulated diabetes. The patient was taking aspirin and beta-blockers. Laboratory results showed leukocytosis (WBC: $11.0 \times 10^9/L$), neutrophilia ($8.6 \times 10^9/L$), and significantly elevated CRP (71.2 mg/L), suggesting an ongoing infection. Urinalysis was positive for both RBCs and WBCs, indicating a urinary tract infection (UTI). Given the unclear etiology of her prolonged back pain, which predated the UTI, a contrast-enhanced abdominal CT and non-contrast lumbar CT were performed. Imaging revealed spondylodiscitis, most prominent at the L1-L2 level, accompanied by a right-sided psoas abscess. Additionally, emphysematous cystitis was noted in the bladder. Diagnosis of spondylodiscitis and its secondary complications was confirmed through CT imaging.

Figure 2





Figure 3



Conclusions: Spondylodiscitis should be considered in patients with prolonged back pain, fever, and elevated acute phase reactants. Complications vary depending on the vertebral level involved and can include psoas abscess, as seen in this case. Prompt diagnosis and treatment are essential to prevent neurological deficits and stabilize the spine. Both antibiotic therapy and surgical intervention may be required for optimal management. Despite its rarity, the incidence of spondylodiscitis is rising due to an increase in high-risk populations and improved diagnostic tools.

Keywords: spondylodiscitis, psoas abscess, spinal infection complications



Ref No: 2140

Pub No: S-072

Extremely Rare Situation: Wrong Intubation - Correct Result

Fatih Mehmet Aksoy¹, Merve Yazla¹

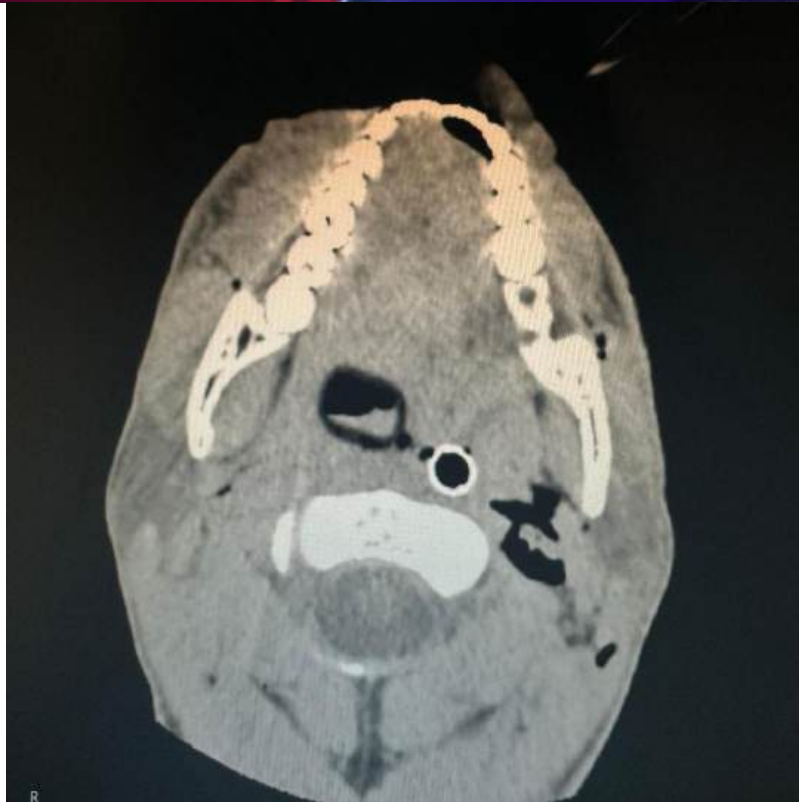
¹Etilik Şehir Hastanesi

Fatih Mehmet Aksoy / Etilik Şehir Hastanesi

Background and aim: Trauma patients are a group requiring rapid and meticulous intervention in emergency departments. In patients with multi-trauma, endotracheal intubation is a frequently used medical procedure during the "Airway" assessment in the A-B-C-D sequence. Due to the known vital complications associated with endotracheal intubation, the procedure must be performed carefully and subsequently verified. In this intriguing case, a patient with multi-trauma underwent rapid sequence intubation, and during the post-intubation check, it was observed that although the tube should have passed between the vocal cords, it entered the ventricles instead but then advanced back into the trachea due to a tracheal rupture, thus ensuring the patient's ventilation.

Case: A 20-year-old male patient presented to the emergency department following a car accident. Initial GCS: 3, hypotensive, and tachycardic. Ventilation was initially provided by paramedics using an LMA, followed by rapid sequence intubation and trauma protocol application. When the intubation was checked, the tube was observed to be traversing through the laryngeal ventricles. However, physical examination revealed that both lungs were equally ventilated, and the saturation levels were within normal ranges. Imaging showed that the intubation tube, having passed through the laryngeal ventricles, re-entered the trachea due to a tracheal rupture. Following this observation, the patient was taken to surgery by the ENT and Thoracic Surgery departments for rupture revision.

CT



The tube is observed to have passed through the laryngeal ventricle.

CT



It is observed that the tube has resumed its course within the trachea.

Conclusions: After every endotracheal intubation, the position of the tube should be confirmed through physical examination and, if necessary, imaging. Additionally, unusual variations of endotracheal intubation should be considered.

Keywords: Intubation, Trauma, Rare



Ref No: 2151

Pub No: S-047

Acute-Onset Paraplegia Due to Leriche Syndrome: A Case Report

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Background and aim: Leriche syndrome is a rare vascular condition caused by thrombotic occlusion in the abdominal aorta, usually distal to the renal arteries. Typical symptoms include claudication, absent femoral pulses, and impotence in males. Less common manifestations may involve renal dysfunction, coldness in the extremities, and abdominal pain. Risk factors include male gender, smoking, hypertension, hyperlipidemia, and diabetes. Diagnosis is confirmed through computed tomography (CT) angiography, which identifies thrombotic occlusion.

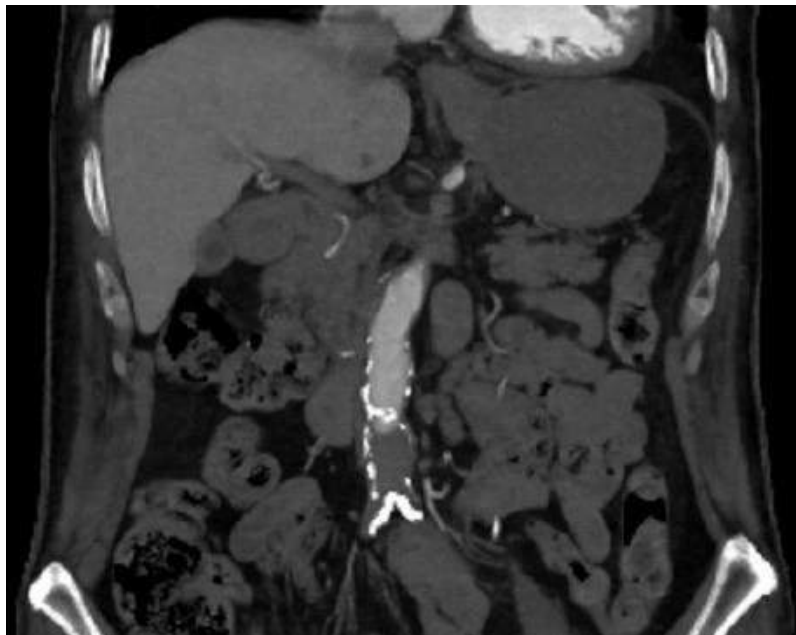
Case: A 66-year-old male with a history of ischemic cerebrovascular disease, benign prostatic hyperplasia, and an implantable cardioverter-defibrillator due to ventricular tachycardia presented with sudden-onset weakness, numbness, and inability to walk in the lower extremities. The patient had no recent history of lumbar trauma or pain. Vital signs showed a blood pressure of 96/58 mmHg and a pulse rate of 73 bpm. Neurological examination revealed bilateral lower extremity muscle strength of 1/5, and filiform pulses in both legs. Initially, cerebrovascular disease and cauda equina syndrome were considered as differential diagnoses. However, CT angiography revealed a thrombus completely occluding the distal abdominal aorta and both iliac arteries. The patient underwent emergency bilateral femoral embolectomy, which resulted in significant improvement in muscle strength, and he was discharged in good condition.

Figure 1



Sagittal view of the patient's computed tomography scan

Figure 2



Coronal view of the patient's computed tomography scan



Conclusions: Leriche syndrome is commonly associated with claudication and absent pulses, but this case highlights a rare presentation with paraplegia in the absence of typical symptoms. Although infrequent, Leriche syndrome should be considered in the differential diagnosis of patients with acute paraplegia. Prompt imaging and vascular assessment are critical for timely diagnosis and management.

Keywords: leriche syndrome, acute paraplegia, claudication



Ref No: 2187

Pub No: S-062

Diagnostic Dilemma: A Simple Gastrointestinal Infection or Life-Threatening Mesenteric Ischemia?

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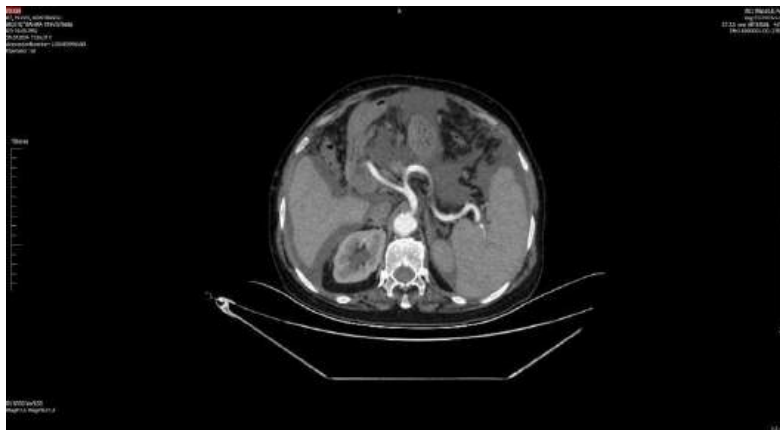
¹GAZİOSMANPAŞA TRAINING AND RESEARCH HOSPITAL

AHMET SADİ DİZLEK / GAZİOSMANPAŞA TRAINING AND RESEARCH HOSPITAL

Background and aim: Acute mesenteric ischemia (AMI) results from the sudden interruption of blood flow to the intestines, leading to cellular damage and intestinal necrosis. If untreated, it generally leads to death. The incidence of AMI increases with age; in patients aged 75 years and older. The classic presentation of AMI, characterized by "severe, poorly localized abdominal pain that is out of proportion to the physical examination," is becoming less common. Instead, "acute on chronic" presentations of mesenteric ischemia are more typical and often underdiagnosed. In a study, 95% of AMI patients presented with abdominal pain, 44% with nausea, 35% with vomiting, 35% with diarrhea, and 16% with rectal bleeding. This case aims to emphasize the importance of early diagnosis of acute mesenteric ischemia, a life-threatening condition, in patients presenting to the emergency department with common gastrointestinal symptoms such as nausea and diarrhea, which are often associated with mild illnesses.

Case: A 72-year-old female patient presented to the emergency department with abdominal pain, distension, and decreased oral intake along with diarrhea over the past week. She had frequently visited the emergency department in the previous week due to nausea and diarrhea. Physical examination revealed dehydration, significant abdominal distension, and widespread tenderness without guarding or rebound tenderness. Other system examinations and vital signs were normal. Laboratory test revealed a hemogram with WBC: $4.5 \times 10^3/\text{hl}$, hemoglobin: 6.2 g/dl and platelets: $42 \times 10^3/\text{hl}$. Biochemical parameters showed Na: 129 mmol/L, Ca: 8.29 mg/dl, BUN: 46 mg/dl. Total bilirubin: 2.6 mg/dl, CRP: 130 mg/dl and amylase: 112 U/L. Other parameters were within normal limits. Coagulation tests revealed an INR of 1.51, PT% of 52% and aPTT of 32.6 seconds. Computed tomography angiography (CTA) was performed with suspicion of AMI, and the patient was subsequently admitted to general surgery for diagnostic laparotomy.

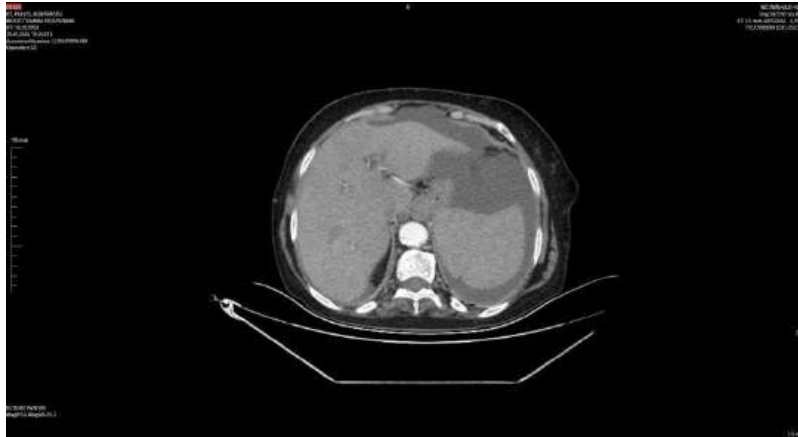
Contrast-enhanced abdominal CT scan ,axial view





Extensive thrombosis filling the main and distal branches of the SMV and portal vein was observed, with notable edema seen in the bowel loops.

Contrast-enhanced abdominal CT scan , axial view 2



There is widespread free fluid present in the perihepatic area, perisplenic area, both paracolic areas, and the pelvic region.

Conclusions: It should be remembered that common symptoms such as nausea and diarrhea may indicate a life-threatening condition. Early diagnosis can significantly reduce morbidity and mortality.

Keywords: CTA, ISCHEMIA, LACTATE, DIARRHEA, PAIN



Ref No: 2206
Pub No: S-107

Substance Use-Associated Cerebral Infarction in a Young Patient

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Background and aim: Heroin is a semi-synthetic substance formed by synthesizing morphine obtained from the poppy plant, which is a member of the opiate class. The frequency of use, especially among young individuals, has increased recently. Heroin has significant effects on the respiratory system, cardiovascular system and central nervous system. In this case, a 26-year-old male patient who was diagnosed with multiple cerebral infarction after consuming heroin with intravenous injection use for 1 year is presented.

Case: A 26-year-old male patient was brought to our emergency department by his family due to confusion that started 1 day ago. The patient's relatives took a history that the patient was drowsy and did not fully answer questions. It was also learned that the patient had been using heroin intravenously for 1 year. Physical examination of the patient: confusional and lethargic, non-oriented, non-cooperative GCS: 13 (Visual: 4, Verbal: 4, Motor: 5) and in the physical examination, the patient had no nystagmus and neck stiffness but had an ataxic gait. The left lower extremity muscle strength was 4/5 and no pathology was detected in the external examination. After 10 days of intensive care follow-up, no findings were detected in the control cerebral computerized tomography performed on the patient other than areas secondary to ischemia. After the improvement in consciousness, the patient was followed up for 1 week in the neurology department and was discharged after 3 weeks with a recommendation for neurology, psychiatry and physical therapy outpatient clinic.

Conclusions: Substance addiction, especially heroin use, can lead to serious health problems and unexpected cerebral infarctions in young individuals. As seen in the case report, the pathophysiological effects of heroin can damage cerebral vessels through a series of mechanisms and cause infarction development.

Keywords: Cerebral Infarction



Ref No: 2274

Pub No:

Aps

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Background and aim: Antiphospholipid syndrome (APS) is an autoimmune disorder characterized by a tendency toward arterial and venous thromboembolism, recurrent miscarriages, and the presence of antiphospholipid antibodies. It is the leading cause of acquired thrombophilia. Venous thromboses often occur in the lower extremities as deep vein thrombosis, pulmonary embolism, and may affect cerebral vessels, resulting in transient ischemic attacks and ischemic strokes. In young female patients, it can lead to pregnancy-related complications. The prevalence in the general population is reported to be between 1-5%. Due to the thrombotic risk, aspirin therapy is recommended.

Case: A 21-year-old female patient presented to the emergency department with complaints of dizziness. Her vital signs were stable: BP 120/80 mmHg, HR 80 bpm. On examination, she was alert, oriented, and cooperative with a Glasgow Coma Scale (GCS) score of 15. Nystagmus was noted, but no neurological deficits were present. An electrocardiogram (ECG) revealed a normal sinus rhythm. Symptomatic treatment was administered, however, the patient's symptoms persisted. A detailed history revealed that she had experienced transient ischemic attacks over the past eight years and had been on 100 mg aspirin, which she had missed for the past week. A brain CT scan and diffusion MRI were requested. The diffusion MRI showed a pontine infarct. The patient was consulted with neurology and admitted. After admission, a rheumatologic panel was requested, and both ANA and APS tests returned positive. The patient was started on warfarin therapy.

Conclusions: It is crucial not to overlook patients without overt symptoms of ischemic stroke and to conduct a thorough neurological examination and detailed medical history. In young patients with transient ischemic attacks or ischemic strokes, conditions such as APS, which predispose to thromboembolic events, should be considered.







Ref No: 2298

Pub No: P-060

LEVEL GIVING HEMORRHAGE

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Background and aim: Headache and nausea account for a significant portion of emergency department visits, but most cases do not involve a serious medical cause. However, some patients present with life-threatening conditions such as brain hemorrhage, stroke, or infection. Imaging techniques are used for differential diagnosis in these cases. Contrast-enhanced brain MRI may be performed to distinguish between brain hemorrhage and abscess.

Case: A 64-year-old male patient presented to the emergency department with complaints of headache, nausea, and slurred speech. His medical history included heart surgeries and surgery for traumatic subdural hematoma. The patient was on blood thinners. A brain CT scan revealed a 3x4 cm hyperdense area in the right cerebellum with surrounding edema. Further examination confirmed acute intracranial hemorrhage, and the patient underwent surgery.

figure 1

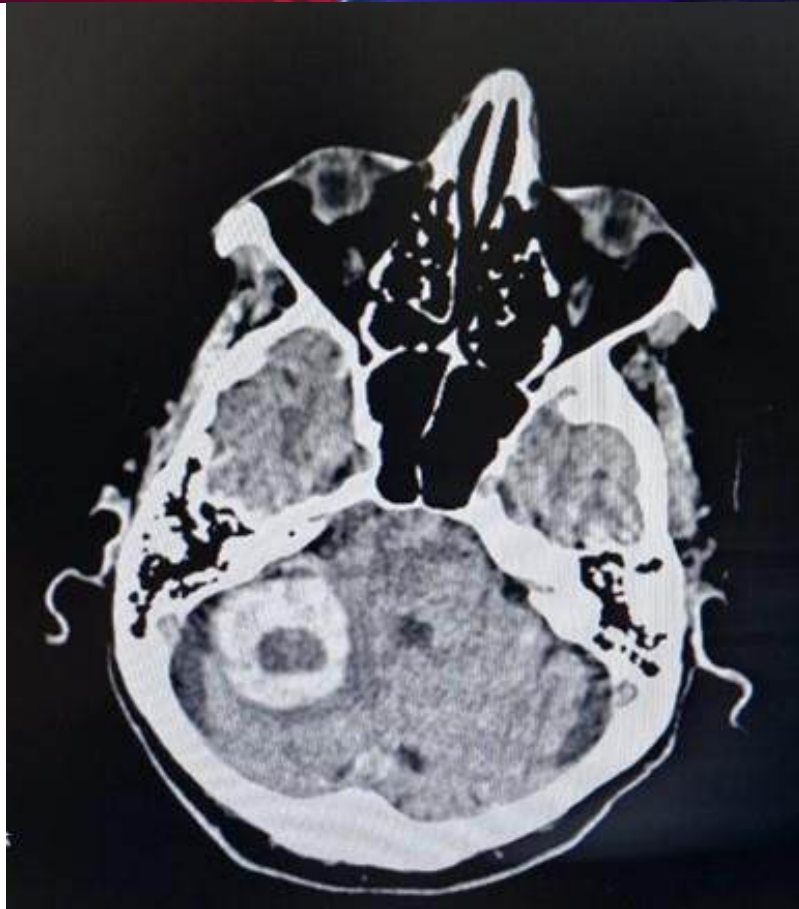


figure 2



figure 3



Conclusions: In conclusion, imaging techniques were used to differentiate between brain hemorrhage and abscess, and the patient was successfully treated. This case highlights a rare condition and draws attention to the hyperacute phase of hemorrhage.

Keywords: Intracranial hemorrhage, Edema, Stroke, Headache, MRI



Ref No: 2371

Pub No: S-106

LERICHE SYNDROME

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Background and aim: Extremity pain is one of the most common causes of emergency room visits and is frequently seen after exercise and trauma. However, when evaluated together with the patient's comorbidity and additional complaints, it is possible to see different diagnoses in the etiology. Leriche syndrome is one of these diagnoses. Leriche syndrome is a disease characterized by thrombotic occlusion of the aorta, most commonly in the distal renal artery. In this article, we present a 70-year-old male patient who presented with leg pain and was diagnosed with Leriche syndrome.

Case: A 70-year-old male patient presented with increasing pain in the legs for 2 months. It was learned that the patient had short distance claudication. He had known hypertension. Physical examination of the patient revealed normal lower extremity capillary refill and bilateral lower extremity distal pulses were detected by vascular hand doppler. Arterial doppler ultrasonography showed monophasic flow in bilateral lower extremities. Subsequently, the patient underwent lower extremity computed tomography imaging and was found to have Leriche syndrome. Computed tomography "No contrast filling was observed in the distal abdominal aorta (total occlusion?). Contrast filling could be observed in both external iliac arteries (due to collateral filling?)."Emergency surgical intervention was not considered by the consultant cardiovascular surgeon. Acetylsalicylic acid 100 mg 1x1, trimetazidine 80 mg 1x1, pentoxifylline 600 mg were prescribed and cardiovascular surgery polyclinic control was recommended.

Conclusions: It should be kept in mind that in extremity pain, which we frequently see in emergency department practice, especially in elderly patients with comorbidities, important diagnoses may be involved in the etiology and additional complaints, anamnesis and physical examination are important in their elucidation. One of these diagnoses is Leriche Syndrome and should be kept in mind in patients presenting with claudication of the legs.

Keywords: leriche syndrome, Extremity pain, claudication



Ref No: 2405

Pub No: P-072

A STORY OF RESISTANT FEVER: MALIGNANT HYPERTHERMIA

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Background and aim: Malignant hyperthermia is a rare genetic syndrome characterized by a hypermetabolic response to commonly used inhalation agents and depolarizing muscle relaxants. It may occur during or after anesthesia. Susceptibility to Malignant Hyperthermia depends on the varying activity of the hereditary autosomal dominant condition. In 50-70% of affected families there is an association between the ryanodine receptor gene on chromosome 19 and Malignant Hyperthermia.

Case: A 59-year-old male patient presented to us with fever and decreased movements. He had schizophrenia and hypertension as known diseases. The drugs he was taking were Tansifa, Vasoxen, akineton, norodol, azopyrine. Arrival vitals Blood pressure: 100/60 mmHg Pulse: 123 beats/min Body temperature: 39.5 °C. On physical examination, the patient was conscious, disoriented and noncooperative. Glasgow Coma Scale:10 Pupils were isochoric +/- no lateralizing findings. In the blood samples, hemogram showed wbc:22.68 microliter (µl), biochemistry showed creatine kinase 13566 IU/L, blood gas pH:7.48 Pco2:26 mm/Hg. No pathologic findings were found on central imaging. The patient was consulted to neurology and infectious diseases and malignant hyperthermia was considered in the foreground. The patient, whose body temperature did not decrease during follow-up and who had arrest, responded to cardiopulmonary resuscitation and dantrolene sodium was started for treatment. The patient did not respond to the treatment and subsequently had arrest again. No response was obtained to proper cardiopulmonary resuscitation and the patient was accepted as exitus.

Conclusions: Malignant hyperthermia (MH) is a life-threatening clinical syndrome of hypermetabolism involving skeletal muscle. In susceptible individuals it is primarily triggered by volatile inhalation anesthetic agents and the muscle relaxant succinylcholine, although other drugs have also been implicated as potential triggers. This hypermetabolism results in increased carbon dioxide production, metabolic and respiratory acidosis, accelerated oxygen consumption, heat production, activation of the sympathetic nervous system, hyperkalemia, disseminated intravascular coagulation (DIC) and multiple organ dysfunction and failure.

Keywords: dantolen sodyum, hipertermi, ryanodin

Ref No: 2537

Pub No: P-042

Are Interventional Procedures Innocent? Necrotizing Fasciitis

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Background and aim: Necrotizing fasciitis (NF) is a rare, rapidly progressing, and life-threatening soft tissue and fascia infection most commonly seen in the extremities. The rapidly spreading infected necrosis frequently leads to septic shock and multiple organ failure. Patients typically require treatment in an intensive care unit. Early antibiotic therapy and surgical debridement are life-saving. The most crucial method to control infection in NF is the early debridement of all necrotic tissues.

Case: A 19-year-old male patient presented to the emergency department with swelling and pain in the right leg following an IM injection. Two days prior, the patient received an IM injection in the right gluteal region at an external facility for an upper respiratory tract infection. Upon admission, his vital signs were recorded as follows: blood pressure 131/99 mmHg, pulse 90 bpm, saturation 96%, and temperature 36°C. The patient had no significant medical history and was not on regular medication. Physical examination revealed widespread edema and crepitus in the right leg, extending from the gluteal region to the right ankle, with areas of ecchymosis and hyperemia. Peripheral pulses in the right leg were minimal. The patient's Glasgow Coma Scale (GCS) score was 15, and neurological examination was normal.

Figure 1



Ecchymosis and Swelling in the Patient's Right Leg

Figures 2



Subcutaneous Gas Shadows Observed on the X-ray (Indicated by Arrows)

Figures 2



Subcutaneous Gas Shadows Observed on the X-ray (Indicated by Arrows)

Conclusions: Necrotizing fasciitis is a rapidly progressing, life-threatening infection involving soft tissues and fascia. Without proper diagnosis and treatment, it can result in high mortality rates. Early serial debridement and appropriate antibiotic therapy are critical in controlling the infection and are life-saving interventions.

Keywords: Necrotizing Fasciitis, Intramuscular Injection, Sepsis



Ref No: 2565

Pub No: S-024

A Rare Reason of Severe Hypokalemia: Thyrotoxic Periodic Paralysis

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Background and aim: Hypokalemia is the most common electrolyte disorder which should be managed immediately in the emergency department (ED) since may weaken respiratory musculature and heart conduction rate and speed. We presented a thyrotoxic periodic paralysis (TTP), admitted with muscular paralysis in ED in this case.

Case: A 29-year-old caucasian male patient was admitted to our hospital who had muscular paralysis in both side of his arms and legs. He had been complaining of profound muscle weakness since the morning. He had no fever, heart rate was 80-90/minute, blood pressure was 132/75 mmHg, and respiratory rate was 17/minute. He was oriented and cooperative. In his neuromuscular examination, bilateral upper and lower extremity strength was found to be 2-3/5. The patient's sensory examination was normal, but deep tendon reflexes were found to be decreased. Troponin T levels were measured as 577-1952-1722, respectively. Serum potassium level was 1.2 mM, normal sodium of 137 mM, normal magnesium, and normal C-reactive protein (CRP) <3mg/L. Thyroid-stimulating hormone (TSH) was lower than $<0.01 \times 10^{-3}$ IU/L, free thyroxine (fT4) and total triiodothyronine (T3) were measured at 66.4 pM (reference interval (RI): 12.0–22.0 pM) and 9.3nM (RI: 1.0–2.6nM), respectively. Electrocardiogram (ECG) showed prolongation of the P-R interval and nonspecific T wave changes. Atrial and ventricular rate 90/minute, PR interval 165 ms (milliseconds), QRS duration 105 ms and QTc 480 ms. Following treatment, muscle strength improved and potassium replacement was discontinued after control serum potassium measured normal.

Conclusions: TPP should be considered when sudden paralysis and thyrotoxic symptoms. Elevated Troponin level in patients with thyrotoxicosis is clinically very important and may predict poor cardiovascular prognosis. Further studies on cardiac effects in patients with TTP are needed.

Keywords: Thyrotoxic periodic paralysis, Hypokalemia, Graves' disease, elevated troponin



Ref No: 2576

Pub No: S-030

Iatrogenic systemic botulism: An extreme case and a review of diagnosis and treatment

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Background and aim: Botulism is caused by toxins produced by *Clostridium botulinum*, entering the circulation through wounds, the gastrointestinal tract, inhalation, or injection. It primarily presents with neurological symptoms, characterized by symmetric descending paralysis and autonomic dysfunction. Initial non-specific symptoms include nausea, abdominal pain, weakness, dizziness, and dry mouth, followed by blurred vision, diplopia, ptosis, extraocular muscle weakness, dilated pupils, dysarthria, and dysphagia. In severe cases, it can progress to respiratory failure. This case highlights iatrogenic systemic botulism after a high-dose botulinum toxin injection for an unusual indication. The aim is to review botulism's clinical presentation, diagnosis, and treatment while raising awareness of the increasing incidence.

Case: A 61-year-old female received an injection of 1000 U botulinum neurotoxin serotype A (Dysport®) into her abdominal muscles for back pain. After 7-8 days, she developed hoarseness, slurred speech, difficulty swallowing, double and blurred vision, shortness of breath, and difficulty walking. Her weakness worsened, and after two weeks, she could no longer support her head. Her vitals were stable. Physical examination revealed hypophonic speech and muscle strength of 4/5 in the upper and 3/5 in the lower extremities. Laboratory results were normal. The patient received supportive care and botulinum antitoxin (BAT). The BAT dosage and infusion rate are shown in Table 1. After 5 days in the intensive care unit, her treatment continued in the neurology ward and physical medicine and rehabilitation department. She was discharged for outpatient follow-up.

Table 1: BAT dosage guidelines and intravenous infusion rate

Patient group	Dose	Initial infusion rate (first 30 min.)	If tolerated, increased infusion rate (within 30 min.)	Maximum infusion rate
Adult (≥17 years)	1 vial	0.5 mL/min	Double the rate	2 mL/min
Pediatric (1-17 years)	20% to 100% of the adult dose	0,01 mL/kg/min	0,01 mL/kg/min	0,03 mL/kg/min



		Do not exceed the adult rate		Do not exceed the adult rate
Infant (<1 year)	10% of the adult dose	0,01 mL/kg/min	0,01 mL/kg/min	0,03 mL/kg/min
Pediatric dosage is adjusted according to body weight.				

Conclusions: Suspected iatrogenic botulism requires close monitoring with airway, respiratory, and circulatory support. Intubation and mechanical ventilation may be necessary in cases of respiratory failure. The only specific treatment is BAT, which should be administered promptly to prevent paralysis and respiratory complications. Iatrogenic botulism is increasingly common and life-threatening, requiring early recognition and intervention in emergency settings. Emergency physicians must promptly consider botulism and initiate BAT when indicated.

Keywords: antitoxin, botulism, Clostridium botulinum, iatrogenic botulism





Ref No: 2633
Pub No: P-041

Pulmonary Embolism in Pregnancy

Enes Ferhatlar¹

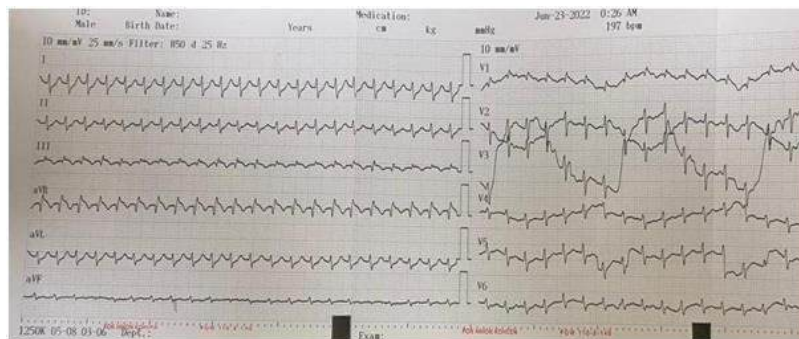
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Background and aim: Pulmonary embolism (PE) is a common cardiovascular emergency, and PE large enough to cause hemodynamic instability is an important cause of maternal death.¹ In order to suspect PE, it is necessary to reveal predisposing factors such as pregnancy, oral contraceptive use, coagulation disorders in patients, and the diagnosis of pulmonary embolism during pregnancy is difficult. We present a case of 26 weeks pregnant PE.

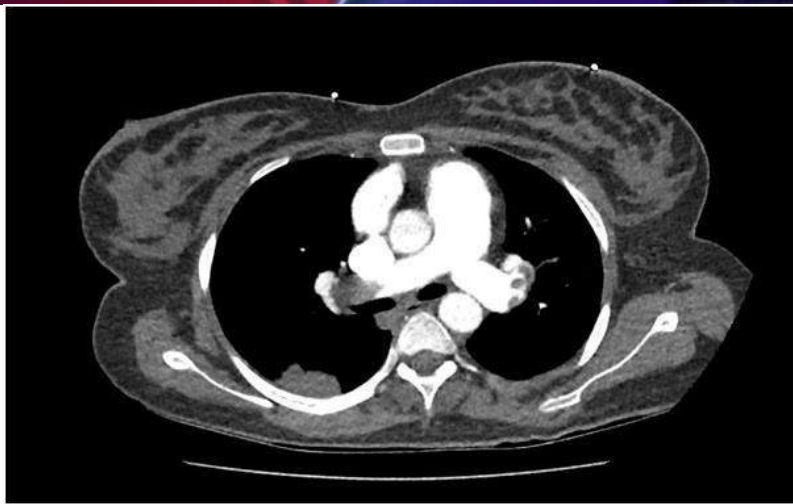
Case: A 26-year-old woman was admitted to our emergency department with the complaints of 24-25 weeks of pregnancy, sudden onset of shortness of breath, nausea and vomiting. The patient, who was conscious, cooperative and oriented, had a history of essential thrombocytosis. At admission, her blood pressure was 90/60 mmHg, heart rate was 190 bpm, oxygen saturation was 92%, and fever was 36.3%. On physical examination, there was edema and temperature increase in the left leg, and peripheral pulses were detected. In the patient's electrocardiogram (ECG), sinus tachycardia, S1Q3T3 pattern, and inverted T waves in V1-V2-V3 were present. (Figure 1) In the CT pulmonary angiography, filling defect compatible with massive pulmonary embolism was observed in bilateral pulmonary arteries, all lobar branches and segmental branches. Pulmonary infarction was observed in the right lung lower lobe superior segment. (Figure 2)

Figure 1



ECG of patient

Figure 2



Pulmonary CT angiography of patient

Conclusions: When PE is not diagnosed and treated early, maternal or infant mortality is clinically high. Although the diagnostic strategy for PE during pregnancy is a controversial issue, imaging should be performed promptly if there is a high risk for cardiac and respiratory symptoms.

Keywords: Pulmonary Embolism, Pregnancy, Emergency Department

Ref No: 2634
Pub No: P-032

Isolated Inferior Sagittal Sinus Infarction

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Background and aim: Cerebral venous thrombosis (CVT) is a very rare type of stroke that is mostly seen in young patients. Most of these cases are caused by thrombosis of the upper sagittal sinus and transverse sinus. Isolated thrombosis of the lower sagittal sinus is very rare. We report a 54-year-old male patient who presented to the emergency department with loss of consciousness and no medical history. Our aim in this study is to draw attention to sinus vein thrombosis, which is rarely seen in patients presenting with neurological symptoms and to lower sagittal sinus thrombosis, which is very rare in patients with sinus vein thrombosis even in the literature.

Case: 54 years old male patient was admitted to the emergency department with sudden loss of consciousness and complete syncope clinic about one hour ago. blood pressure 130/70 saturation 96 blood glucose 97 ECG was normal sinus rhythm. neurological examination: pupils mid dilated light reflex could not be obtained 4 limb pull response with pain, no lateralizing motor deficits were detected. Brain CT showed no acute neuropathology and brain CT angiography showed clear main vascular structures. Diffusion MR showed bilateral thalamic and mesencephalic infarction. Contrast brain MR venography showed inferior sagittal sinus infarction (image 1)

image 1





Conclusions: CVT is a rare condition compared to arterial occlusive diseases of the brain. The processes leading to the development of thrombus in the cerebral venous system are no different from those applied to other peripheral venous systems of the body. Venous stasis, acquired or hereditary thrombophilia, inflammatory or infectious processes involving the vein or venous sinus walls are the most important causes of thrombosis. In patients with sinus vein thrombosis, thrombosis in the upper branch is most common, but in this case, inferior sinus vein thrombosis, which is much rarer than ischemic stroke due to arterial occlusive diseases, has been observed.

Keywords: Sinus vein thrombosis, inferior sagittal sinus infarction



Ref No: 2875
Pub No: P-131

Air Embolism

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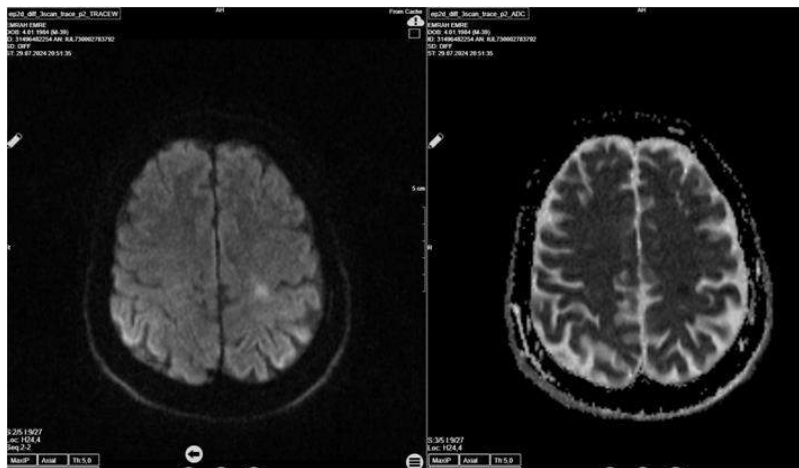
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Background and aim: Air embolism is a rare but potentially devastating event that occurs as a result of air entering the vascular system. Patients may present to the hospital in a wide variety of non-specific ways. In our case report, we aim to present one of these cases presenting with neurological deficit and how it was managed in the Emergency Department.

Case: A 41 year old male patient diagnosed with known diabetes and hyperlipidemia was admitted to the ED with weakness in his right extremities. During ozone therapy, practitioner noticed air entering through the intravenous line and the patient's complaints appeared after that. The patient's vital signs were stable and muscle strength in the right extremities was assessed as 1/5, while muscle strength in the left extremities was intact. The patient immediately underwent brain CT, brain MRI, diffusion MRI and routine blood tests. In the diffusion MRI, grayform-style diffusion restriction areas were seen in the left parieto-occipital region. The patient was placed in the Trendelenburg position and consulted to the neurology and underwater and hyperbaric medicine department. During the follow-up, it was observed that the patient's muscle strength had started to return. The underwater and hyperbaric medicine department stated there was no need for hyperbaric oxygen therapy due to the regression of the patient's neurological deficit. The neurology department recommended that the patient be kept under observation for 10 hours and that a control diffusion MRI be performed at the end of observation. At the end of the patient's follow-up period, muscle strength was observed to be intact in all extremities and no pathology was detected in the control diffusion MRI. The patient, who had no additional complaints or pathological findings, was discharged.

Diffusion MRI



Control Diffusion MRI



Conclusions: We shared our experiences in management of air embolism. Emergency department physicians should not forget how vital even just positioning is.

Keywords: air embolism, neurologic deficit, Iatrogenic embolism



Ref No: 2953

Pub No: S-105

Patient Presenting to the Emergency Department with Minor Trauma and Tetraparesis: Central Cord Syndrome

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Background and aim: Central cord syndrome is the most common type of incomplete spinal cord injury, often resulting from cervical hyperextension trauma, particularly in elderly patients with a narrowed cervical spinal canal. This article explores the potential for spinal cord syndrome to develop from minor trauma and how alcohol consumption can delay diagnosis in such cases.

Case: A 59-year-old male with a history of diabetes was admitted to the emergency department after a fall from the same level following alcohol consumption. His Glasgow Coma Scale (GCS) score was 14, and he exhibited limited orientation and cooperation. Vital signs included a blood pressure of 130/75 mmHg, pulse of 83 bpm, SPO2 of 98%, and blood glucose of 130. Due to impaired cooperation, the initial motor and sensory exam was limited, with no cervical sensitivity observed. During follow-up, partial orientation was regained, revealing decreased muscle strength in all extremities, hyperactive deep tendon reflexes, and bilateral positive Hoffman's sign. The patient also experienced urinary retention with a palpable bladder. With a preliminary diagnosis of central cord syndrome, the patient was admitted to the ward and underwent posterior cervical stabilization surgery by the neurosurgery department. **DISCUSSION:** Aging-related structural changes, including disc degeneration and osteophyte formation, contribute to spinal cord injury risk. Symptoms of central cord syndrome include upper extremity weakness, varying sensory loss below the lesion, preserved sacral sensation, and sphincter dysfunction such as urinary retention. The patient's muscle strength loss and severe neurological deficits prompted a posterior cervical stabilization surgery.

Image 1(A/B): Non-contrast cervical CT scan of the patient taken in the emergency department.



(A) It measures 8.5 mm at the level of the C3 vertebra

Image 1(A/B): Non-contrast cervical CT scan of the patient taken in the emergency department



Narrowing is observed at the C4 level.

Image 2(A): Preoperative contrast-enhanced cervical MRI of the patient.



(A) Bone marrow edema at the inferior endplates of C4 and C5, and the superior endplate of C6.

Conclusions: Central cord syndrome, typically associated with high-energy trauma, can also arise from minor trauma exacerbated by anatomical spinal canal stenosis and factors like alcohol use, which may impair patient orientation and cooperation. Prompt emergency observation and repeated examination are crucial for accurate diagnosis in these situations.

Keywords: central cord syndrom, hyperextension, spinal cord injury



Ref No: 3043

Pub No: P-104

SUBCUTANEOUS EMPHYSEMA OF THE ABDOMINAL WALL DUE TO Fournier GANGRENE: CASE REPORT

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Background and aim: Necrotizing soft tissue infections (NSTIs) are infections of polymicrobial origin with a rapid course and systemic toxicity. NYDE extending to the perineal, perianal and genital regions are defined as Fournier's Gangrene (FG). In this case report, we present a 62-year-old male patient with subcutaneous emphysema in the abdominal wall due to early stage Fournier's gangrene caused by perianal abscess.

Case: A 62-year-old male patient was admitted to our emergency department with complaints of abdominal pain and deterioration in his general condition for about 1 week. He had a history of a red, painful, hard swelling forming in the perianal region a while ago and a foul-smelling yellow-grayish discharge was present in that region. On physical examination, there was severe tenderness and guarding in the right upper and lower quadrants of the abdomen even with mild palpation, and subcutaneous crepitation under the skin extending to the right flank region. Right costovertebral angle tenderness was positive. Rectal examination revealed a hard erythematous swelling in the right perianal area without fluctuation, and two fistula holes in the 7 o'clock quadrant of the anal sphincter with purulent discharge. The patient was consulted with general surgery with a preliminary diagnosis of necrotizing soft tissue infection originating from the perianal region and was admitted to the intensive care unit. Surgical debridement was performed after hospitalization. The patient died on the 4th day of intensive care unit hospitalization.

Conclusions: In our case, the skin in the perianal and genital area of the patient was not necrotized and ulcerated, but the infection had spread from the perianal area to the abdominal wall. Keeping the possibility of FG in mind in patients with perianal or urogenital pathologies presenting to the emergency department with mild skin findings, early detection of the disease and clinical suspicion are vital for patient survival.

Keywords: Fournier, EMPHYSEMA, SOFT TISSUE INFECTIONS



Ref No: 3083

Pub No: S-031

Abdominal aortic aneurysm rupture in a patient who presented to the emergency department with left testicular pain

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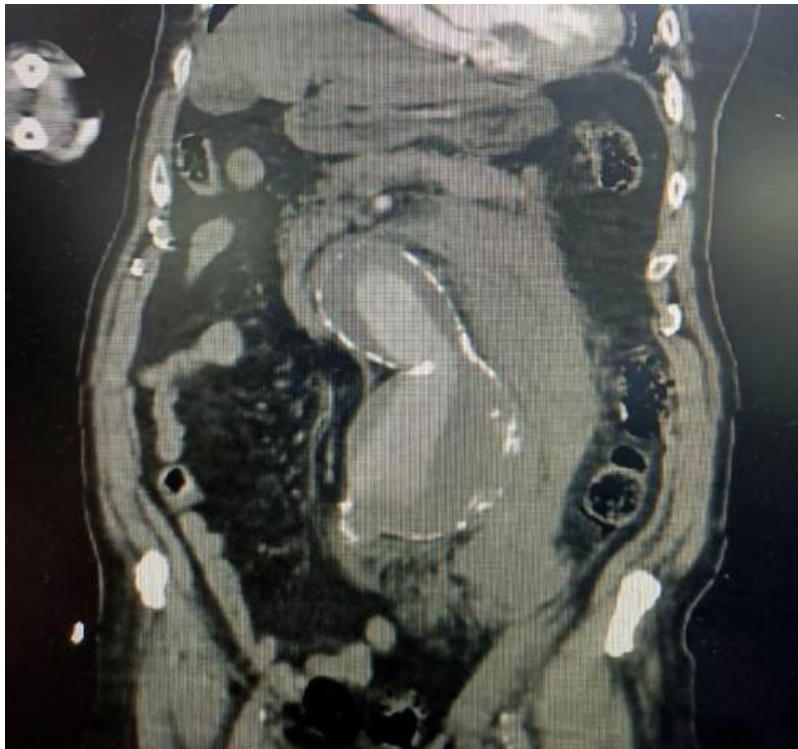
Background and aim: Abdominal aortic aneurysm (AAA) is an aneurysm diameter larger than 3 cm. Most abdominal aortic aneurysms are asymptomatic until they rupture, and the clinical course may be atypical after rupture. It may be difficult for patients who present to the emergency department with atypical symptoms to receive a correct diagnosis in the busy emergency room. Diagnosis must be made without delay, especially since it causes sudden deaths.

Case: Case: A 76-year-old male patient was admitted to the emergency department as an outpatient with the complaint of severe left testicular pain that started suddenly about two hours ago. The patient was agitated with GCS: 15, general condition moderate, body temperature: 36,5 °C, pulse: 86, TA: 154/86 mmHg. The patient had hypertension in his medical history. No edema, color change or temperature increase was observed in the testicles. Computed tomography angiography was requested due to suspicion of abdominal aortic aneurysm rupture. In the abdominal CT angiography performed on the patient; The abdominal aorta measured 8,5 cm at its widest point. Diffuse calcification and mural thrombi were observed on the wall. A hematoma (ruptured aneurysm) extending from around the aorta to the pelvis was observed (image 1-2). The patient was consulted to the cardiovascular surgery department. During emergency observation, the patient began to become hypotensive. Intravenous hydration was started and the patient was transferred to the operating room for emergency surgery.

image 1



image 2



Conclusions: Conclusions: Abdominal aortic aneurysm ruptures can be fatal in a short time if the diagnosis is missed. It is vital to consider abdominal aortic aneurysm rupture in the differential diagnosis in emergency departments, especially in patients presenting with atypical symptoms.



Keywords: Abdominal aortic aneurysm, aneurysm rupture, Emergency medicine



Ref No: 3150

Pub No: S-080

Postpartum Dyspnea and Cardiomyopathy Following Cesarean Section: A Rare Case

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Background and aim: Dyspnea in the postpartum period can be indicative of serious cardiopulmonary pathologies. Postpartum cardiomyopathy (PPCM) is a rare but potentially life-threatening condition. This case report presents the clinical course and management of a 28-year-old woman diagnosed with postpartum cardiomyopathy after presenting with dyspnea following a cesarean section.

Case: A 28-year-old woman, four days postpartum after a cesarean section, presented to the emergency department with complaints of worsening dyspnea. She had previously experienced mild cough after discharge, which had intensified over the past two days. The patient had no known chronic medical conditions. On presentation, the patient's vital signs were as follows: body temperature 36.9°C, heart rate 120 bpm, blood pressure 157/106 mmHg, respiratory rate 26/min, and oxygen saturation 93% with a reservoir mask. Physical examination revealed decreased breath sounds bilaterally with minimal crackles. Laboratory tests showed an elevated D-dimer level of 10.57 µg/mL, lactate 3.7 mmol/L, white blood cell count 13,700/µL, hemoglobin 10.6g/dL, platelet count 306,000/µL, creatinine 0.57mg/dL, and C-reactive protein(CRP) 54mg/L. Pulmonary CT angiography ruled out embolism but revealed right-sided 4 cm and left-sided 2cm pleural effusions, along with bilateral ground-glass opacities suggestive of pulmonary edema. Electrocardiogram(ECG) showed no ischemic changes, and echocardiography revealed a left ventricular ejection fraction (LVEF) of 30%, global hypokinesia, and bilateral pleural effusions. High-flow nasal oxygen(HFNO) therapy was initiated. However, due to worsening respiratory status, the patient was intubated using rapid sequence intubation(RSI). The diagnosis of postpartum cardiomyopathy was confirmed, and the patient was admitted to the coronary care unit for further management.

Conclusions: This case illustrates the diagnostic and management approach in a postpartum patient presenting with dyspnea, where pulmonary embolism was ruled out and a diagnosis of postpartum cardiomyopathy was made. Although postpartum cardiopulmonary complications are rare, they can be life-threatening and carry significant mortality risks. Early diagnosis and prompt treatment are critical in improving patient outcomes.

Keywords: pulmonary edema, postpartum cardiomyopathy, postpartum dyspnea



Ref No: 7603

Pub No: S-255

Tremor-induced electrocardiographic artifact mimicking ventricular tachycardia

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Background and aim: A 78-year-old woman was misdiagnosed with ventricular tachycardia (VT) due to tremor-associated electrocardiography (ECG) artifacts. This case underscores the importance of distinguishing between true arrhythmias and artifacts to avoid unnecessary interventions and ensure accurate diagnosis.

Case: A 78-year-old female patient presented with cough, weakness, and general unwellness. During the initial evaluation at an outside facility, an ECG showed VT (Figure 1), leading to the administration of 150 mg IV amiodarone. The patient was referred for a cardiology consultation. Sinus rhythm was seen on ECG taken upon arrival at our facility (Figure 2). The patient had been experiencing tremors for approximately 5 years, but they had not been previously investigated. Apart from these issues, the patient had no other medical conditions or medication use. The physical examination showed high-amplitude resting tremors, normal vital signs, and no other abnormalities. Peripheral pulses were clear and rhythmic, with no additional heart sounds. Emergency bedside echocardiography, radiological, and laboratory tests, including cardiac enzymes, were all normal. All ECGs were reviewed in detail due to the absence of arrhythmias. The ECG showed sinus rhythm with tremor-related artifacts. Initial leads seemed suspicious for VT, but narrow QRS waves indicated a 4 Hz parkinsonian resting tremor (Figure3). It was concluded that the presentation was not VT but tremor-mimicking VT. Thus, VT was ruled out, the ECG was deemed an artifact, and the patient was discharged.

Figure 1

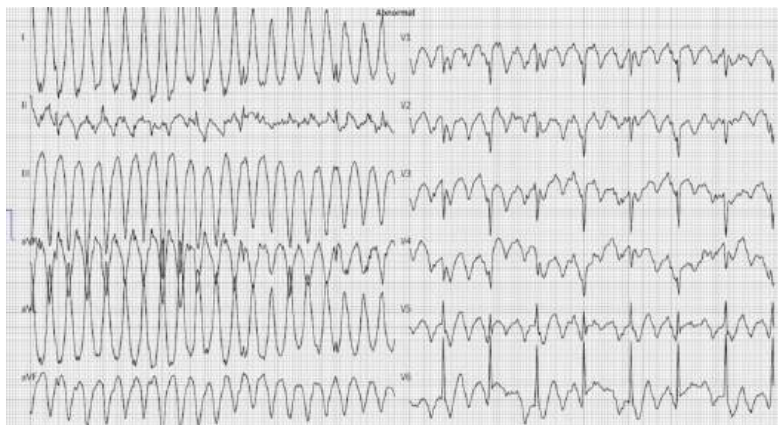




Figure 2

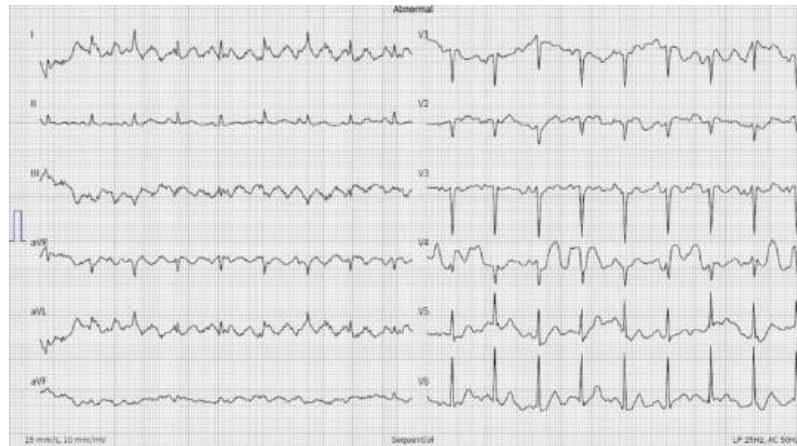
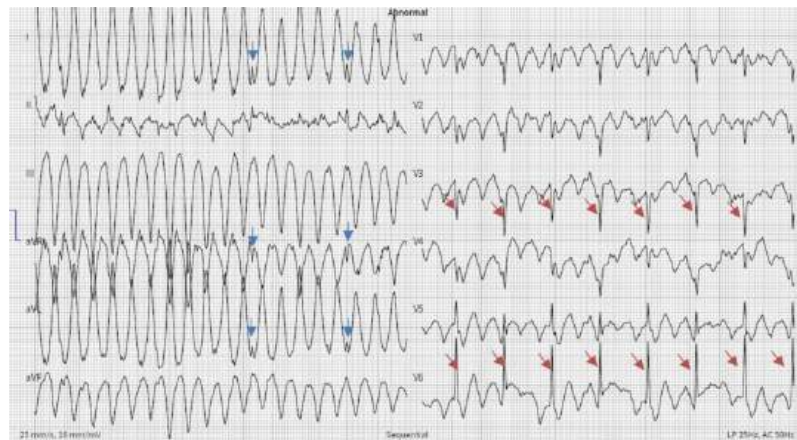


Figure 3



Conclusions: Tremor-induced ECG artifacts can mimic VT, leading to unnecessary interventions and are often challenging to detect, especially in asymptomatic settings. Thorough clinical evaluation, including repeated ECGs and correlation with clinical symptoms, is essential to avoid misdiagnosis. In this case, the patient's tremors led to ECG artifacts misinterpreted as VT, but recognizing them prevented unnecessary treatments.

Keywords: Emergency department, electrocardiography, ventricular tachycardia



Ref No: 3153

Pub No: S-002

Mesenteric Ischemia or STEMI? A Case of Diagnostic and Therapeutic Challenges

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Background and aim: Acute myocardial infarction and mesenteric ischemia are both critical conditions that necessitate precise and prompt management. When these conditions occur concurrently, they present significant diagnostic and therapeutic challenges. This case highlights the complexities involved in diagnosing and treating patients with STEMI, particularly when accompanied by less common pathologies like mesenteric ischemia. The importance of a comprehensive evaluation and multidisciplinary approach in such scenarios is underscored.

Case: A 64-year-old male was transferred to our ED with inferolateral STEMI. He had received thrombolytics initially but continued to experience worsening chest pain over three days, worsened after meals. Due to a mental disability, he had difficulty expressing himself and had no known medical history or regular medications. Upon arrival, his vital signs were: blood pressure 162/61 mmHg, heart rate 120/min, respiratory rate 25/min, and oxygen saturation 85% despite therapy. He appeared toxic with a GCS score of 15, bilateral rales, pretibial edema, and diffuse abdominal tenderness. The electrocardiogram confirmed an inferior STEMI pattern. Arterial blood gas analysis revealed pH 7.37, PaO₂ 88, PaCO₂ 14, HCO₃ 8, and lactate 8.6. Management included intravenous isotonic saline, ceftriaxone 2 grams, and high-flow oxygen. Point-of-care ultrasound showed minimal pericardial effusion and preserved cardiac contractility (ejection fraction 50%). Thoracic and abdominal CT angiography revealed no major vascular abnormalities but indicated heterogeneous fat density and air densities in the intestinal wall, suggestive of mesenteric ischemia. Following evaluation, immediate PCI was deferred due to prior thrombolytics, and the patient was transferred to the surgical team for emergency surgery to address mesenteric ischemia.

Conclusions: This case highlights the necessity of detailed diagnostic workup in patients presenting with STEMI, particularly when additional conditions like mesenteric ischemia are suspected. The rarity of concurrent myocardial and mesenteric ischemia underscores the need for a thorough and multidisciplinary approach to ensure optimal management and treatment outcomes.

Keywords: Mesenteric Ischemia, STEMI, Diagnostic Challenges



Ref No: 3247

Pub No: P-107

CEREBROVASCULAR STROKE MIMIC: A CASE OF HEMIPLEGIC MIGRAINE

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Background and aim: Migraine is a genetically influenced complex neurological disorder characterized by moderate to severe headache attacks, usually unilateral and often accompanied by nausea and increased sensitivity to light and sound. Hemiplegic migraine is a rare type of migraine in which migraine headache attacks are accompanied by unilateral weakness. In this case, we will present a case of sporadic hemiplegic migraine in a 40-year-old male patient who presented with hemiplegic complaints.

Case: A 40-year-old male patient presented to the emergency department with complaints of unilateral weakness, headache, and nausea. The patient's history stated that he had a headache for approximately 24 hours, that he had a headache between 12:00 and 02:00 the previous night with a Visual Pain Scale of 10/10, which started to decrease later but continued, that photophobia and nausea were added, and that his unilateral weakness began at around 12:00 in the afternoon on the same day, and that he felt like an earthquake at that time. There was no pathology in the laboratory tests. The patient was evaluated by neurology and hospitalized for further examination and treatment. There was no abnormality in the contrast and non-contrast MRI, Carotid Doppler Ultrasonography and EEG scans performed during the hospitalization. It was learned that the motor weakness had returned approximately 24 hours later. The patient was given suggestions and a neurology outpatient clinic check-up was recommended.

Conclusions: Although migraine is a headache type that often responds to analgesics, it may be associated with sporadic hemiplegic migraine in some people and familial hemiplegic migraine in others. A detailed neurological examination and detailed tests are required to diagnose sporadic hemiplegic migraine.

Keywords: migraine, hemiplegic migraine



Ref No: 3267

Pub No: P-157

Patients Applying To The Emergency Department With Bleeding and Having a History of New Generation Anticoagulant Use: A Case Series

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Background and aim: Oral anticoagulant (OAC) therapies are commonly used methods for the prevention of thrombosis and thromboembolism. Warfarin, a vitamin K antagonist, has long been the corner stone of standard OAC therapy. In recent years, new-generation OAC therapies have been developed and introduced in to clinical practice. While these new-generation OAC agents offer advantages such as not requiring regular monitoring of hemostatic parameters and demonstrating efficacy similar to that of warfarin, bleeding complications can still occasionally occur in these patients. This case series is presented to draw attention to the bleeding complications that may be seen in patients receiving new generation OAC therapy and the management of these complications.

Case: The frequency of emergency department visits due to bleeding associated with new-generation OACs is increasing. One of our cases involved a patient who presented to the emergency department with wide spread abdominal bleeding following rivaroxaban use. The patient was discharged after follow-up. The second case involved a patient who presented with spontaneous splenic rupture after using apixaban. Evaluation revealed signs of shock, and bleeding was controlled through splenectomy performed by the general surgery team. The patient's post-splenectomy follow-up was unremarkable, and they were discharged for outpatient follow-up. The third case was a 75-year-old male with atrial fibrillation on rivaroxaban who presented to the emergency department with hematuria. Evaluation revealed a decrease in hemoglobin levels; the patient was admitted to the urology department, and following a change in medication, he was discharged without further bleeding.

Conclusions: With the increasing use of new-generation OACs, there is a not able rise in the incidence of bleeding, which is one of the most significant complications associated with these agents. These bleeding events can range from min or to life-threatening major hemorrhages. The importance of early diagnosis and treatment in managing the patient's hemodynamic status should not be overlooked.

Keywords: New generation, Bleeding, Anticoagulant, Complication



Ref No: 3271
Pub No: P-040

Pulmonary Embolism in A Patient Presenting with Syncope and Nausea

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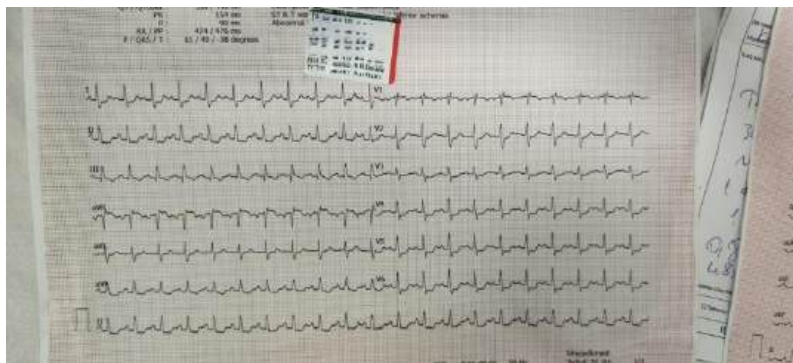
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Background and aim: Pulmonary embolism (PE) is the second leading cause of sudden death in patients presenting to the emergency department. Most of the deaths occur within the first few hours of presentation to the emergency department due to inadequate and delayed diagnosis. The variability in the clinical picture of patients presenting with suspected PE requires the clinician to consider many diseases in the differential diagnosis and leads to various difficulties in making a diagnosis for the patient. Many people who present to emergency departments with PE die because of inadequate diagnosis. Many of the deaths caused by PE can be prevented with appropriate diagnosis and treatment. Our aim in this study is to draw attention to the importance of the diagnostic approach of life-threatening PE cases in patients presenting to the emergency department with nonspecific symptoms such as syncope and stomach pain.

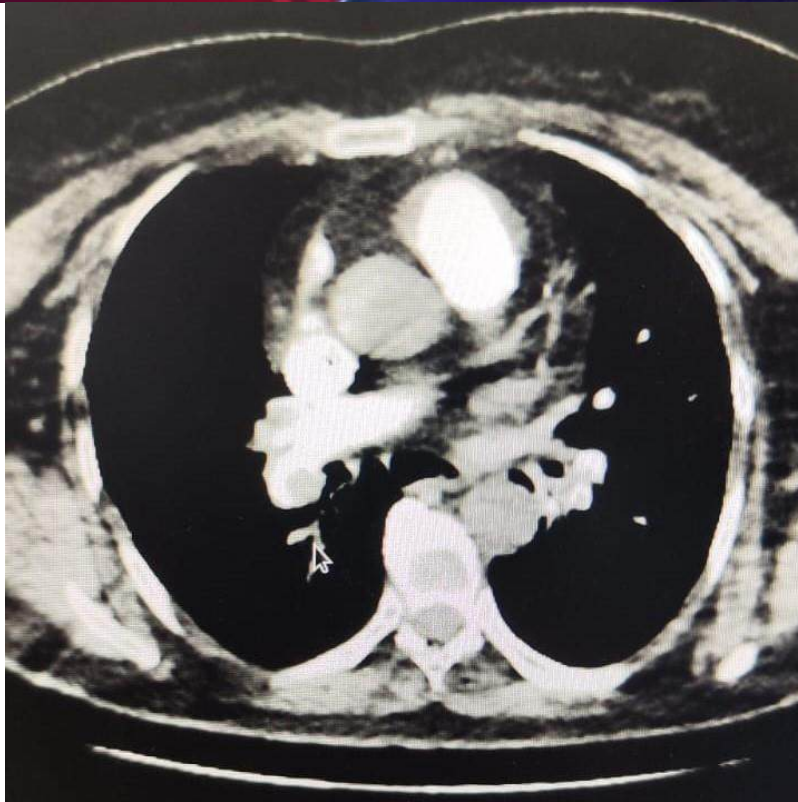
Case: A 66-year-old woman with no known history of chronic disease presented to the emergency department with sudden onset of cold sweating, stomach pain, nausea and complete syncope half an hour ago. On admission, blood pressure was 90/60 mm/Hg, saturation was 80 on room air, pulse rate 125/min, respiratory rate: 24/min, fingertip blood glucose was 137. GCS was 15 and no abnormality was found in other system examinations. ECG revealed sinus tachycardia and S1Q3T3 pattern (Figure1). When the anamnesis was deepened, it was learned that the patient had syncope after a long journey (>15 hours). Pulse rate: 125/min, hypoxic, hypotensive and known to have traveled for a long time, Wells score was 6. Pulmonary CT angiography was performed with a prediagnosis of PE and filling defects were observed in segmental subsegmental branches leading to both lower lobes (Figure 2).

Figure 1



ECG of the patient at admission

Figure 2



Filling defect in segmental subsegmental branches to both lower lobes on pulmonary CTA.

Conclusions: If there is clinical suspicion in patients presenting with syncope, serious pathologies such as PE should be considered in the differential diagnosis.

Keywords: Pulmonary embolism, Syncope, Emergency department



Ref No: 3360

Pub No: P-136

ONCOLOGICAL EMERGENCY: MALIGNANT HYPERCALCEMIA

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Background and aim: Oncological emergencies encompass urgent clinical disorders arising from cancer or its treatment, including metabolic, neurological, cardiovascular, hematological, and infectious issues. Patients may experience these emergencies at any point during their treatment. Among them, malignant hypercalcemia is a common metabolic emergency.

Case: A 42-year-old female patient presented to the emergency department with complaints of weakness, nausea, vomiting. Her medical history revealed a diagnosis of metastatic squamous cell carcinoma (SCC) of the tongue six months prior, and she was receiving active chemotherapy. On physical examination, her general condition was moderate, and she was somewhat drowsy, with a GCS score of 12-13. Vital signs showed blood pressure: 130/90 mmHg, temperature: 36.7 °C, pulse: 119 bpm, and saturation: 99%. An ECG revealed sinus rhythm. Blood tests indicated WBC: $4.2 \times 10^3/\mu\text{L}$, HGB: 12 g/dL, Platelets: $230 \times 10^3/\mu\text{L}$, BUN: 18 mg/dL, Creatinine: 0.97 mg/dL, AST: 20 U/L, ALT: 18 U/L, Sodium: 129 mmol/L, Potassium: 4 mmol/L, Albumin: 30 g/L, Calcium: 14 mg/dL, and corrected calcium: 15.1 mg/dL. The patient was diagnosed with malignant hypercalcemia and treatment was initiated with hydration and diuretics. During her follow-up in the emergency department, the patient was referred to internal medicine for hospitalization. In the internal medicine unit, zoledronic acid (zoledronate) 4 mg was administered, resulting in normalization of her calcium levels.

Conclusions: Hypercalcemia affects one-third of oncology patients, with malignancy being the most common cause for hospitalization. Symptoms can be subtle, including bone pain and altered consciousness, and may lead to EKG changes such as QT interval shortening. Early treatment is crucial due to the high morbidity and mortality rates associated with malignancies. Initial management involves hydration, with isotonic saline infused at 200-300 ml/hour for calcium levels above 14 mg/dL. Loop diuretics may enhance calcium excretion, while thiazide diuretics are contraindicated. Bisphosphonates, especially zoledronate, are effective treatments for malignant hypercalcemia, demonstrating 90-100% efficacy. This case underscores the importance of recognizing and treating malignant hypercalcemia promptly in cancer patients.

Keywords: oncology



Ref No: 3408

Pub No: P-085

Early diagnosis and treatment of ramsay hunt syndrome in a 95-year-old: a case report

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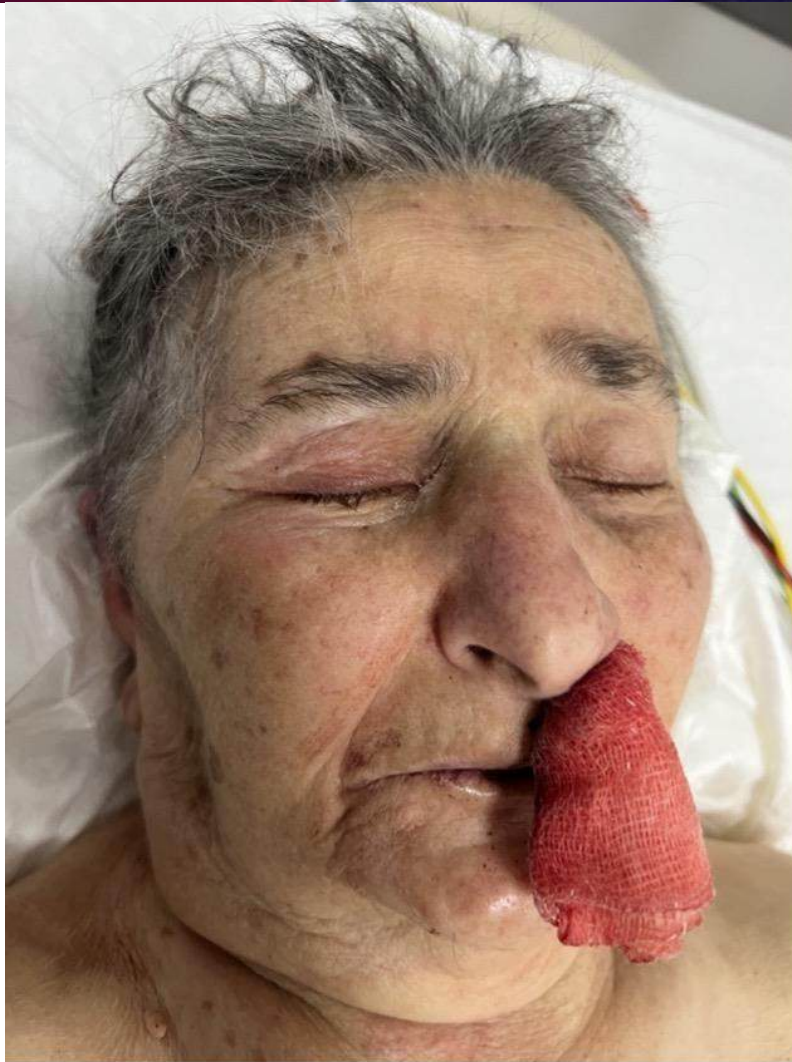
Background and aim: Ramsay Hunt Syndrome (RHS) is a rare syndrome, described by J. Ramsay Hunt in 1907, accompanied by acute peripheral facial paralysis, ipsilateral periauricular and/or intraoral vesicular lesions. Peripheral facial paralysis observed in RHS usually heals late and with sequelae. Early diagnosis and treatment correlate with recovery rates.

Case: In our case, a 95-year-old female patient applied to the emergency room with RHS symptoms and showed almost complete recovery on the second day of treatment.

vesicular lesions



rapid recovery of facial paralysis after treatment



Conclusions: In cases with facial paralysis, the history should be detailed, physical examination should be performed in detail and RHS should be kept in mind. As in our case, the importance of early diagnosis and treatment should not be forgotten in order not to cause morbidity in the patient.

Keywords: ramsay hunt syndrome, facial paralysis, varicella zoster virus, elderly patient, early diagnosis end treatment

Ref No: 3495

Pub No: S-223

Cardiac Toxicity and Death Caused by Muriatic Acid Ingestion

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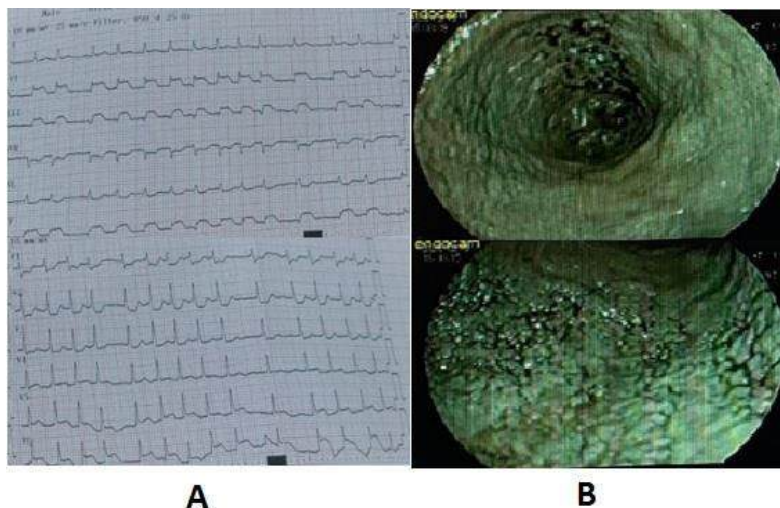
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Background and aim: Muriatic acid is a highly corrosive and potent substance that is a solution of hydrogen chloride in water. It is frequently employed in domestic cleaning products, including toilet bowl cleaners, bathroom tile cleaners, and a variety of cleaning tasks around the house. Oral ingestion is frequently linked to suicide or unintentional incidents in adults. This substance is extremely hazardous and can result in both local and systemic effects on an individual's body.

Case: A 42-year-old male patient presented to emergency department 30 minutes after ingesting muriatic acid. The patient's electrocardiography (ECG) at the time of admission did not reveal any additional pathology, with the exception of sinus tachycardia. His pulse rate was 130/min. In addition, the patient received ceftriaxone and pantoprazole. Ceftriaxone was administered as an 80 mg bolus, while pantoprazole was administered as an 8 mg/hour continuous infusion. However, on a subsequent ECG, ST-segment elevations were observed in leads II, III, and aVF, which were accompanied by reciprocal ST-segment depressions in leads DI and aVL. This was consistent with inferior myocardial infarction (Figure1A). Endoscopy was also administered (Figure1B). The patient experienced abrupt abdominal pain that progressively deteriorated over the course of nine hours. The CT scans demonstrated the presence of unrestricted air and fluid heterogeneity in the abdominal cavity. Emergency surgery was determined to be essential for the patient subsequent to a consultation with a surgeon. The patient experienced cardiac arrest during the transfer to the operating room. The patient, who was resuscitated for 60 minutes, did not respond favorably and died.

Figure 1A/B





A) Electrocardiogram image of the patient, B) Image sections from the patient's endoscopy examination.

Conclusions: Therefore, the patient's ECG results were indicative of myocardial infarction and elevated cardiac markers, necessitating an explanation. Coronary ischemia owing to coronary spasm is not excluded by the absence of thrombus on angiography. Additional investigation is necessary to clarify the precise mechanisms by which hydrochloric acid exerts its effects.

Keywords: Hydrochloric acid, suicide, cardiotoxicity, ST elevation myocardial infarction



Ref No: 3505

Pub No: P-058

A Case of Visual Impairment and Ptosis: The Clinical Significance of 3rd Cranial Nerve Palsy

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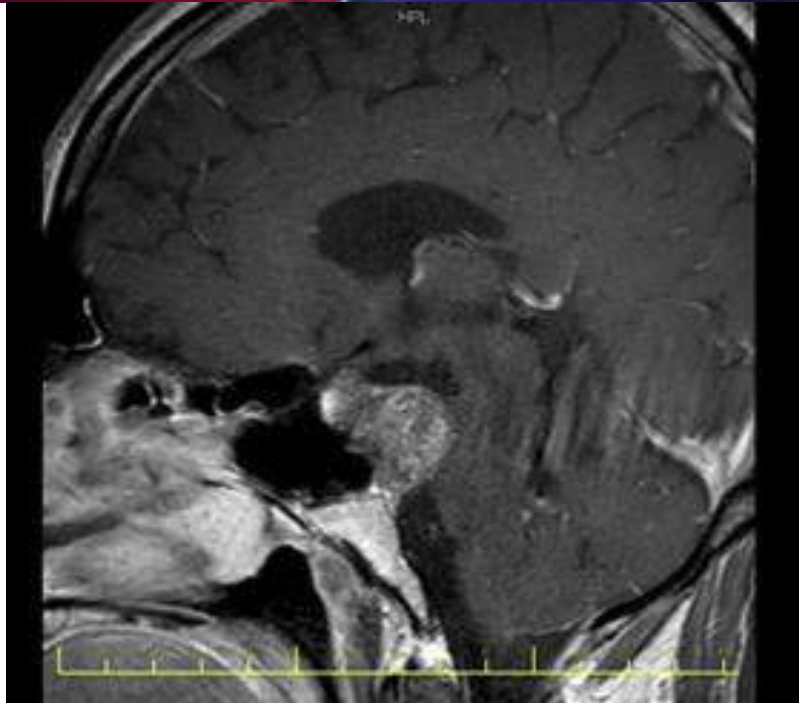
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Background and aim: Oculomotor nerve palsy, although rare, is a serious clinical condition that requires careful consideration from both ophthalmological and neurological perspectives. The oculomotor nerve, known as the third cranial nerve, is responsible for eye movements, as well as the elevation of the upper eyelid and the regulation of pupillary reactions. Patients with oculomotor nerve palsy may present with symptoms such as double vision(diplopia), drooping eyelid(ptosis), and pupillary abnormalities. The oculomotor nerve has three main motor functions: autonomic and parasympathetic innervation of the pupil and lens, somatic innervation of the upper eyelid, and somatic innervation of the eye muscles responsible for visual tracking and fixation of gaze.

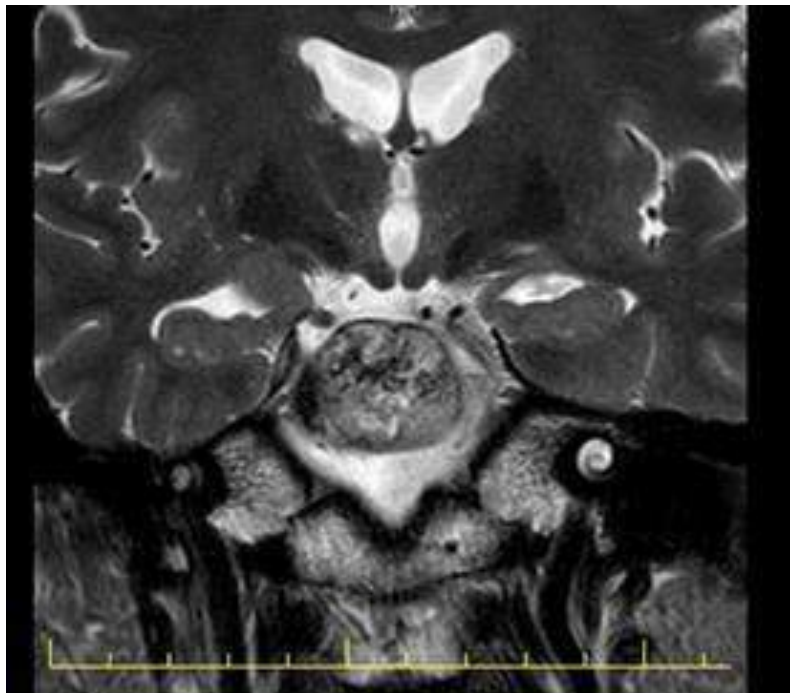
Case: A 52-year-old male patient presented to the emergency department with complaints of headache, right eyelid drooping, nausea, and loss of balance. The patient's headache started one day prior and he reported that the pain had gradually decreased. Upon admission, the patient's vital signs were recorded as follows: blood pressure 119/78 mmHg, pulse 78 bpm, saturation 99%, and temperature 36.7 °C. The patient had no known chronic illnesses and reported that he was not taking any regular medications. As a result of the tests, the patient was diagnosed with a clival mass, and a transsphenoidal surgery decision was made. During follow-up after the surgery, there was partial regression of the complaints of visual impairment and ptosis; however, the follow-up is still ongoing.

Figure 1



Magnetic Resonance Image of the Patient

Figure 1





Magnetic Resonance Image of the Patient

Conclusions: The aim of this case presentation is to highlight the possible underlying causes of acute isolated ocular motor nerve palsy in patients, such as neoplasms, trauma, intracranial aneurysms, and brainstem infarcts. Regardless of the presence of vascular risk factors, it emphasizes the importance of brain MRI and laboratory tests in the evaluation of these patients, facilitating early diagnosis and aiding clinicians in reaching the correct diagnosis, thereby contributing to the acceleration of the treatment process.

Keywords: Visual Impairment, Ptosis, 3rd Cranial Nerve Palsy

Ref No: 3578

Pub No:

DIAPHRAGMATIC RUPTURE AFTER HIGH ENERGY TRAUMA

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Background and aim: The most common cause of diaphragmatic injuries is penetrating trauma due to gunshot wounds to the lower chest or upper abdomen. Rupture due to blunt trauma is less common and occurs in <5% of patients hospitalized for thoracic trauma. The incidence of diaphragmatic hernia increases in pelvic fractures. The diaphragm separates the thoracic and abdominal compartments and is closely related to the surrounding organs, so isolated diaphragmatic injuries are rare. We tried to explain the patient who was brought after a traffic accident.

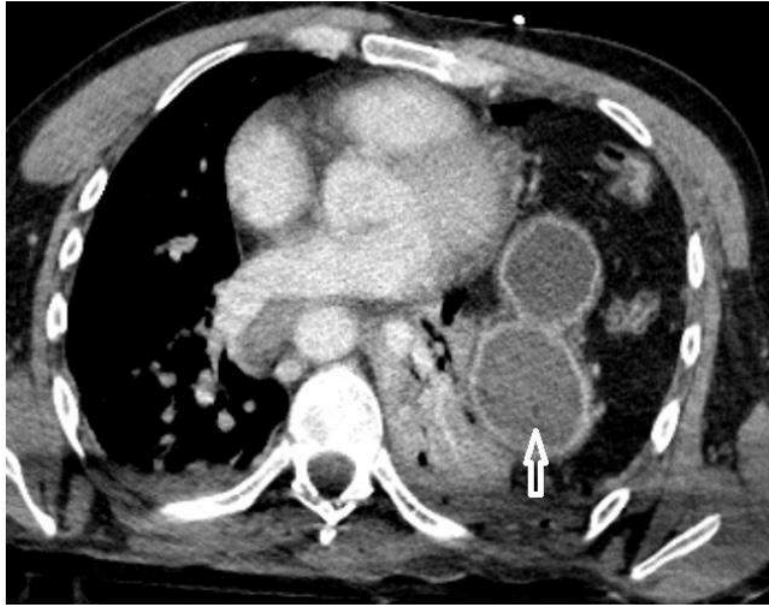
Case: 46 years old male patient, non-vehicle traffic accident, unconscious, spontaneous breathing, palpable pulse on initial examination. The patient has no known disease in his/her medical history and is not taking any medication regularly. On examination, general condition is poor, GCS 3, intubated, Vital Signs: Blood Pressure Arter: 121/72 mmHg, pulse 87/minute, temperature 36.8 °C, spO2 99%. The patient was taken into emergency operation by the Thoracic Surgery and General Surgery clinics due to diaphragmatic rupture and accompanying consecutive displaced rib fractures after a tomography scan due to high-energy trauma revealed areas on the left lung that may be compatible with the stomach (Figure 1 and 2) and intestinal anus (Figure 3). After 1 month of intubated intensive care follow-up, the patient was discharged after clinical recovery.

Figure 1



Computed tomography image with contrast in the coronal section indicated by the white arrow

Figure 2



Computed tomography image with contrast in the horizontal section indicated by the white arrow

Figure 3



Computed tomography image with contrast in the coronal section indicated by the white arrow



Conclusions: Diaphragmatic injuries usually occur with penetrating or blunt injuries. Rarely, iatrogenic injuries can occur due to spontaneous rupture during pregnancy or unexplained spontaneous rupture. Laparoscopy or laparotomy is necessary to repair the diaphragm. Thoracotomy may be necessary for associated chest injury, resuscitation, delayed repair of the diaphragm or treatment of thoracic complications.

Keywords: Diaphragm, trauma, rupture





Ref No: 3639
Pub No: P-062

Eusephagus bleedings in esophagus and current literature

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Background and aim: Gastrointestinal bleeding (GIB), leading to about one million hospitalizations annually in the U.S., is a significant condition with high morbidity and mortality rates requiring prompt diagnosis and treatment by emergency physicians. Among the causes of upper GI bleeding, esophageal variceal bleeding is particularly dangerous and poses a serious life threat. It must be considered whenever upper GI bleeding presents, especially in patients with liver cirrhosis.

Case: The study examined 7 cases presenting to the Niğde Ömer Halisdemir Training and Research Hospital Emergency Department with upper gastrointestinal bleeding complaints between February 1 and August 31, 2024, subsequently confirmed as having variceal bleeding through endoscopy. All 7 patients underwent endoscopy within 12 hours, with no patient requiring cardiopulmonary resuscitation. Early diagnosis and treatment were successfully implemented. The blood parameters of the patients are shown on table 1. A somatostatin analog was administered to 42.8% of the patients. Early endoscopy was performed in all cases. There were no mortalities among the patients.

Conclusions: Esophageal variceal bleeding is a life-threatening condition that requires rapid intervention, and is a disease that emergency physicians in particular should be well aware of and keep up-to-date with due to the need for resuscitation and specific treatment. Vasopressor agents in particular, although included in guidelines, are not yet sufficiently used in clinical practice.

Basic blood parameters of cases

Case	Initial HB	2nd Hour HB	Discharging HB	Platelet*	INR	Creatin	AST	ALT
1	7,4	8	12,1	121,0	1,3	2,8	308,0	258,0
2	8,5	8,2	9,9	57,0	1,4	1,1	16,0	54,0
3	8,5	8,3	9,4	167,0	1,4	1,2	17,0	13,0
4	6,1	6,9	8,7	401,0	1,4	1,8	34,0	19,0
5	7,8	7,9	9,4	216,0	1,1	0,8	26,0	14,0
6	6,8	6,8	8,8	207,0	1,3	0,7	48,0	24,0
7	10,8	10,7	12,0	89,0	1,7	0,7	39,0	26,0

*: $\times 10^3$, HB: Hemoglobin, INR: International Ratio, AST: Asparagine amino transpherase, ALT: Alanin amino transpherase

Keywords: esophageal variceal bleeding, endoscopy, somatocitin analogue, mortality



Ref No: 3687
Pub No: P-037

Pneumomediastinum without Esophageal Rupture

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Background and aim: Pneumomediastinum is the presence of air in the mediastinum. This can be caused by physical trauma or other conditions that cause air to escape from the lungs, airways or intestines into the chest cavity. Pneumomediastinum is a rare condition and occurs when air leaks into the mediastinum. The diagnosis can be confirmed by chest X-ray or CT scan of the chest. The main symptom is usually severe central chest pain. Other symptoms include shortness of breath, voice distortion (as with helium) and subcutaneous emphysema, particularly affecting the face, neck and chest. (1-2). Our aim in this study is to show that we should pay attention to the complaints described by the patient in pneumomediastinum. Patients admitted to the emergency department may not always describe their complaints accurately.

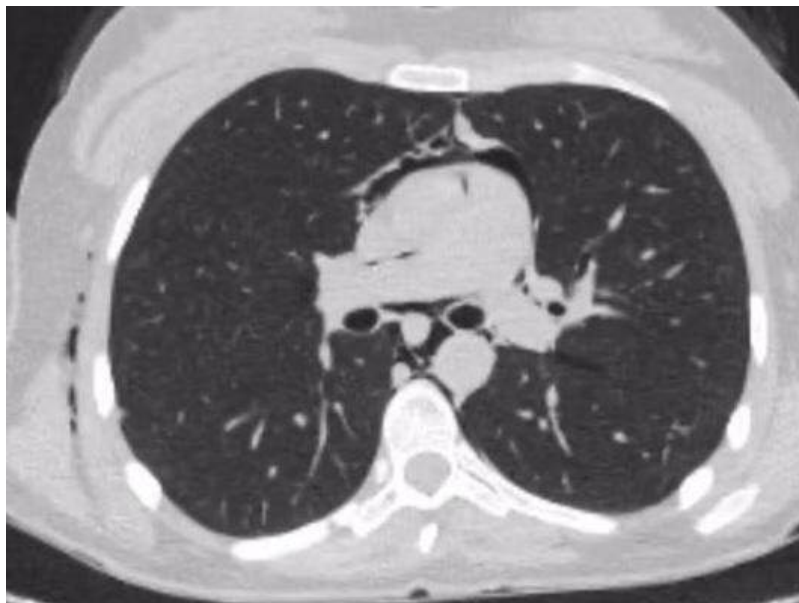
Case: A 30-year-old female patient applied to the emergency department with a complaint of swelling in the throat and neck area after a headache and vomiting that started yesterday. She has a history of migraine. Blood pressure measured at the admission to the emergency department. 110/80 mm/hg. There was minimal swelling in the neck extending from under the chin to the sternum and subcutaneous emphysema in the anterior cervical region, neck, both shoulders and right pectoral region. Thoracic CT showed free air in the mediastinum and cervical region extending to both axillary armpits and encircling the entire mediastinum (Figure 1-2). No esophageal rupture was detected on gastroscopy performed after hospitalization.

Figure1



Computed Thoracic Tomography Image of the Patient

Figure 2



Computed Thoracic Tomography Image of the Patient



Conclusions: Pneumomediastinum can be associated with esophageal ruptures and pneumothorax with a serious and fatal outcome, or it can be seen in patients in good general condition presenting with simple and incomprehensible complaints. Although the patient described swelling in the throat, palpation of the neck area helped us to solve this case, subcutaneous emphysema was the first and most valuable feature to suspect pneumomediastinum.

Keywords: Pneumomediastinum, Subcutaneous emphysema, Emergency department



Ref No: 3719
Pub No: P-121

The Importance of Physical Examination in Altered Consciousness: Fournier's Gangrene

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Background and aim: When approaching a patient with significantly decreased consciousness in the emergency department, it is crucial to consider various differential diagnoses including cardiovascular, respiratory, neurological, and infectious pathologies, and to perform appropriate imaging studies. Symptoms that could be related to multiple systems can be narrowed down through accurate physical examination, allowing for a faster and safer approach to patient management. Fournier's gangrene is a rare but serious bacterial infection that starts in the genital and perineal regions. This infection typically leads to necrosis in the skin, muscles, and other soft tissues and spreads rapidly. Named after French urologist Jean-Alfred Fournier, it is more commonly seen in men.

Case: A 77-year-old male patient presented to the emergency department with decreased consciousness and poor general condition. The patient had multiple previous visits to an external facility over the past 2-3 days for similar complaints. He had a history of numerous intramuscular injections for low back pain over the past week. The patient was referred to our hospital for further evaluation and diagnosis. Upon admission, the patient's vital signs were: blood pressure 130/91 mmHg, pulse 96 bpm, temperature 36.5°C, oxygen saturation 97%, and respiration rate 20 bpm. The patient's medical history and medication information could not be accessed due to insufficient cooperation. Physical examination revealed poor general condition, the patient only opening his eyes to painful stimuli, responding with incomprehensible sounds, and showing decerebrate posture. The Glasgow Coma Scale (GCS) was 7.

Conclusions: For patients presenting with altered consciousness and poor general condition in the emergency department, accurate physical examination allows for faster and safer management of diagnosis and treatment. Early diagnosis can reduce mortality and morbidity rates.

Keywords: Fournier's Gangrene, Physical Examination, Altered Consciousness



Ref No: 3755
Pub No: S-073

A Rare Complication in an Immunosuppressed Patient with Chickenpox: Varicella Zoster Virus Encephalitis

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Background and aim: Varicella zoster virus, travels along the affected nerve fiber after activation and causes a painful vesicular rash in the dermatome region of that nerve. In patients with immunosuppression, it can cause neurological complications such as aseptic meningitis, cerebellar ataxia, transverse myelitis, encephalitis, Guillain-Barré Syndrome, vasculitic ischemic stroke and optic neuritis.

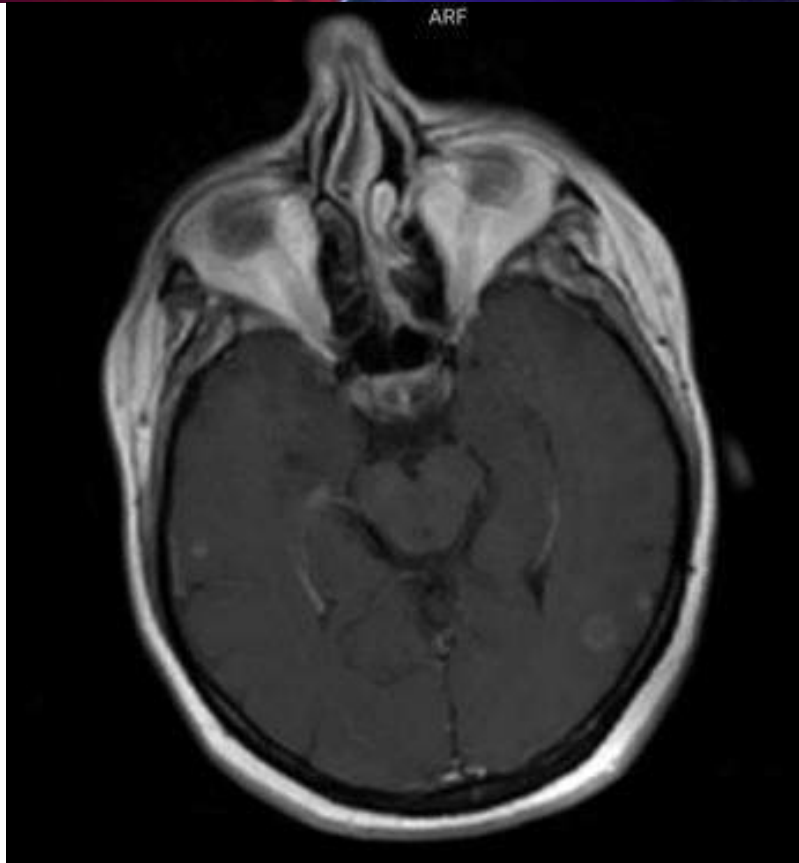
Case: A 43-year-old female patient presented to the emergency department with complaints of numbness at the corner of the mouth, weakness, difficulty in speaking, and imbalance. She had vesicular lesions on her body 3 weeks ago and presented to the dermatology clinic. Vital signs were blood pressure 110/70 mmHg, pulse 65/min, body temperature 36.5 C°, respiratory rate 18/min, and oxygen saturation 97% on room air. In the physical examination; general condition was moderate, consciousness tended to sleep, GKS 14, oriented-cooperative, no motor/sensory deficit. There was no neck stiffness. Kernig sign and Brudzinski sign were negative. A hypodense lesion was observed at the right basal ganglia level in the patient's non-contrast cranial computed tomography (CT) taken at an external center. In the patient's contrast-enhanced cranial magnetic resonance (MR) report, cystic T2 and FLAIR hyperintense signal changes were observed in both cerebellar hemispheres and the right half of the pons. Numerous T2/FLAIR hyperintense signal changes were observed in the periventricular white matter and frontoparietal subcortical white matter areas. In addition, these lesions were observed to appear hyperintense in T1 series and were hemorrhagic. Infectious diseases and neurology physicians were consulted and intensive care unit follow-up was recommended considering VZV encephalitis. Acyclovir, ceftriaxone and dexamethasone IV treatment was empirically started in the emergency department. The patient was referred to a higher center due to the need for intensive care.

Figure 1



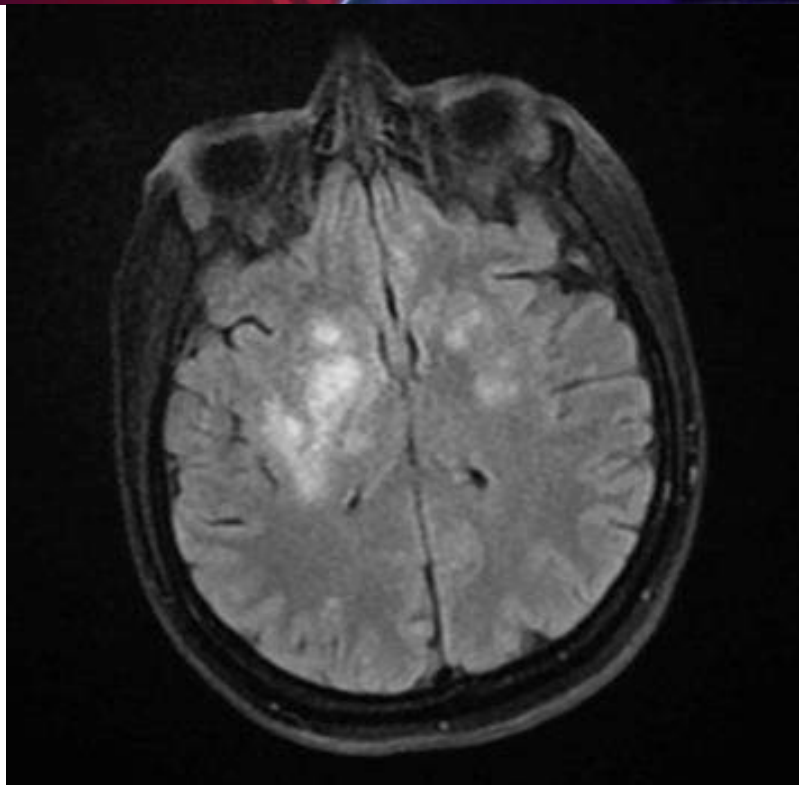
Hypodensity at the level of the right basal ganglia on non-contrast cranial CT.

Figure 2



Areas of hyperintensity on contrast-enhanced cranial MR T1 sequence images.

Figure 3



Areas of hyperintensity on contrast-enhanced cranial MR T2/FLAIR sequence images.

Conclusions: If patients using TNF-alpha inhibitors for sarcoidosis have had chickenpox recently and present to the emergency department with neurological symptoms, VZV encephalitis should be considered in the diagnosis.

Keywords: Complication, Varicella Zoster Virus, Encephalitis



Ref No: 3767

Pub No: P-149

Treatment of mushroom poisoning with silibinin

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Background and aim: Amanita phalloides is responsible for the mushroom poisoning in Turkey, accounting for 90% of cases.

Case: A 69-year-old male patient consumed 250 grams of mushrooms. Subsequently, the patient began to experience symptoms of nausea and vomiting. Given these symptoms, the patient was admitted to the internal medicine service at an external centre. The patient was referred to a centre with the capacity to provide liver transplantation following the discovery of elevated liver function test results, namely LDH 1700U/L, ALT 2200U/L, AST 2000U/L, INR 4.6, and DIRECT BILIRUBIN 2.3 mg/dl, in laboratory tests. Upon presentation, the patient was conscious. Neurological examinations were normal, the abdomen was comfortable. Vital signs were as follows: blood pressure: 130/99 mmHg, SPO2: 92, pulse: 81/min, fever: 36C, SS: 22/min, blood sugar: 126 mg/dl. Laboratory tests conducted in our emergency room yielded the following results: ALT: 4000 U/L, AST: 3900 U/L, LDH: 2346 U/L, Total bilirubin: 1.7 mg/dL, INR: 1.74, pH: 7.31, pCO2: 36 mmHg, HCO3: 20 mmol/L and lactate: 2 mmol/L. Silybum marianum was administered intravenously at a dose of 5 mg/kg, followed by an intravenous infusion at a dose of 20 mg/kg/24 h. The administration of N-Acetyl Cysteine was conducted at a dosage of 150 mg/kg via intravenous loading during the initial hour, followed by 50 mg/kg over the subsequent four hours. This was then continued as an iv infusion at a rate of 6.25 mg/kg/h until the clinical findings demonstrated improvement. Penicillin G was administered intravenously at a dosage of 300,000 to 1,000,000 units per day. VitaminC was administered intravenously at a dosage of 3 grams per day.

Conclusions: Our patient was hospitalized in the intensive care unit. At the conclusion of the follow-up and treatment process, the patient was successfully managed without the need for liver transplantation and was discharged with healing.

Keywords: mushroom, amanita, silibinin



Ref No: 3830

Pub No:

A Forgotten Pathology in Syncope Patients: Aortic Dissection

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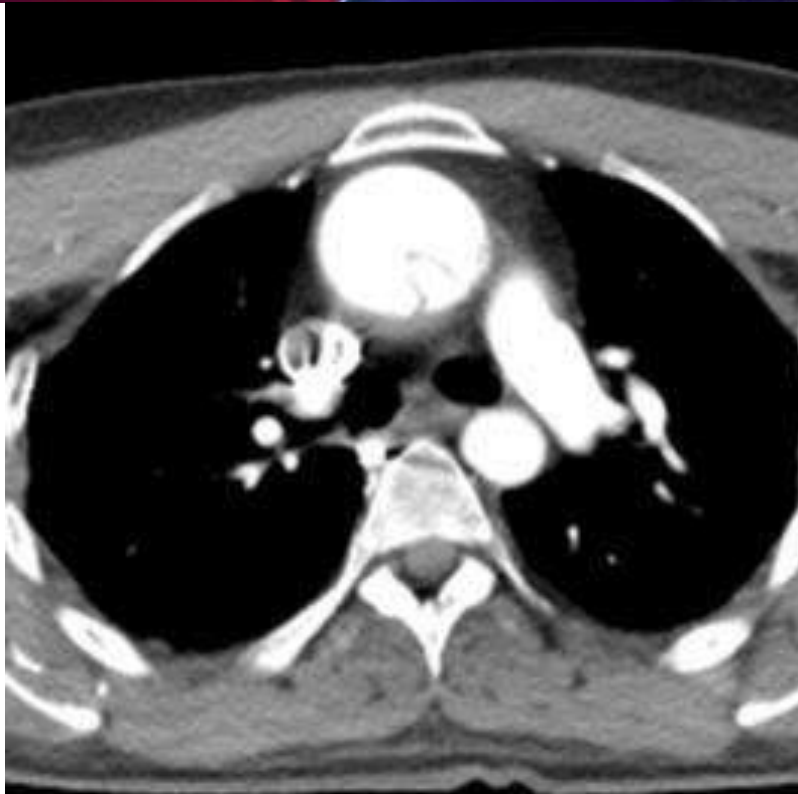
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Background and aim: Aortic dissection is a critical condition that must be diagnosed in the emergency department due to its high mortality. First described 150 years ago, aortic dissection typically presents with sharp pain in the chest, back, or abdomen (1). However, diagnosing the condition becomes challenging in patients who present with atypical symptoms, such as syncope, hemiparesis, hemiplegia, dysphagia, or flank pain. Syncope, which is an early manifestation in 5% of patients, is usually caused by increased vagal tone, hypovolemia, or dysrhythmias (2). One often overlooked cause of syncope during evaluation is acute aortic dissection.

Case: A 36-year-old male patient presented to the emergency department with complaints of dizziness, headache, nausea, vomiting, syncope, and inability to recognize familiar people. His symptoms had begun approximately 4-5 hours before his arrival. Initial vital signs revealed a blood pressure of 120/60 mmHg, pulse rate of 66 bpm, temperature of 36°C, and an oxygen saturation of 100%. The patient had a history of migraines. Physical examination showed a Glasgow Coma Scale (GCS) score of 15, with a generally moderate condition, alert consciousness, and limited orientation and cooperation. The other systemic examinations were normal. A CT angiography confirmed a 6.7 cm aneurysm in the ascending aorta and an associated dissection. The patient was referred to the cardiovascular surgery department and transferred to another center by the relevant specialty.

Figure 1



Dissection of the ascending aorta

Conclusions: We think that aortic dissection should be excluded in patients with atypical physical findings such as syncope, which may be caused by vascular pathology as well as cardiac and central causes.

Keywords: Aortic Dissection, Syncope, Emergency Medicine



Ref No: 3847

Pub No: P-066

Case of Rectus Sheath Hematoma Detected in a Patient Presenting with Abdominal Pain

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Background and aim: Rectus sheath hematoma results from the rupture of epigastric vessels or the rectus muscle and is often secondary to anticoagulant use. It can develop spontaneously or secondary to trauma. In this presentation, we discussed rectus sheath hematoma, a rare condition that can present as an acute abdomen, in the differential diagnosis of patients presenting with abdominal pain to the emergency department (ED).

Case: A 77-year-old male patient admitted to the ED with complaints of abdominal pain and distension. His vital signs were stable. He had a history of atrial fibrillation (AF) and congestive heart failure (CHF). A detailed history revealed that in the past week, he had been hospitalized due to AF, CHF and was started on low molecular weight heparin (LMWH). The abdominal examination revealed an ecchymotic area in the infraumbilical region, and tenderness with a palpable mass in the right lower quadrant. Abdominal ultrasound showed a heterogeneous collection in the right and left rectus sheaths, suggestive of a rectus sheath hematoma. Computed tomography confirmed a heterogeneous hemorrhagic area extending from the subcutaneous tissue into the intra-abdominal space. Hemoglobin levels decreased from 10.4 g/dL to 9.2 g/dL. The patient was admitted to the general surgery department with a preliminary diagnosis of rectus sheath hematoma.

Conclusions: Rectus sheath hematoma often mimics an acute abdomen, which can lead to unnecessary surgical interventions if not properly diagnosed. Treatment is generally conservative. For resistant and high-risk cases, coil embolization may be considered. Although rectus sheath hematomas are rare, they are more common in women and are seen more frequently in patients using anticoagulants. While warfarin-related rectus sheath hematomas are more common, cases related to LMWH usage also exist. In this case presentation, we would like to share a case of rectus sheath hematoma that developed after the use of LMWH.

Keywords: Rectus sheath hematoma, anticoagulant

Ref No: 4006
Pub No: P-023

A Colorful Complication of Urinary Tract Infection: Purple Urine Bag Syndrome

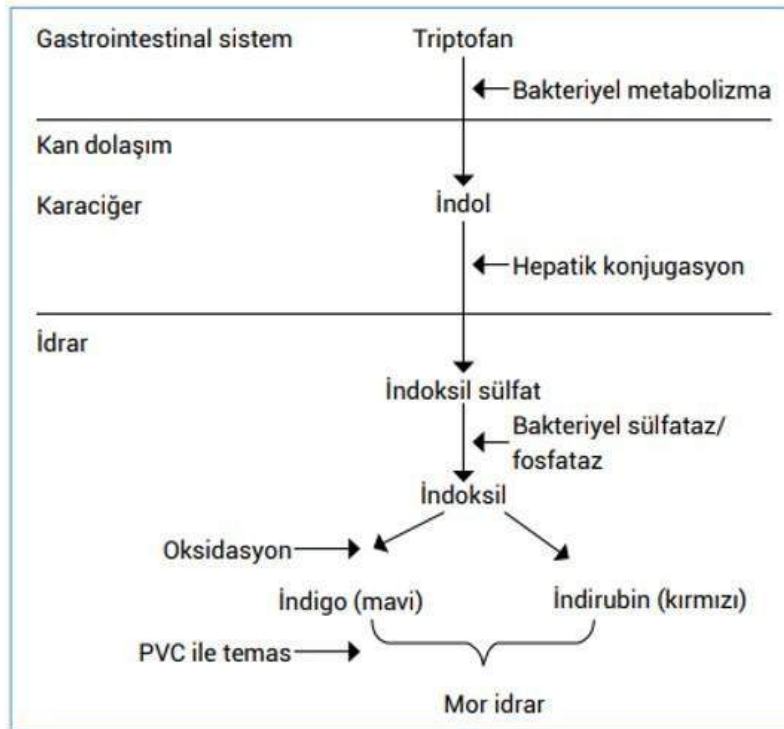
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Background and aim: Urinary tract infections are common bacterial infections. They are more common in women, with a lifetime incidence of 40-50%, and 40% of these may have recurrent infections.

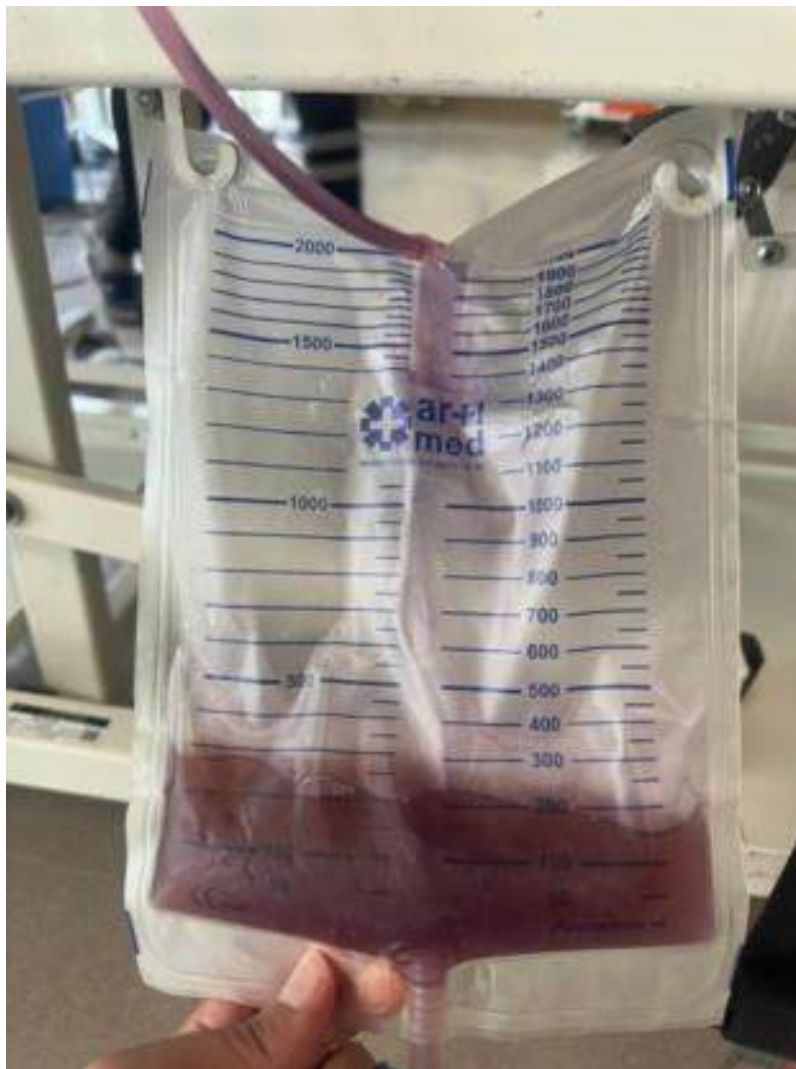
Figure 2



Case: An 80-year-old male patient was brought to the emergency department with complaints of oral intake disorder, general condition disorder. It is learned that he was a nursing home patient and had been followed up with a urinary tract catheter for a long time. He has a known history of Alzheimer's disease, chronic renal failure and an operation for inguinal hernia 6 years ago. On physical examination, general condition was moderate, consciousness was blurred, orientation was poor, dehydrated and cachectic and GCS was 14 points. On inspection, purple colored urine was visible in the patient's bladder. The patient's vital values on admission were as follows; TA: 87/56 mmHg, Pulse: 105 beats/min, temperature: 36 °C, SpO2: 99%, BG: 127 mg/dl, ECG: normal sinus rhythm. Laboratory parameters of the patient were pH:

7.10, HCO₃: 10.4, pCO₂: 28.7, WBC: 8890, Hgb: 13.2, Plt: 230.000, Creatin: 9.62, BUN: 169, GFR: 5, Na: 152, Cl: 118, K: 5.2, CRP: 28.7, PCT: 0.54, TIT: pH: 8.5, Protein: +++++, Nitrite: Negative, Leukocyte: +++++. Urinary USG was planned to elucidate the etiology of creatine increase and metabolic acidosis. Urinary USG showed a heterogeneous hypoechoic appearance (TM?) of approximately 63*48 mm in size filling the bladder lumen. The patient was consulted to urology and nephrology with the results of the examination. Emergency hemodialysis was planned and a temporary central catheter was inserted. Urinary catheter was changed. Urine and blood cultures were taken. Empirical IV antibiotics were started. After hemodialysis, the patient was transferred to intensive care unit.

Figure 1



Conclusions: The aim of this case report is to remind physicians of the purple bladder syndrome, which is rare and alarming when seen by inspection alone.

Keywords: Purple Urine Bag Syndrome, complicated urinary tract infection, urethral catheter



Ref No: 4017
Pub No: P-031

Unexpected End After Bee Sting: Metformin Associated Lactic Acidosis (MALA) Case Report

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Background and aim: Metformin is a biguanide group insulin-sensitizing drug used in the treatment of type 2 Diabetes Mellitus.

Case: A 58-year-old foreign national female patient presented to the emergency department with complaints of shortness of breath, pain in the legs and sweating that started after a bee sting. She had a known history of type 2 diabetes mellitus and coronary artery disease. On physical examination, the patient was conscious, oriented, cooperative and GCS:15. There was a diffuse hyperemic urticarial rash on the lateral aspect of the left forearm and umbilicus where the bee sting was located. Respiratory system examination was normal, abdominal examination was normal and there was no defense-rebound. On admission vitals; TA: 141/75 mmHg, pulse rate: 77/min, temperature: 36.4 C°, SPO2: 94%, fingerstick blood glucose: 220 mg/dl, ECG: no acute changes. Laboratory parameters of the patient were as follows; pH: 7.27, lactate: 8, pCO2: 41.8, HCO3: 16.6. The patient was treated with pheniramine, prednol and hydration therapy for bee sting. In the follow-up, urticarial eruptions regressed and the skin lesion completely regressed. Although the patient improved clinically in the follow-up in the emergency department, lactic acidosis persisted in blood gas monitoring. After the patient's complaints of bee sting completely resolved but lactic acidosis persisted, anamnesis was deepened and it was learned that metformin treatment had been started recently but the patient had irregular use of the drug. Metformin-associated lactic acidosis was considered in the patient. The patient was consulted with the internal medicine clinic and transferred to the internal medicine clinic for follow-up and treatment.

Conclusions: With this case report, we wanted to emphasize that in addition to the main complaint of the patient presenting to the emergency department, we should also question the medications used by the patient, especially in foreign patients, in the deep anamnesis.

Keywords: Metformin, lactic acidosis, Diabetes mellitus



Ref No: 4100
Pub No: P-116

Methanol Poisoning from Cologne: A Case Study Highlighting the Risks of Everyday Products

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Background and aim: Methanol poisoning has become a less common presentation due to increased awareness, restrictions on its daily use, and the prohibition of its use in colognes and disinfectants. In this case, we present a patient who presented to our emergency department following the consumption of cologne, emphasizing the importance of not overlooking methanol intoxication in patients with similar histories and complaints, despite its rarity.

Case: A 47-year-old female patient presented to our emergency department with symptoms of nausea and vomiting that had started the previous day. The patient's medical history included the use of antipsychotic medication. The history revealed that the patient had been consuming cologne intermittently for the past month. It was noted that her symptoms developed after using a different brand of cologne the day before her presentation. Laboratory tests showed elevated creatinine levels and metabolic acidosis. The patient developed acute kidney injury and a dialysis catheter was placed for dialysis treatment. Ethanol was ordered and administered as a loading dose. The patient was admitted to the internal medicine ward with a diagnosis of methanol poisoning.

Conclusions: Accidental or intentional ingestion of substances containing methanol and ethylene glycol can lead to severe outcomes, including death, with some survivors experiencing blindness, renal dysfunction, and chronic brain injury. Methanol poisoning can be managed effectively with early diagnosis and treatment, preventing serious consequences. This case underscores the importance of using ethanol and hemodialysis in the management of methanol poisoning. It is crucial to use methanol-containing products cautiously and to enhance public awareness to prevent such cases.

Keywords: methanol, ethanol, dialysis







Ref No: 4153

Pub No: P-013

Importance of Follow-up in Patients Presenting with Neck Pain

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Background and aim: Although hemorrhagic strokes, which include non-traumatic subarachnoid hemorrhages and intracranial hemorrhages, constitute a small portion of emergency department admissions, they can have devastating consequences when overlooked (1). Patients with subarachnoid hemorrhage classically present to the emergency department with an acute onset severe headache that reaches its maximum severity within seconds. Even if the patient does not describe the worst headache of his/her life, a headache with a different character and intensity than the headaches in the past should suggest subarachnoid hemorrhage.

Case: A 68-year-old male patient presented to the emergency department with new onset of neck pain. According to the anamnesis, he had no history of chronic disease and regular medication use. On arrival physical examination, general condition was good, consciousness was clear, cooperative & oriented, GCS was 15, and there was no lateralized side sign. On admission vital values were TA: 136/88 mm/Hg, pulse rate: 93 beats/min, temperature: 36.8 °C, saturation 98%. There were no acute pathologic findings on ECG. Symptomatic analgesic treatment was initiated for the management of the patient who had no gross pathologic findings on examination and vital values and was followed up. During the follow-up period, the patient's pain was not relieved. On follow-up examination, it was observed that the patient was confused and atypical movements started. Blood and cranial imaging was planned for further investigation. Laboratory parameters of the patient were WBC: 12.4, Hgb: 13.8, plt: 233, BUN: 20, creatinine: 0.87, eGFR: 89, Na: 134, K: 4.3, Cl: 103, INR: 1.1. Brain CT scan of the patient showed diffuse subarachnoid hemorrhage in both hemispheric sulci and basal cisterns bilaterally. The patient was consulted to neurosurgery and transferred to intensive care unit.

Subarachnoid Hemorrhage in Patient's Brain CT



Conclusions: With this case report, we aimed to remind that spontaneous subarachnoid hemorrhage may also occur in a patient presenting with neck pain without headache.

Keywords: Neck Pain, subarachnoid hemorrhage, Altered Consciousness

Ref No: 4315

Pub No: S-098

Superior Mesenteric Artery (Wilkie's) Syndrome: A Case Report

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Background and aim: Superior Mesenteric Artery (SMA) Syndrome, also called Wilkie Syndrome, is a rare clinical phenomenon characterized by obstruction of the third part of the duodenum due to SMA compression. The incidence of duodenal compression in the aorto-SMA region is estimated to be approximately 0.3% in barium upper gastrointestinal studies, but the rate of clinically significant disease is around 0.01–0.08%. Symptoms; It may occur acutely or chronically, such as nausea, bilious vomiting, postprandial epigastric pain, anorexia and weight loss.

Case: 35 years old male, Patient was admitted to the emergency department with abdominal pain, nausea and vomiting. The patient has nasopharynx carcinoma, no use of any medications. His vital signs are in normal interval, he didn't have any bowel movement almost 2 days. Examination findings show abdominal tenderness and pain with palpation. Blood work and some x-ray scans done. Findings didn't explain the situation, make further imaging: Ct-scan shows dilated stomach and first 2 parts of duodenum. Scoliosis and burn injuries are well-known etiologies of SMA syndrome and clinicians should be aware of this entity. In contrast, in functional dyspepsia patients, the incidence is much higher (10.8%) than in the general population, which is explained by clinicians under-diagnosing.

Figure 1



Wilkie Syndrome Computed Tomography view



Conclusions: In conclusion, superior mesenteric syndrome is a serious condition that requires prompt diagnosis and treatment to prevent long-term complications. Diagnosis can be challenging and may involve imaging studies, such as CT or MR, and upper gastrointestinal endoscopy.

Keywords: Wilkie's Syndrome, Abdominal pain, Emergency medicine

Ref No: 4331

Pub No: P-079

Nonspecific Findings May Indicate Potentially Fatal Disease: Wellens Syndrome

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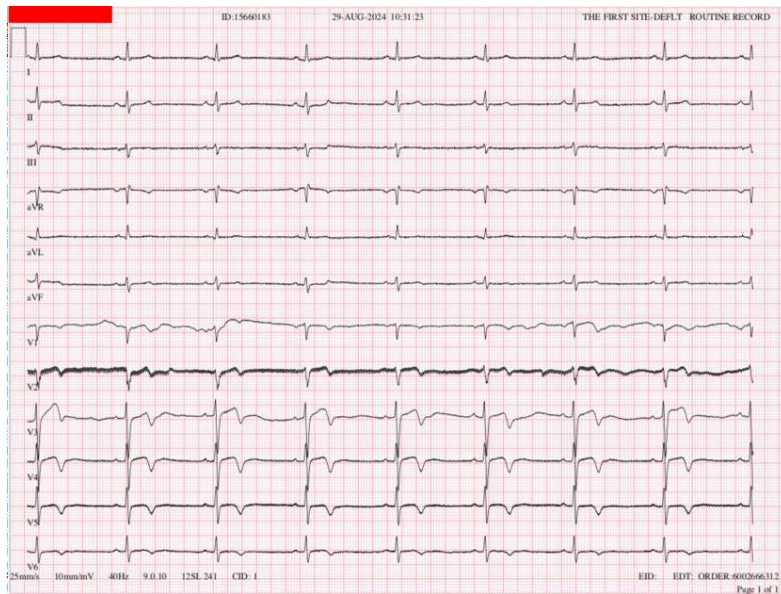
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Background and aim: Wellens syndrome is a clinical condition that suggests critical stenosis of the proximal left anterior descending (LAD) coronary artery with T wave changes observed on electrocardiography (ECG) taken mostly during painless periods. It is important to recognize ECG findings since these patients are at high risk for anterior myocardial infarction (MI). We present a potentially fatal case detected by ECG in a patient who presented to the emergency department (ED) with non-specific complaints.

Case: A 55-year-old male presented to the ED with nausea, vomiting, diarrhea, and stomach. He had no any other additional complaints. His vital signs were normal. Intestinal sounds were hyperactive and there was widespread tenderness in the abdomen. Other system examinations were normal. Complete blood count, kidney and liver function tests, electrolytes and cardiac biomarkers were normal. The patient's ECG showed deep biphasic T waves in leads V2-V3, deep symmetric T inversion in leads V4-V5 and sinus bradycardia (Figure 1). The patient, who was suspected of having Wellens syndrome based on the current ECG findings, was admitted to the cardiology ward. The coronary angiography was performed and a 99% stenosis was detected in the proximal LAD.

Figure 1.





Deep biphasic T waves in leads V2-V3, deep symmetric T inversion in leads V4-V5 with sinus bradycardia

Conclusions: Definitive treatment usually include percutaneous coronary intervention (PCI) in patients with Wellens syndrome(1,2). Two different types of ECG patterns have been described. Type A is less common but more specific. In contrast, Type B is more common, less specific, more easily recognized and is characterized by deep, symmetrically inverted T waves in the anterior leads. These ECG changes can be easily overlooked, which can lead to fatal consequences (3). Medical treatment cannot prevent this course and patients are ultimately scheduled for PCI. ECG findings should be carefully evaluated in patients presenting with nonspecific complaints in the ED and critical diseases that may be fatal should not be overlooked.

Keywords: Wellens syndrome, emergency department, electrocardiography



Ref No: 4355
Pub No: S-041

An Interesting Case: Pacemaker Electrode Rupture

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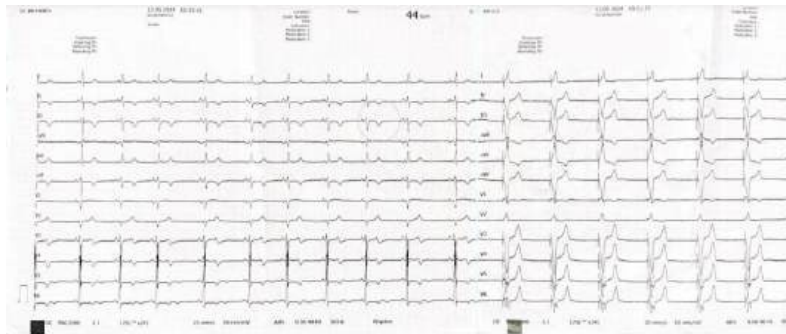
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Background and aim: A cardiac pacemaker is a small generator that is powered by a battery. It can have one or more leads. A single-chamber pacemaker usually has a single lead that stimulates the right ventricle. Dual-chamber pacemakers have two leads, one in the right atrium and one in the right ventricle. They act synchronously to mimic the sequential contractions of the atrium and ventricle. Permanent pacemaker implantation is an effective treatment for bradyarrhythmias. It is a simple, minimally invasive procedure. In this article, we describe a patient with recurrent syncopal episodes after fracture of the atrial electrode of a dual-chamber pacemaker.

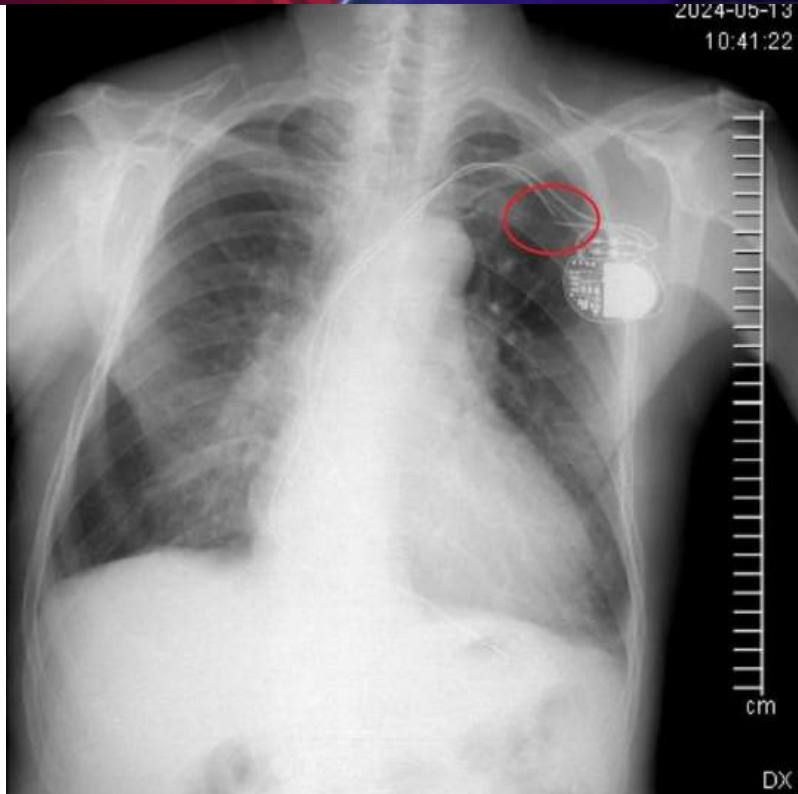
Case: A 75-year-old man with a history of hypertension, type 2 diabetes mellitus, and a dual-chamber pacemaker implanted 8 years ago for sick sinus syndrome. He had been suffering from dizziness and syncope for the last three weeks. On presentation, his blood pressure was 157/84 mmHg and pulse rate was 50 beats/min. On physical examination, there is no disturbance of consciousness and the neurological examination is normal. Electrocardiogram (ECG) shows normal sinus rhythm and intermittent pacemaker rhythm (Figure 1). Direct radiography shows that the lead to the atrium is fractured and displaced (Figure 2). Results of pacemaker monitoring showed that the atrial lead had impaired signal transmission and the pacemaker could not properly synchronize atrial activity, causing dizziness and fainting spells. The patient was admitted to the cardiac intensive care unit and the lead was replaced. After the lead change, the patient's symptoms resolved. ECG and pacemaker monitoring results normalized and synchronization of atrial and ventricular activity was achieved.

Figure 1



Intermittent pacemaker rhythm

Figure 2



X-Ray Image of the Case

Conclusions: Especially in patients with a pacemaker implanted for a long time and complaints of dizziness and syncope, the physical condition of the pacemaker may be the cause of the symptoms and should be evaluated with direct chest radiography.

Keywords: Cardiac pacemaker, Sick sinus syndrome, Syncope, Electrocardiogram



Ref No: 4452

Pub No: P-014

Tubulointerstitial Nephritis in a Clarithromycin User: Case Report

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Background and aim: Tubulointerstitial nephritis (TIN) is a condition that leads to acute kidney damage as a result of immune-mediated infiltration of the renal interstitium with inflammatory cells (1). Drugs are the leading cause. Clarithromycin is a macrolide group antibiotic. Antibiotics with the active substance clarithromycin are a group of antibiotics frequently preferred by physicians. Although clarithromycin is metabolized in the liver, its renal excretion is also high, so dose adjustment is required in patients with renal failure.

Case: A 43-year-old patient with known hypertension presented to the emergency department with swelling of the legs, rash on the legs for two days and general condition disorder. In the patient's history, it was learned that he had been hospitalized 13 days ago due to pneumonia and was prescribed antibiotics containing clarithromycin and cefdinir on discharge. Physical examination revealed Pto +/+ and rash on the legs. When the patient's past blood results were analyzed, it was noticed that renal function tests were minimally above the upper limit of the laboratory for one year. During follow-up, metabolic acidosis and hyperkalemia persisted and urine output was 20cc/h. Imaging studies were unremarkable except for a new pericardial fluid. The patient was primarily consulted to nephrology and cardiology. Nephrology initially recommended discontinuation of antibiotics and prednol and did not consider hospitalization. Echocardiogram performed by cardiology physician revealed an efr of 60% and hospitalization was not considered. In the controls, acidosis and hyperkalemia persisted, the patient did not respond to fluid support, hypotension deepened and inotropic support was initiated. The patient was reconsulted to nephrology and hospitalized in intensive care unit with the diagnosis of drug-induced tubulointerstitial nephritis.

Conclusions: Our aim in this case report is to emphasize the importance of detailed questioning of the patient's history and initiation of treatment by evaluating the patient as a whole.

Keywords: Tubulointerstisyel Nefrit, Klaritromisin, acute renal failure



Ref No: 4476

Pub No: S-094

Hemodynamic Collapse Management in Metformin Overdose : The Role of ECMO

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Background and aim: Metformin (dimethylbiguanide) is a biguanide-derived drug prescribed primarily for non-insulin dependent diabetes mellitus, it is favored for its effectiveness in lowering blood glucose levels, weight neutrality and cardiovascular benefits compared to other antidiabetic agents. Metformin exerts its glucose-lowering effect by reducing hepatic glucose production, enhancing peripheral glucose uptake and improving insulin sensitivity. Despite its benefit, Metformin toxicity can occur, particularly in the setting of overdose or in patients with risk factors such as renal impairment, advanced age or concomitant use of other medications that affect renal function.

Case: A 67-year-old, 80 kg male patient with a medical history of non-insulin dependent diabetes mellitus was admitted to the emergency department after ingesting metformin for suicidal reasons approximately 10 hours prior. Due to worsening clinical status, he was transferred to our toxicology intensive care unit for further management. Upon arrival, the patient was in a comatose state with a Glasgow Coma Scale (GCS) score of 3 and required immediate intubation. His vital parameters were: Blood pressure: 50/30 mmHg, heart rate: 112/min, fever: 36.5 °C, respiratory rate: 23/min. ECG was sinus rhythm. At the 60th hour of administration, the patient was weaned from ECMO. On the 60th day, the patient whose laboratory values improved and no extra pathology developed was extubated successfully. There wasn't any pathology in vital parameters or system examinations. On the 48th day of follow-up patient was transferred to psychiatric department to continue treatment.

Conclusions: In conclusion, this case illustrates the unpredictable nature of metformin toxicity and the potential life-saving role of ECMO in refractory cases. It underscores the need for individualized management strategies and further research to refine criteria for advanced interventions, potentially improving patient outcomes.

Keywords: Metformin Overdose, ECMO, Emergency Medicine



Ref No: 4496

Pub No:

Evaluation of abdominal aortic aneurysm rupture in the emergency department is dicing with death

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Background and aim: Ruptured abdominal aortic aneurysm (AAA) is one of the most fatal surgical emergencies, with an overall mortality rate of 90%. Most AAAs rupture into the retroperitoneal cavity, which results in the classical triad of pain, hypotension, and a pulsatile mass. However, this triad is seen in only 25–50% of patients, and many patients with ruptured AAA are misdiagnosed. It is likely that different sites of rupture of AAA determine a variety of common and uncommon clinical presentations, the recognition of which can save many lives. This article reviews the clinical presentations seen in patients with ruptured AAA.

Case: A 58-year-old male patient admitted to emergency department complaint of abdominal pain beginning two days ago. His abdominal pain was intermittently present for three month and sometimes he experienced a diarrhea. He is nonsmoker and haven't remarkable medical history no hypertension or cardiac disease. He denied using any medications. His hemodynamics was stable, blood pressure was 110/70 mmHg, heart rate was 75 per/min with regular rhythm and respiration rate was 20/min. His electrocardiography was in sinus rhythm. Thoracal aorta was at normal vessel diameters. Vena cava inferior was compressed by aneurysmatic aortic segment. There were no free fluid in both abdominal ultrasonography and computed tomography.

Figure 1



Ruptured abdominal aorta on abdominal computed tomography imaging

figure 1



Ruptured abdominal aorta on abdominal computed tomography imaging



Conclusions: In conclusion, we present a rare case of AAA rupture which was previously undiagnosed. The ruptur of AAA could be incidentally when patient was evaluated in the emergency department. But also physical examination and manipulation for ultrasonography could be a reason of rupture in the emergency department. So that, if there are a suspicion of AAA, physical examination or manipulation of abdomen should be done carefully due to risk of AAA rupture.

Keywords: Aortic Aneurysm, Abdominal Pain, Hypotension, Rupture



Ref No: 4504

Pub No: P-024

An Unexpected End After a Fall: A Case Report of Traumatic Aortic Dissection

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Background and aim: Aortic dissection is a rare consequence of blunt trauma with potentially fatal consequences and requires urgent diagnosis and treatment. Traumatic aortic injury is a blunt crushing of the aorta resulting from sudden exposure to high energy. The incidence of blunt aortic injury is between 1.5% and 2% and the most common type is blunt thoracic aortic injury.

Case: A 54-year-old male patient was admitted to the emergency department with complaints of chest pain and left shoulder pain after a fall from a truck trailer. On arrival vital signs, TA was 97/78 mmHg, pulse rate was 60/min, saturation was 95%, respiratory rate was 24/min, general condition was moderate and GCS was 15 points. In his anamnesis, the patient stated that he had fallen on his left side, there was stinging in his chest when he inhaled and exhaled, and there was no dyspnea. There was no known disease and regular medication use in his medical history. Likewise, there was no history of previous operations and interventions. There were no acute pathologic findings on ECG in the patient who had cold sweating and agitation thought to be due to pain. There was no significant difference between bilateral extremity blood pressures. Upper extremity pulses were clear and lower extremity pulses were weak. Other system examinations were normal and appropriate investigations were ordered. Thoracic and abdominal CT angiography and brain CT were ordered. The patient with thoracic aortic dissection was consulted to cardiovascular surgery. The patient, who had multiple rib and clavicle fractures as additional pathology, was transferred to the intensive care unit after emergency surgery was planned after the relevant branch consultations were completed.

Figure 1

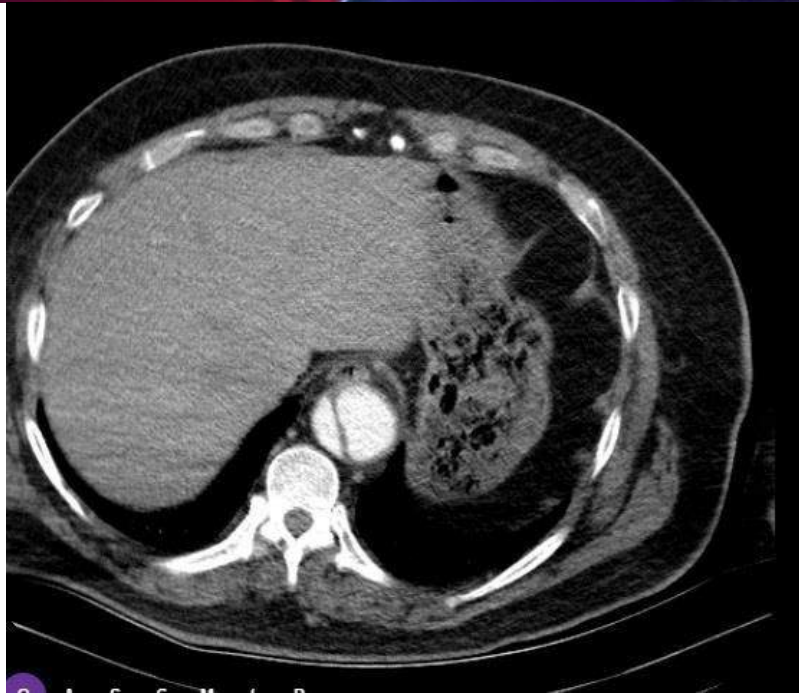


Figure 2



Figure 3



Conclusions: In patients with a history of falls from heights or high-speed motor vehicle accidents, the possibility of aortic injuries should be considered and this mortal condition should be excluded.

Keywords: Traumatic Aortic Dissection, Falling, chest pain



Ref No: 4523

Pub No: P-045

Post-Traumatic Renal Abscess: A Rare Phenomenon that Occurs One Year Later

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Background and aim: Traffic accidents are a major health problem worldwide, causing significant injuries in the acute phase. However, in some cases, the effects of trauma can manifest in the long term and lead to serious complications. Kidney abscesses are localized infections that can result from various causes, including urinary tract infections and trauma. These abscesses present with symptoms such as fever, flank pain, and tenderness in the costovertebral angle. Imaging techniques like ultrasound and computed tomography (CT) are used for diagnosis. Treatment includes broad-spectrum antibiotics and surgical interventions. This case report presents a rare case of a renal abscess, which appeared as a late complication one year after a traffic accident and was drained by a percutaneous approach.

Case: A 36-year-old male presented to the emergency department with swelling, pain, and syncope in the right lumbar region. He had a motorcycle accident one year prior and had been experiencing side pains for the last two months. Initially, a lesion suspicious for a mass or abscess was detected in the right kidney, but no intervention was done. On his second admission, swelling, increased temperature, and pain were observed in the right renal region. CT revealed a large renal abscess. Broad-spectrum antibiotics were started, and the abscess was drained percutaneously.

ct



patient



Conclusions: Xanthogranulomatous pyelonephritis (XGP) is a rare renal infection, and XGP due to complicated pyelonephritis associated with hepatic abscess is extremely rare. In this case, pyelonephritis was considered the abscess etiology. Common risk factors include obstructive uropathy, diabetes, obesity, recurrent urinary tract infections, and immunosuppression. Here, the traffic accident was a predisposing factor. CT is the definitive diagnostic method. Trauma-related renal abscesses are rare but serious. Advances in imaging and management have improved patient outcomes. The potential for complications emphasizes the need for careful monitoring and timely intervention.

Keywords: trauma, renal abscess, xanthogranulomatous pyelonephritis, flank pain, abscess

Ref No: 4670

Pub No: S-082

SCOMBROID POISONING; HISTAMINE TOXICITY

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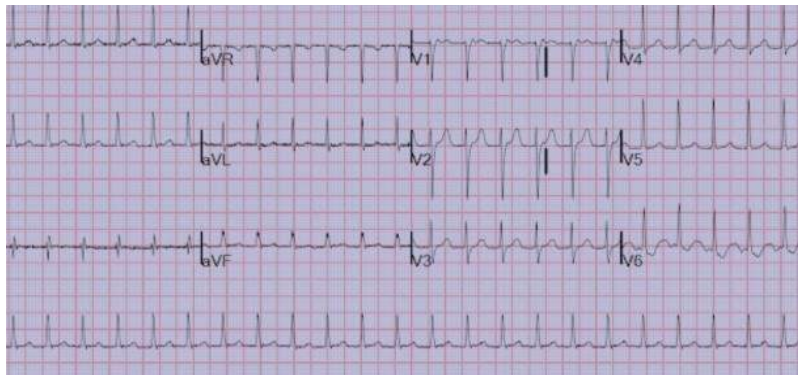
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Background and aim: Scombroid poisoning, also known as scombrototoxicosis or 'Mahi-Mahi rash', is a form of histamine toxicity that occurs after consuming fish from the Scombridae family (e.g., tuna, mackerel, marlin) or non-scombroid species like herring and sardines. Improper storage of fish at temperatures above 4°C leads to the growth of Gram-negative bacteria which convert histidine into histamine (1,2,3). The resulting histamine buildup remains even after cooking or smoking the fish, causing symptoms similar to histamine poisoning. Patients typically experience flushing, intense heat in the face and upper body, palpitations, tachycardia, and gastrointestinal symptoms like nausea, vomiting, and diarrhea. Scombroid poisoning accounts for around 40% of seafood-related poisonings in the U.S., but is often underreported due to misdiagnosis as a fish allergy. The case report aims to increase awareness of the condition by discussing clinical presentation, diagnosis, and treatment (4,5,6).

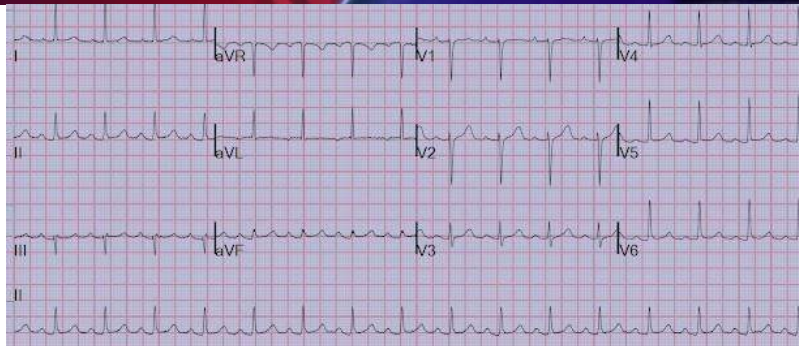
Case: A 20-year-old female presented to the emergency department with redness, burning sensation, itching, and palpitations after consuming fish a few hours earlier. She had no history of seafood allergies. Upon examination, she had diffuse rashes on her face, neck, and chest that did not fade with pressure, and her heart rate was elevated at 159/min, indicating atrial tachycardia. She was treated with IV antihistamine (Pheniramine) and metoprolol for tachycardia. Her symptoms improved, and her heart rhythm normalized after treatment. She was diagnosed with potential food poisoning or allergic reaction.

Figure 1:



Atrial Tachycardia

Figure 2:



Normal Sinus Rhythm

Conclusions: Scombroidosis should be considered in patients presenting with an allergy-like picture after seafood consumption but without known seafood allergy. The presence of similar symptoms in other individuals who consumed the same product, coupled with the patient's rapid response to antihistamine therapy, strongly supports the diagnosis. A definitive diagnosis can be confirmed by measuring the histamine level in the consumed fish or assessing plasma histamine levels in the patient (7).

Keywords: Scombrototoxin, Histamine Toxicity, Fish Allergy, Anaphylaxis



Ref No: 4736

Pub No: P-012

Rarely Used Hemodialysis Treatment for Encephalopathy: Case Report

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Background and aim: Valproic acid (VPA) is an anticonvulsant and mood regulator used in various psychiatric and neurologic conditions with a wide therapeutic window (1). While nausea, vomiting, diarrhea, increased appetite, weight gain, decreased leukocyte and platelet count, insulin resistance, obesity and menstrual irregularities may be observed with VPA use, hyperammonemic encephalopathy is rare. VPA may rarely cause hyperammonemia and delirium; failure to recognize elevated ammonia may lead to worsening of the clinical picture and death (2). Although drug discontinuation, low-protein diet, lactulose and symptomatic treatment are mostly sufficient in treatment, hemodialysis may also be required (3).

Case: A 33-year-old male patient was brought to the emergency department with complaints of decreased speech, slowed movements, unresponsiveness and blank stare for several days. The patient was noncooperative. According to the anamnesis obtained from his father, it was learned that he had known bipolar disease and his current complaints had increased for 2-3 days. On admission vital values were TA: 110/80mmHg, Nb: 72/min, Fever: 36.5°C, SpO₂: 96%. The patient's anamnesis was further analyzed and it was learned that VPA treatment was started 10 days ago by psychiatry. Valproic acid and ammonia levels were ordered with a prediagnosis of encephalopathy secondary to hyperammonemia. Valproic acid level was 122 mEq/l (50-100) and ammonia level was 181.7 mcg/dl (27-102). Considering that the patient might have delirium and encephalopathy due to ammonia elevation, he was transferred to the anesthesia intensive care unit for follow-up.

Conclusions: With this case report, it was aimed to emphasize that drug intake may be toxic even if it is not at toxic level in patients whose psychiatric treatment has been newly organized and hemodialysis may also be used in the treatment of VPA.

Keywords: Valproic acid, Encephalopathy, Hemodialysis



Ref No: 4778

Pub No:

Acute presentation of status epilepticus and stroke in a patient with type A aortic dissection

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Background and aim: Type A aortic dissection is a life-threatening condition that requires prompt diagnosis and management. It can present with various symptoms, including neurological deficits, which may complicate clinical picture. This case report describes a 55-year-old male, presented with status epilepticus due to cerebral infarct and was later diagnosed with type A aortic dissection.

Case: A 55-year-old male with no known chronic illnesses was brought after experiencing seizures at home. He had four seizures within 10 minutes, each lasting 1-2 minutes and consciousness did not return to normal between seizures. Upon arrival, his blood pressure 130/80 mmHg, heart rate 92 bpm, SpO2 94%, temperature 36.5°C. Glasgow Coma Scale score was 5 and he was in postictal status. Based on the history, he was considered status epilepticus, a loading dose of 3000 mg of levetiracetam was administered. Brain CT scan was normal. Diffusion MRI revealed an infarct in right middle cerebral artery territory. Laboratory results were unremarkable. During repeated progressive examination, it was noticed that right femoral pulse could not be obtained. Then, his blood pressure remeasured 100/50 mmHg from right arm and 130/80 mmHg from left arm. Further imaging with aortic CT angiography identified a type A aortic dissection. The dissection extended from aortic valve to iliac arteries and involved supra-aortic vessels. The right internal carotid artery (ICA) was occluded secondary to the dissection, and the left common carotid artery (CCA) was compressed by the false lumen, compromising the true lumen. Interventional radiology assessed that endovascular treatment would not be appropriate. The patient was then admitted to intensive care unit for further treatment and died in follow-up.

Conclusions: The patient's seizures and stroke were secondary to compromised cerebral perfusion due to extensive aortic dissection. This case highlights complexity of diagnosing and managing patients with aortic dissection who present with neurological symptoms.

Keywords: Aort dissection, stroke, status epileptics



Ref No: 4804

Pub No: P-051

Acute Appendicitis Following Blunt Abdominal Trauma: A Case Report, What a Coincidence!

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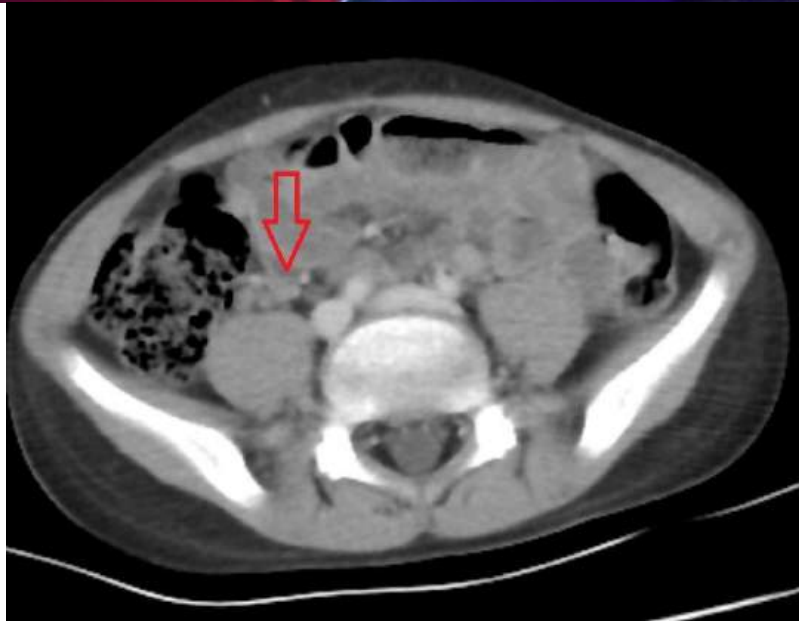
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Background and aim: Acute appendicitis, a common cause of abdominal pain, can be life-threatening if left untreated. The pathogenesis typically involves appendiceal obstruction, often due to fecaliths, undigested food, or foreign material. While the association between blunt abdominal trauma and acute appendicitis is not well-established, several case reports have suggested a potential link. This case report presents a 5-year-old male who developed acute appendicitis following a motorcycle accident, emphasizing the importance of considering this diagnosis in patients with right lower quadrant pain after blunt abdominal trauma.

Case: A 5-year-old male presented to the emergency department following a motorcycle accident. Upon arrival at the trauma room, the patient's vital signs were stable, and his GCS score was 15. During the secondary survey assessment, we noticed that the patient had minimal tenderness in the right lower quadrant. FAST-USG revealed no intra-abdominal bleeding, perforation, or other abnormalities. Initial blood results showed mild elevations in AST and amylase levels, with all other values within normal ranges. Follow-up blood tests showed persistent elevations in AST and amylase. A contrast-enhanced abdominal CT was performed given the persistent right lower quadrant tenderness and elevated enzyme levels. The CT scan revealed an appendix measuring 7mm in diameter with an edematous wall, consistent with early appendicitis. Following the CT findings, a pediatric surgery consultation was obtained, and the patient was referred to the pediatric surgery department for further management.

Enlarged and edematous appendix



In the iliac fossa, we can see the edematous appendix which is approximately 7 mm in size.

Conclusions: Based on this case and similar reports in the literature, we propose that acute appendicitis should be considered in the differential diagnosis for patients presenting with right lower quadrant tenderness or suggestive symptoms following blunt abdominal trauma. While a definitive causal relationship has not been established, clinicians should maintain a low threshold for advanced imaging in these cases to ensure prompt diagnosis and treatment.

Keywords: Acute Appendicitis, Blunt Abdominal Trauma, Trauma



Ref No: 4872

Pub No: P-065

Major Animal Bites in the Emergency Department

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Background and aim: Animal bites are common in emergency departments and can cause serious complications if not properly managed. Rare animal bites present challenges in decision-making and treatment. Key goals include minimizing infection risk, prompt wound care, and timely surgical interventions. Early antibiotic therapy, tetanus and rabies prophylaxis, and appropriate surgical measures are essential. This report examines the management of two patients with rare horse and donkey bites.

Case: Case 1: Horse Bite Resulting in Finger AmputationA 58-year-old male with diabetes presented with a left thumb amputation at the proximal metacarpal. The amputated thumb was brought in on ice. Examination showed a clean amputation with controlled bleeding. Delayed wound healing was considered due to diabetes. X-rays confirmed a first metacarpal fracture. The wound was irrigated with isotonic solution, a tetanus shot was administered, and the amputated part was stored. Dual antibiotic therapy was started. The patient was informed of the high risk of complications, including limb loss, due to diabetes. Plastic surgery planned an operation, and the patient was admitted. Case 2: Donkey Bite Leading to Flap InjuryA 66-year-old woman without chronic conditions arrived 5 hours after a donkey bite. Examination revealed a 15x20 cm flap-like skin defect from the knee to the popliteal region, with intact muscle fascia. The wound was irrigated, and rabies and tetanus vaccinations with immunoglobulins were given. Antibiotics were initiated, and plastic surgery planned a skin graft. The patient was admitted following early antibiotic treatment.

Donkey Bite



Permission was obtained from the patient when using the photo.

Patient with first finger amputated after horse bite



Permission was obtained from the patient when using the photo.

1st finger amputated





Permission was obtained from the patient when using the photo.

Conclusions: Animal bites, particularly from large animals, can cause severe trauma that may require surgical intervention. Emergency physicians must quickly assess and refer these cases to appropriate specialists. Proper wound care and infection prevention are essential. Rapid, effective management by emergency physicians, including initiating treatments and consultations, is critical to minimizing complications and improving patient outcomes

Keywords: animal bites, surgery, infection, Antibiotherapy, immunization



Ref No: 4875

Pub No:

Levetirasetam induced acute pancreatitis

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Background and aim: Acute pancreatitis is a severe gastrointestinal disorder with diverse causes, requiring prompt ED admission and personalized treatment to prevent complications. Though rare, drug-induced pancreatitis, including cases associated with levetiracetam, poses diagnostic challenges. This case report highlights levetiracetam-induced pancreatitis, emphasizing the importance of clinician awareness to avoid re-administration and improve patient outcomes.

Case: A 49-year-old male with a ten-year history of epilepsy, managed with levetiracetam, valproate, and clonazepam, presented to the ED with several days of diffuse, girdle-like abdominal pain. On admission, his blood pressure was 123/78 mmHg, and his pulse rate was 76 bpm. Laboratory tests showed elevated amylase (1315 U/L) and lipase (1478 U/L), with normal liver enzymes and renal function. White blood cell count was elevated at 18,680/mm³, and scoring systems indicated mild acute pancreatitis. Ultrasonography revealed a normal liver and gallbladder but limited visualization of the pancreas due to gas distension. An abdominal CT scan showed contamination of the peripancreatic fat planes, confirming the diagnosis of acute pancreatitis. Further investigations ruled out common causes such as gallstones and alcohol use. Attention turned to the patient's medication history, particularly the recent initiation of levetiracetam. Despite the rarity of drug-induced acute pancreatitis, levetiracetam was considered a potential cause due to literature reports. The neurology department was consulted, leading to the discontinuation of levetiracetam and the initiation of carbamazepine. The patient received appropriate treatment for acute pancreatitis, including supportive care and monitoring for potential complications.

Conclusions: Drug-induced acute pancreatitis is rare but can lead to serious complications. Emergency physicians must be aware of medications that may trigger it, enabling prompt identification and cessation of the offending drug. This awareness helps prevent re-administration, reducing the risk of recurrent episodes and potential patient harm.

Keywords: Levetirasetam, Acute pancreatitis, Clinical challenges



Ref No: 4911

Pub No: P-092

Case Report: A complication of sinusitis; pneumocephalus

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Background and aim: Pneumocephalus, also known as pneumatocele refers to the presence of air within the intracranial space. Simple pneumocephalus is usually a benign condition that occurs postoperatively, typically after head trauma or neurosurgical procedures. In some rare cases, non-traumatic pneumocephalus can be observed in infectious conditions. There have been reported cases where sinus infections, due to secondary osteolysis in the thin sinus walls over time, lead to soft tissue swelling or pneumocephalus.

Case: A 79-year-old female patient presented to the emergency department with dizziness and fainting. Her medical history included hypertension, coronary artery disease, and chronic sinusitis. On examination, blood pressure was 130/80 mmHg, peripheral oxygen saturation 98%, heart rate 100 beats/min, body temperature 36.3 degrees Celsius. Glasgow coma scale was 15. Other system examinations were normal. Laboratory parameters were hemoglobin 11.2 mg/dl, WBC 14 thousand/mm³, crp 240 mg/dl, hs-troponin 16 ng/L, creatinine 1.3 mg. Cranial brain computed tomography showed millimeter-sized pneumocephalus in extraconal and intraconal fatty planes in both orbits, more prominent in the intra cranial parasellar area. There was no evidence of fracture in the cranial bone tissue and sinusoidal bones. The patient who had clinical improvement in the follow-up was taken to outpatient follow-up after neurosurgery control.

Pneumocephalus on ct



pneumocephalus on ct 2



Conclusions: Pneumocephalus, though uncommon, can occur as a complication of sinusitis. Its rarity in clinical practice makes it noteworthy.



Keywords: Sinusitis, Pneumocephalus, Dizziness, Emergency Department



Ref No: 4933

Pub No: S-124

Getting high and going dark

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Background and aim: Optic neuropathies may have various etiologies such as ischemic, infectious, inflammatory, genetic, neoplastic and toxic. In our case, toxic optic neuropathy due to inhalant use will be presented.

Case: A 39-year-old male patient with no known history of illness or medication use presented to the emergency department with blurred vision that began two days ago and complete vision loss that began the day before. The patient was conscious and had a GCS of 15. Pupils were dilated, light reflexes were bilaterally weak, and eye movements were normal in all directions. Simultaneous complete blood count, blood gases, and biochemistry tests were performed on the patient, along with brain CT and diffusion weighted MRI. No pathology was observed and as further examinations, Contrast Brain MRI, SWI sequence MRI and Carotid color Doppler USG were performed. Doppler USG showed a 30-50% stenosis in the right carotid artery, but since the patient's vision loss was not unilateral, it was not considered amaurosis fugax. Since no pathology was observed in the patient's blood tests and imaging examinations to explain his clinical condition, a detailed history was obtained and it was learned that the patient used inhaled thinner. The patient was referred and admitted to the ophthalmology department with a diagnosis of toxic optic neuropathy.

Conclusions: Although substance abuse is very common, inhalant use accounts for very little of it. Inhalant use is the least studied form of substance abuse despite its serious potential for addiction and risk of toxicity. Optic neuropathies resulting from toxin exposure are usually characterized by bilateral, progressive, painless vision loss, and the effects may persist or symptoms may progress even if the exposed substance is removed from the environment. Post-mortem autopsy studies have shown that toluene can cause both axonal and myelin damage.

Keywords: toluene, inhalant, optic neuropathy, substance abuse



Ref No: 5023

Pub No: S-104

INTRAUTERINE OR EXTRAUTERINE? : A CASE OF ECTOPIC PREGNANCY RUPTURE

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Background and aim: Ectopic pregnancy is a condition where the developing blastocyst implants outside the endometrial cavity. In this report, we present the case of a 30-year-old patient who presented with abdominal pain and was diagnosed with a ruptured ectopic pregnancy, a cause of acute abdomen.

Case: A 30-year-old female patient presented with sudden-onset abdominal pain. She reported a history of spontaneous abortion approximately two weeks prior, with no complications, and her bleeding had ceased about four days earlier. The patient's obstetric history was G2P1A1. Physical examination revealed pain and tenderness starting in the periumbilical region and radiating to the left side. Thirty minutes after admission, her vital signs showed a blood pressure of 90/60 mmHg and a heart rate of 135 bpm. An emergency bedside abdominal ultrasound revealed the presence of free fluid in the abdomen. Laboratory investigations showed a beta-hCG level of 4,462 mIU/mL, hemoglobin at 12.40 g/dL (normal range: 12-16), and hematocrit at 36.10% (normal range: 36-46). Upon reviewing her medical history, it was noted that despite the patient's belief that she had experienced a complete abortion, the expected decline in beta-hCG levels had not occurred. This raised the suspicion of an ectopic pregnancy. A consultation with an obstetrics and gynecology specialist was made, and the patient was taken for an emergency laparotomy with a presumptive diagnosis of ruptured ectopic pregnancy.

Conclusions: Ectopic pregnancy is a complication that occurs within the first trimester of pregnancy and is associated with significant morbidity and mortality. A history of prior abortion or the presence of an ongoing intrauterine pregnancy does not exclude the possibility of ectopic pregnancy in a patient presenting with abdominal pain. Ectopic pregnancy should always be considered in the differential diagnosis of patients with sudden-onset abdominal pain, regardless of whether there is a history of abortion or an ongoing intrauterine pregnancy.

Keywords: ECTOPIC PREGNANCY RUPTURE, abdominal pain



Ref No: 5046
Pub No: S-029

An important etiology in Meige syndrome; Drug use

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Background and aim: Meige syndrome is a specific dystonic movement disease marked by the presence of blepharospasm and oromandibular muscular weakness. Dystonia is characterized by atypical involuntary postures or bodily motions caused by prolonged muscle contractions, typically stemming from neurological or medical factors. It has been documented as a side effect of conventional antipsychotic medications. This study presents a case of Meige's syndrome that occurred subsequent to short-time administration of olanzapine.

Case: A 22-year-old male patient was brought to the emergency room by his relatives with complaints of involuntary contractions in his eyelids, face and neck that started 3 hours ago and did not go away. In addition, it was learned that the patient did not have any disease or medication use in his first anamnesis. Laboratory tests were planned to exclude secondary metabolic causes that could cause this condition in the patient, but these results were also found to be normal. He told us that he had been using medication for 1 week but did not mention this in his anamnesis because he was afraid of his family. When the anamnesis was deepened, he explained that he had also used olanzapine treatment, which was started on a friend of his and his friend said that the drug made him feel very good. Thereupon, the relevant clinic thought that it was due to drug side effects. After hydration, the patient was given an intravenous biperiden ampoule. A few hours later, the patient's clinical condition improved dramatically.

Conclusions: Long-term usage of some neuropsychiatric medications may lead to this diagnosis. Nevertheless, our observations indicate that the occurrence of this clinical condition is seldom as a result of even brief course of olanzapine administration. Hence, it is imperative to scrutinize drug use in situations being presented to the emergency department with this complaint.

Keywords: Meige syndrome, blepharospasm, Dystonia





Ref No: 5085

Pub No:

How Much Impact a Needle Can Have? Co-existing of Pneumorrhachis and Wide-Spread Pneumomediastinum in a Middle Aged Farmer

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Background and aim: Pneumorrhachis and Pneumomediastinum are the conditions in which air is present within the spinal canal and mediastinum, respectively. Gordon et al. first described the Pneumorrhachis in 1977 in a myelogram. It is rarely seen among the people who apply emergency medicine. Due to Pneumomediastinum can mimic the tamponade and causes discomfort and impede oxygenation, condition must be followed. In this case, we introduce a different trauma mechanism that disrupts the "Danger Zone" of the prevertebral area, and concludes intubation and ICU follow-up.

Case: A 49-year-old man, engaged in farming, states that the spring mechanism on the door was stretched and hit his neck while closing the chicken coop with a needle. On inspection, there is a subtle punctate haemorrhagic area on the neck (2 cm below the cricoid cartilage) and the patient is placed on a stretcher for follow-up. He only mentions a cough-like complaint. On arrival, vital signs are natural, tachypnoea, tachycardia are absent. Cough increases in the 10th minute of the follow-up and the patient's saturation decreases to 92. Oxygen requirement increases. Haemoptysis starts. Oxygen support is provided to the patient who is given transamine and urgently evaluated with Neck-Thorax CT, the patient has diffuse subcutaneous emphysema and Pneumorrhachis and Pneumomediastinum are detected. He is intubated and followed up because he cannot protect the airway. The patient was transferred to Intensive Care Unit and discharged after 1 week of follow-up with appropriate antibiotherapy.

Conclusions: Pneumorrhachis and Pneumomediastinum are the conditions that an emergency physician should be able to recognize and manage. These conditions generally can be followed-up conservatively, but sometimes an intervention might be required. Disruption of the prevertebral area after a trauma (blunt or sharp) is another mechanism that should be remembered as if the importance of the route of deep cervical infection transmission.



Ref No: 5127
Pub No: S-016

Should it be reviewed?

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¹ERZURUM ŞEHİR HASTANESİ

MUSTAFA KAYA / ERZURUM ŞEHİR HASTANESİ

Background and aim: Acute anticholinergic toxicity is a condition caused by the blockade of muscarinic receptors by acetylcholine (1). Symptoms such as agitation, delirium, hallucinations, mydriasis, and dry skin may be observed (2). Anticholinergic syndrome is most commonly caused by drugs such as atropine and ingestion of plants such as *Mandragora autumnalis* (adamwort) (3). Poisonings with plants in particular may be overlooked. Treatment is fluid resuscitation and symptomatic treatment (4). Physostigmine can be used as an antidote (5). We aimed to present a case of 4 people from the same family who ingested adamwort and experienced anticholinergic poisoning.

Case: Four people from the same family came to the emergency room with palpitations, blurred vision, and body rash after eating what they said was mandrake. They were tachycardic, tachypneic, hypertensive, and had high fevers when they arrived. They were confused, pupils were mydriatic, and mucosa was dry. Anticholinergic symptoms were not detected in one patient. Three patients with symptoms were admitted to the emergency intensive care unit (ICU). Physostigmine treatment was planned for two patients whose complaints increased in the emergency ICU, and 2 mg was administered. The patients' symptoms decreased after physostigmine. The third patient did not need physostigmine during follow-up. After 3 days of follow-up in the ICU, they were discharged because there were no anticholinergic symptoms.

Conclusions: Plants thought to be harmless, such as *Mandragora autumnalis*, can cause serious toxicity. It is important to recognize that similar symptoms are seen in more than one case at a time in diagnosis and treatment. Therefore, it is extremely important to recognize patients presenting to the emergency department with this type of poisoning and to identify patients who are likely to benefit from physostigmine.

Figure



Plants eaten by patients

Keywords: anticholinergic toxicity, *Mandragora autumnalis*, physostigmine

Ref No: 5146

Pub No: S-119

A new cause of Minoca Syndrome: Thyrotoxicosis

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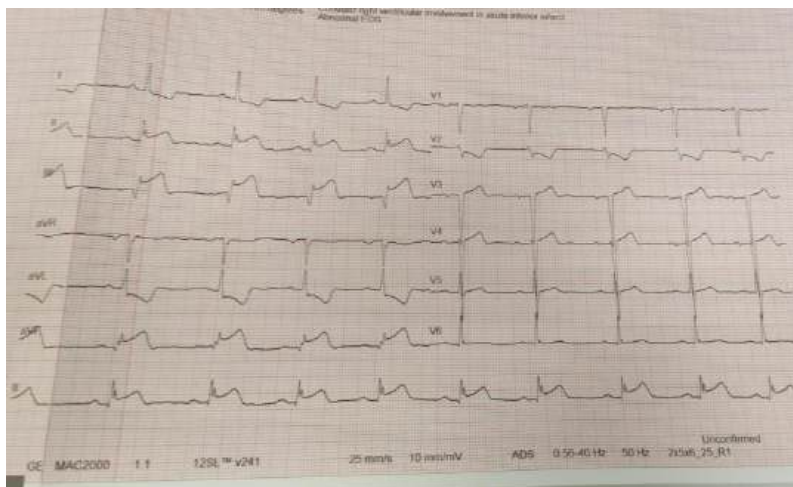
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Background and aim: MINOCA(myocardial infarction with non-obstructive coronary arteries) syndrome is the condition in which patients who meet the diagnostic criteria for AMI have <50% stenosis on coronary angiography. The documented etiology of MINOCA include coronary artery spasm, microvascular dysfunction and thrombophilic states. Thyrotoxicosis has not been documented as a cause for MINOCA.

Case: A 48-year-old man with known history of DM and hyperthyroidism presented to the ED with complaints of abdominal pain and palpitations. Patient's arrival vital signs are saturation: 100%, heart rate of 194 bpm , body temperature: 36,5 °C , blood pressure: 160/70mmHg. His ECG is SVT. On physical examination, there was abdominal tenderness. Lab results pH: 7,22 , Glucose: 450 mg/dl, Bicarbonate: 9,4 mmol/l. There were ketones in urine analysis. Troponin level was 13-15 ng/ml. Despite the treatment given, SVT persisted. It was learned that he used medication irregularly. Burch-Wartofsky score is calculated 65 in a patient with suspected thyrotoxicosis. Patient is given methimazole and propranolol. Pulse returned to normal. ECG was taken again and ECG was evaluated as inferior STEMI and patient was taken to angiography laboratory. No significant stenosis was detected in the angiography. EF was found % 60 in Echo. TFT were also examined during service follow-ups, TSH was < 0.005 µU/ml, T3 was 12 pg/ml, T4 was 2.9 ng/dl. The patient was discharged after treatment for DKA and thyrotoxicosis.

Image 1 : ECG with STEMI after thyrotoxicosis treatment



Conclusions: The mechanism of Minoca syndrome isn't yet clear. Thyrotoxicosis isn't currently among these causes. However, coronary vasospasm and thrombophilia caused by thyrotoxicosis may cause MINOCA syndrome. Possible



mechanisms of thyrotoxicosis-induced vasospasm include enhanced coronary sensitivity to vasoconstrictors and reduced sensitivity to vasodilators. Along with a hypersensitivity to vasoconstrictive agents, this hypermetabolic state precipitates an imbalance between blood supply and oxygen demand during thyrotoxicosis. This diagnosis should be kept in mind in patients presenting to the hospital with chest-pain.

Keywords: thyrotoxicosis, MINOCA, STEMI



Ref No: 5199
Pub No: S-046

A rare case of genetic inheritance: Moya moya Disease

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Background and aim: Moya moya disease (MMD) is a chronic cerebrovascular condition characterized by bilateral stenosis or occlusion of the terminal portions of the internal carotid arteries and/or proximal segments of the anterior and middle cerebral arteries. The term "moya moya" originates from the Japanese word for "puff of smoke," reflecting its angiographic appearance. In children, it typically presents with ischemic symptoms, whereas adults often exhibit hemorrhagic manifestations. The gold standard for imaging is Digital Subtraction Angiography (DSA), but CT angiography (CTA) is commonly used in emergency settings for early suspicion. Treatment options range from antiplatelet therapy to revascularization surgery. This report presents the clinical and diagnostic evaluation of a patient suspected of having a moya moya variant.

Case: A 42-year-old female presented to the emergency department after sudden collapse during exercise. She had a history of hypertension and angioedema. Brain CT at an external center revealed intraparenchymal and subarachnoid hemorrhage, leading to her referral for neurosurgical evaluation. Upon arrival, her Glasgow Coma Score was 10. Physical examination showed right-sided weakness and left-sided motor deficits. CTA demonstrated occlusion of the left MCA M1 segment with collateral vascular structures suggestive of a moya moya variant. The patient was managed conservatively with plans for elective DSA and possible indirect bypass surgery. Unfortunately, she passed away on day three due to cardiac arrest.

Conclusions: Moya moya disease should be considered in the differential diagnosis of hemorrhagic or ischemic cerebrovascular events. Genetic factors play a significant role, and imaging modalities like CTA and DSA are crucial for diagnosis. Optimal management requires a combination of pharmacological and surgical interventions. This case highlights the importance of considering moya moya in adult patients with spontaneous intracranial hemorrhage.

Keywords: Moya Moya Disease, Intracranial Hemorrhage, CT Angiography (CTA), Revascularization Surgery

Ref No: 5309
Pub No: S-042

Acute Angle-Closure Glaucoma Developing During the Treatment of an Asthma Attack: A Case Report

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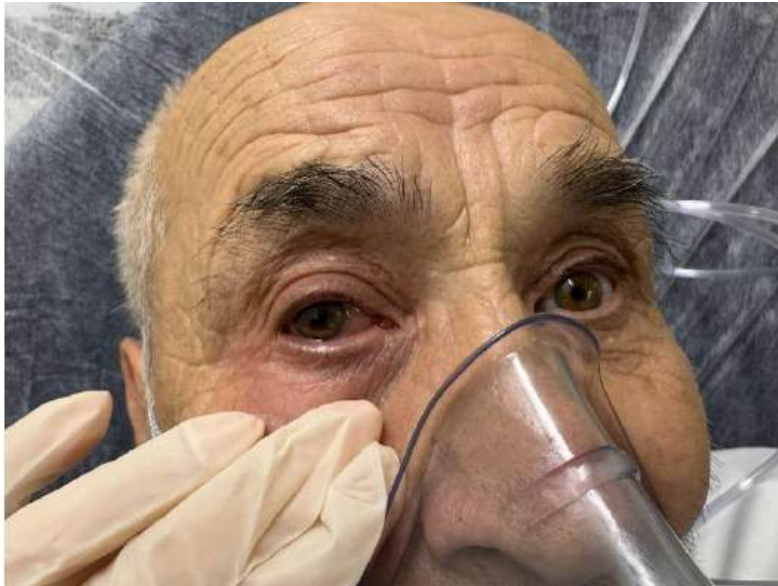
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Background and aim: Acute angle-closure glaucoma (AACG) is a serious ophthalmological emergency that can be triggered by certain medications, including bronchodilators. Ipratropium bromide, a commonly used anticholinergic bronchodilator for asthma, has been associated with rare cases of AACG. This case involves an 80-year-old female patient who developed AACG following ipratropium bromide administration during an asthma attack.

Case: An 80-year-old female with a history of asthma and hypertension was brought to the emergency department due to an asthma attack. Physical examination showed the use of accessory respiratory muscles, and diffuse wheezing was noted on auscultation. Her vital signs were stable with BP: 160/70 mmHg, pulse: 76/min, and SpO₂: 97%. She was treated with ipratropium bromide and salbutamol via nebulizer. During treatment, the patient complained of right eye pain and blurred vision that had begun one hour earlier. Ophthalmologic examination revealed an irregular, non-reactive right pupil with conjunctival hyperemia. Acute angle-closure glaucoma, potentially induced by ipratropium bromide, was suspected. After an ophthalmology consultation, the patient was diagnosed with narrow-angle glaucoma and increased intraocular pressure. She was referred to a specialized clinic for further evaluation and treatment.

Figure: Nebulized Medication-Induced Acute Angle-Closure Glaucoma in an Elderly Patient





This image shows an elderly patient with conjunctival hyperemia and pupil irregularity in the right eye following the administration of nebulized bronchodilators, including ipratropium bromide, during asthma treatment. The patient's symptoms, including eye pain and blurred vision, were indicative of acute angle-closure glaucoma, a rare but serious complication associated with the use of these medications.

Conclusions: İpratropium bromide is commonly used as a bronchodilator in asthma treatment, but it can rarely cause AACG. Nebulized medications may trigger this complication if they come into contact with the eyes. It is crucial that the nebulizer mask fits securely on the face to prevent medication from reaching the eyes, especially in elderly patients and those predisposed to glaucoma. Monitoring eye health in such patients is essential during treatment. While rare, ipratropium bromide can lead to acute angle-closure glaucoma. The risk should be considered, particularly in elderly patients and those with existing ophthalmological conditions. Early diagnosis and treatment are critical to avoid permanent eye damage.

Keywords: Acute angle-closure glaucoma, Asthma, Ipratropium bromide



Ref No: 5354

Pub No: S-079

Spontaneous Angiomyolipoma Hemorrhage: Wunderlich Syndrome; A Rare Cause of Abdominal Pain

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Background and aim: Angiomyolipomas (AMLs) are benign neoplasms of the kidney, consisting of a variety of tissues resembling blood vessels, smooth muscle, and fat tissue. AMLs have been reported in 0.13% to 2.2% of asymptomatic adults undergoing imaging. In a population-based study of approximately 18,000 asymptomatic adults undergoing renal ultrasound, renal AMLs were detected in 24 patients (0.13%). Another study involving around 2,000 potential kidney donors who underwent computed tomography scans found renal AMLs in 43 patients (2.2%). The vast majority of renal AMLs are asymptomatic. Hemorrhage is the most feared complication of AMLs, leading to pain, anemia, and sometimes hemorrhagic shock. Renal AMLs may rupture into subcapsular and perirenal spaces, making them the most common cause of non-traumatic renal hemorrhage known as Wunderlich syndrome. AMLs larger than 6 cm are more likely to hemorrhage. Patients with AML who develop active hemorrhage should undergo resuscitative measures if they are unstable, and, if possible, angiography and selective arterial embolization should be performed immediately to control the bleeding. This case report aims to present a 65-year-old geriatric patient who was admitted to the emergency department with abdominal pain and syncope and was diagnosed with spontaneous renal hemorrhage due to an AML.

Case: A 65-year-old male .No known medical history aside from benign prostatic hyperplasia. Complaints of left lower quadrant pain and syncope. Blood pressure: 130/80 mmHg, Pulse: 90 bpm, ECG: Normal sinus rhythm, Rectal exam: Normal. Hemoglobin: 14.4 g/dL, follow-up hemoglobin after 2 hours: 12.7 g/dL . Imaging revealed a likely spontaneous hemorrhage from an angiomyolipoma in the lower pole of the left kidney, leading to a retroperitoneal hematoma. Urology consultation was sought. Emergency angiographic embolization was recommended.

Figure 1



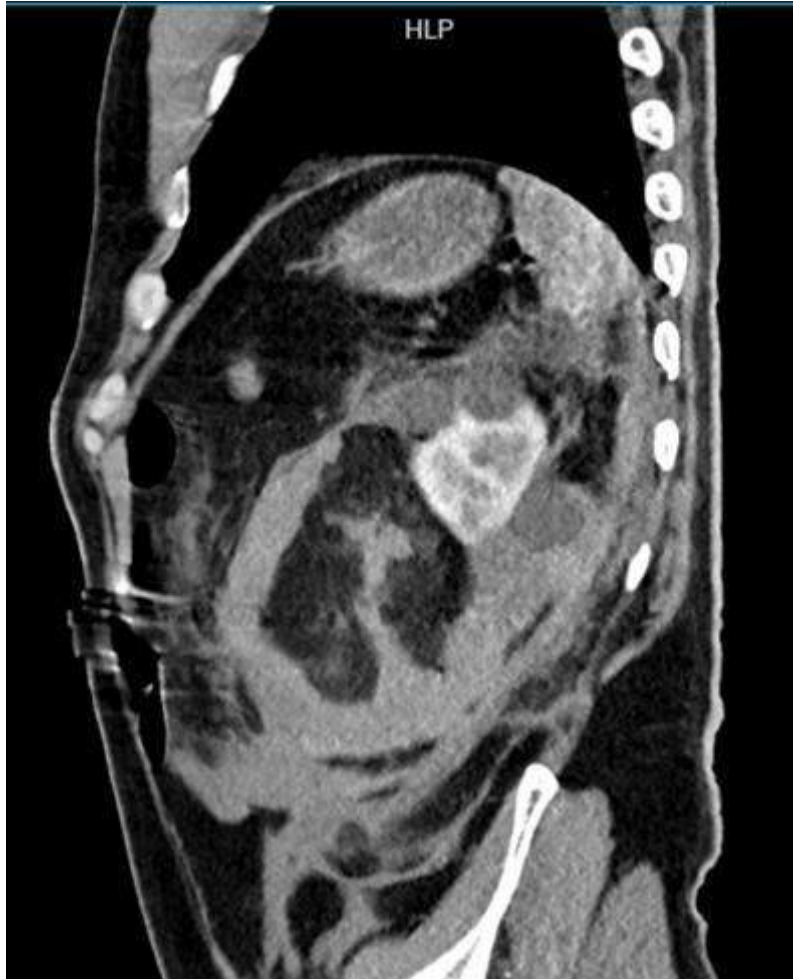
Bilateral renal cysts and a left renal AML extending into the retroperitoneum were observed

Figure 2



Bilateral renal cysts and a left renal AML extending into the retroperitoneum were observed

Figure 3



Bilateral renal cysts and a left renal AML extending into the retroperitoneum were observed

Conclusions: In patients presenting to the emergency department with non-traumatic abdominal pain and syncope, spontaneous renal hemorrhage secondary to AML, or Wunderlich syndrome, should be considered in the differential diagnosis.

Keywords: Angiomyolipoma, Wunderlich Syndrome, Hemorrhage

Ref No: 5368

Pub No: S-015

SCIWORA

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Background and aim: In this study, we present a case of SCIWORA evaluated in the emergency department where initial radiological imaging did not reveal significant pathology, emphasizing the importance of early diagnosis and treatment of spinal cord injuries.

MR



Case: A 33-year-old male patient, who suffered cervical injury after falling from a construction scaffold, was evaluated in the emergency department within the first hour of trauma. Upon primary examination, the patient was conscious, alert, and cooperative, with isocoric pupils. Equal chest expansion was noted bilaterally, and auscultation revealed normal breath sounds bilaterally without jugular venous distention or tracheal deviation. A focused assessment with sonography for trauma did not reveal any acute pathology. Due to the patient's vital signs being within normal range, a secondary examination was conducted. The patient was found to be tetraplegic with sensory loss during the secondary examination. Computed tomography (CT) and plain radiography showed no acute pathology, leading to consideration of SCIWORA, and magnetic resonance imaging (MRI) was performed. The cervical MRI revealed degenerative signal loss at the C2-C3 level. MR images confirming spinal cord injury in the patient are shown in Figure 1 and Figure 2. The patient was treated with intravenous high-dose steroids according to The National Acute Spinal Cord Injury Study (NASCIS)-3 protocol, followed by initiation of infusion and consultation with neurosurgery for urgent surgical intervention.

Conclusions: While SCIWORA syndrome is predominantly observed in the pediatric age group, it tends to occur more commonly in the cervical region rather than the thoracic and lumbar regions. Therefore, detailed physical examination should be conducted in trauma patients, and spinal cord injury should be considered even if no pathology is detected on plain radiography and computed tomography imaging in patients with neurological deficits.

Keywords: SCIWORA, SPİNAL CORD INJURY, SPİNAL CORD INJURY WITHOUT RADIOGRAPHİC ABNORMALİTY İN AN ADULT



Ref No: 5392

Pub No:

Cerebrovascular Disease And Type 1 Aortic Dissection

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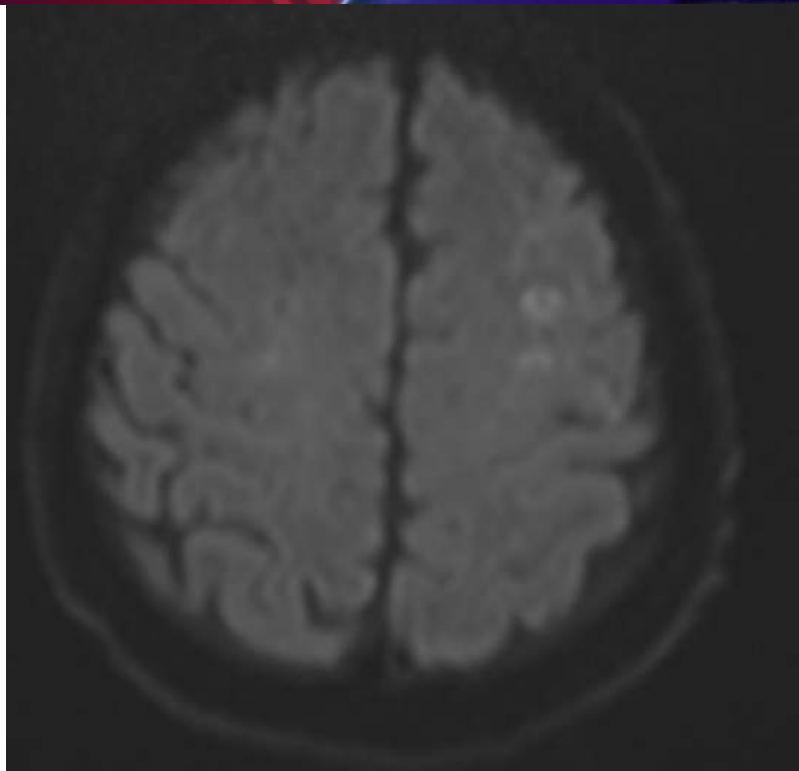
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Background and aim: Type 1 aortic dissection is a catastrophic clinical picture originating from the ascending aorta. Perioperative mortality is an average of 22%. In general, in-hospital mortality for type 1 dissections is around 30%. Delay in diagnosis increases hourly mortality by 1%. Aortic dissection may present clinically with conditions such as acute coronary syndrome, pulmonary embolism, cerebrovascular disease, and acute mesenteric ischemia

Case: A 58-year-old male patient was admitted to our emergency department (ED) with dizziness, weakness, epigastric pain, and disorientation. Vital signs: Blood pressure 106/64 mmHg, pulse 71 beats/minute, fever 38.3 °C, sat O2 95%. Leukocytes were 14760/μL in complete blood count. Diffusion-weighted magnetic resonance imaging revealed bilateral multiple diffusion restrictions. During follow-up in the ED, the patient's epigastric pain increased and blood pressure decreased to 72/40 mmHg. After the control hemoglobin value decreased from 14.7 g/dL to 10.4 g/dL and the d-dimer value was measured as 4.26 ug/mL, abdominal and thoracic computed tomography angiography revealed a dissection flap starting from the aortic root, extending from the thoracic descending to the aorta, extending to both main iliac arteries, the left common carotid artery, the subclavian artery, and the brachial trunk and the patient was diagnosed with type 1 aortic dissection and was taken to emergency surgery by the cardiovascular surgeon. The patient was discharged 5 days after admission to the clinic

Ovoid, punctate diffusion restriction



Type 1 aortic dissection



Type 1 aortic dissection



Conclusions: Patients with aortic dissection usually present to the ED with sudden onset of severe chest pain. Neurological symptoms may also be observed in these cases. Studies have shown that 31-39% of acute aortic dissections are initially misdiagnosed. Early preoperative diagnosis with advanced imaging methods and a detailed history is life-saving in the management of patients with type I aortic dissection

Keywords: aortic dissection, cerebrovascular disease, misdiagnosis



Ref No: 5493

Pub No: P-080

Importance of Family History for Easy Diagnosis: Familial Cystinosis

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Background and aim: Cystinosis is a rare autosomal recessive lysosomal storage disorder characterized by the accumulation of intracellular cystine crystals in various organs and tissues, potentially leading to severe organ dysfunction. It is the most common hereditary cause of renal Fanconi syndrome. In cystinosis, numerous organs are affected including the kidneys, cornea, bone marrow, thyroid, muscles, peripheral nerves, liver, and spleen; however, renal failure determines the prognosis. Cystinosis is an autosomal recessive multisystemic disease caused by mutations in the CTNS gene located on the short arm of chromosome 17. The CTNS gene encodes a protein known as "cystinosin," a lysosomal cystine transporter. Mutations in this gene impair lysosomal transport, leading to widespread cystine crystal accumulation in many organs.

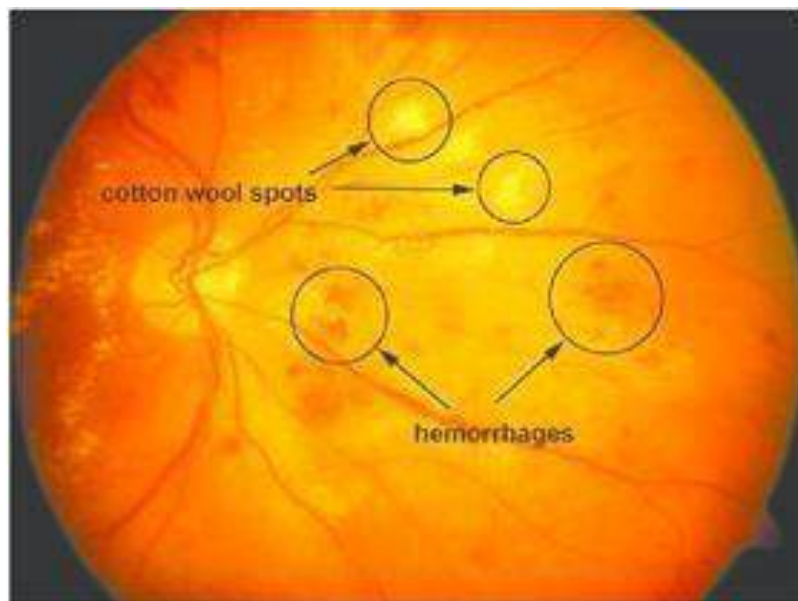
Case: A 27-year-old male patient presented to the emergency department with complaints of joint pain, weakness, nausea, and diarrhea. It was learned that the patient had returned from military service 5 months ago and had been experiencing nausea and weakness since then. A month ago, a kidney biopsy was planned due to elevated creatinine levels detected at an external center. The patient presented to our emergency department 5 days before a scheduled nephrology appointment due to worsening nausea, weakness, and diarrhea over the past 2 days. The patient's vital signs upon admission were recorded as 221/140 mmHg blood pressure, spO2: 93% on room air, and pulse: 120/min. The patient had no known chronic illnesses aside from panic attacks, and there was a family history of cystinosis. It was noted that the patient had been using Citoles regularly but had stopped it 5 months ago.

Figure 1



Cotton wool spots and hemorrhagic foci

Figure 1



Cotton wool spots and hemorrhagic foci



Conclusions: Identifying the etiology of kidney failure in patients presenting to the emergency department, obtaining a detailed history, early diagnosis, treatment, and appropriate referral to specialized departments are crucial for the long-term prognosis of patients.

Keywords: Familial cystinosis, Acute vision loss, Anamnesis



Ref No: 5495

Pub No:

A military injury: Shrapnel from an artillery shell in the C1 vertebra

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Background and aim: Penetrating gunshot injuries to the head and neck region can have a highly lethal course depending on the affected anatomical area. Especially in soldiers present in war zones, the likelihood of injury through this mechanism is quite high(1). In this case, we describe a foreign body adjacent to the C1 vertebra in a soldier injured by shrapnel from an artillery shell in the occipital region.

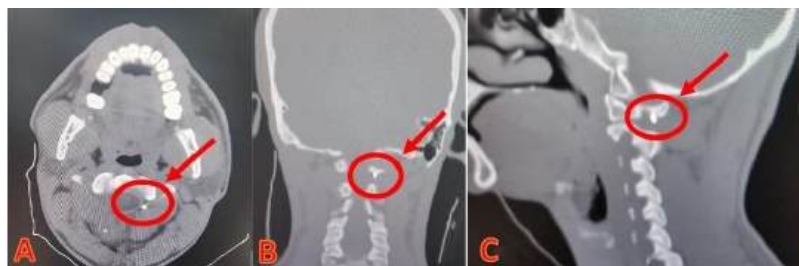
Case: A 27-year-old male soldier presented to the emergency department due to an injury from shrapnel from an artillery shell to the occipital region. The patient was hemodynamically stable and had no symptoms other than a headache. External examination revealed a 1x1 cm laceration on the occipital region (Figure 1). Neurological examination showed motor strength of 5/5 in all extremities. Computed tomography imaging revealed shrapnel in the left posterolateral area of the C1 vertebra, located at the widest part of the lateral arch's inferior aspect, measuring 5.9 mm in length (Figure 2). Since the patient did not exhibit any neurological deficits, surgical intervention was not considered initially. The treatment plan included wound care, antibiotic therapy, and analgesia. The patient was admitted to the neurosurgery service for follow-up purposes. Over the course of 7 days of observation, there were no neurological symptoms observed. Additional imaging showed that the shrapnel remained in place without displacement (Figure 3).

Figure 1



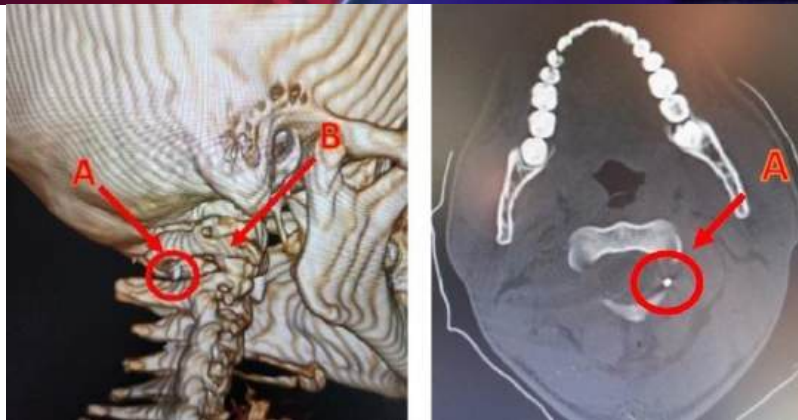
Sharapnel entry wound

Figure 2



(A) Axial section, (B) coronal section, (C) sagittal section

Figure 3



(A) Foreign body (shrapnel), (B) C1 spine in CT scan after one week follow-up

Conclusions: Amirjamshidi et al. found that patients with penetrating head trauma can be followed up without surgical intervention unless they develop a decrease in Glasgow Coma Scale, change in consciousness or additional neurological symptoms(2). Lawless et al. concluded that surgical treatment is not superior to conservative treatment in penetrating spinal cord injuries(3). The treatment algorithm for penetrating spinal cord injuries is controversial. Having knowledge about diagnosis and treatment approaches is particularly important for emergency department physicians.

Keywords: Spinal injury, Military injury, C1 vertebra, Shrapnel



Ref No: 5538

Pub No: P-138

Unlucky Spontaneous

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Background and aim: Primary spontaneous pneumothorax (PSP) is one of the most common lung diseases affecting adolescents and young adults. PSP is an important clinical problem. The annual incidence is estimated to be 18-24 males/100 000 and 6-9.8 females/100 000. The highest incidence (for both sexes) occurs in individuals aged 15-34 years.

Case: A 16-year-old male patient presented with sudden onset of stabbing chest pain in the right hemithorax and shortness of breath. There were no features in the patient's past history and surname. Vital findings at the time of presentation to the emergency department were as follows: Glasgow coma scale: 15 (E4 V5 M6), saturation: 97%, pulse: 110. Physical examination findings of the patient; lung sounds in the right lung were significantly decreased compared to the left lung and external system examinations were normal. After thorax computed tomography, bilateral spontaneous pneumothorax was detected as 40% in the right lung and 5% in the left lung. The patient was consulted to the paediatric surgery department for tube thoracostomy and subsequent underwater air drainage and tube thoracostomy was performed in the right lung.

Conclusions: Bilateral spontaneous pneumothorax is a thoracic surgery emergency that should be rapidly diagnosed and treated because it can rapidly progress to tension pneumothorax and cause mortality and morbidity.

Keywords: pneumothorax, chest pain, tube thoracostomy



Ref No: 5560

Pub No: S-032

Locked in Syndrome

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Background and aim: Locked-in syndrome is a rare condition seen in emergency departments. It is characterized by tetraplegia and aphasia, despite the patient having intact consciousness and cognitive abilities. Patients typically communicate only through vertical eye movements. If unfamiliar, physicians may overlook this syndrome.

Case: In this case, the patient was a 49-year-old male with no prior medical or surgical history, nor any regular medication use. One evening, he informed his wife that he wasn't feeling well. After he stopped responding to questions, his wife called emergency services (112). Upon arrival, the 112 team assessed his Glasgow Coma Scale (GCS) at 12. The patient, unconscious on the stretcher, was intubated after vomiting. His vital signs included a blood pressure of 180/112 mmHg, oxygen saturation of 95%, blood sugar of 153 mg/dL, pulse of 105 bpm, and temperature of 36.3°C. Blood tests showed no abnormalities. Imaging revealed a hemorrhage at the pons level, and treatment was initiated with nicardipine (5 mg/hour) and mannitol (1 g/kg). MRI could not be performed due to intubation. The patient was consulted with neurology and neurosurgery departments. During the follow-up, only vertical eye movements were observed, leading to the diagnosis of locked-in syndrome. The patient was transferred to the neurology intensive care unit.

bleeding in the pons



Conclusions: While early intubation can be life-saving, it may also increase the risk of hospital-acquired pneumonia and prolonged ICU stays, contributing to higher mortality rates. Pneumonia is the leading cause of death in locked-in syndrome patients. Sadly, the patient did not recover and passed away on the 14th day of hospitalization due to pneumonia. The possibility of locked-in syndrome should always be considered when making intubation decisions.

Keywords: locked in syndrome, intubation, pneumonia



Ref No: 5620

Pub No: S-028

Rhabdomyolysis and Mc Mahon Classification

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Background and aim: Rhabdomyolysis is characterized by skeletal muscle damage caused by any mechanism that damages myocytes and their membranes. The most reliable diagnosis is made when serum creatine kinase (CK) levels exceed 1000 IU/L. The McMahon score was developed to predict mortality and the need for renal replacement therapy. The score uses patient age, gender, non-secondary rhabdomyolysis, and laboratory parameters such as creatinine, calcium, creatine kinase (CK), bicarbonate, and phosphorus levels.

Case: A 72-year-old male patient was brought with deteriorating general condition and altered consciousness. His general condition was poor, GCS: 14. BP: 105/75 mmHg, SpO₂: 94%, Pulse: 96 beats/min, blood sugar: 450 mg/dL, There was widespread edema, pain, and tenderness in the proximal part of both calves in the extremities. There was redness in the epidermis with a peeling appearance in the proximal left calf. Less than 100 cc of dark brown fluid came from the urinary catheter. Laboratory: pH: 7.35, HCO₃: 20 mEq/L, Hgb: 16.4 g/dL, WBC: 21,000/mm³, : BUN: 92 mg/dL, creatinine: 8.44 mg/dL, calcium: 8.1 mmol/L, potassium: 6.3 mmol/L, phosphorus: 8.1 mg/dL, ALT: 534 U/L, AST: 864, CRP: 238 mg/L, creatine kinase: 32,840. Ultrasonography showed skin and subcutaneous edema and increased echogenicity in the proximal left calf. McMahon score was calculated as 11 points. Aggressive hydration was initiated in the emergency department and hemodialysis was initiated. The patient was admitted to the intensive care unit with diagnoses of rhabdomyolysis, multi-organ dysfunction, and septicemia. The patient died on the 12th day of intensive care after interventions for cardiac arrest.

Conclusions: The McMahon score can be used as a tool to assist in clinical decision-making processes, allowing physicians to identify high-risk patients and develop more effective management plans.

Keywords: Rhabdomyolysis, Mc Mahon Classification



Ref No: 5771

Pub No: S-058

An Atypical Presentation of Pulmonary Embolism Mimicking Neurological Symptoms in an Elderly Patient

Safa Dönmez¹

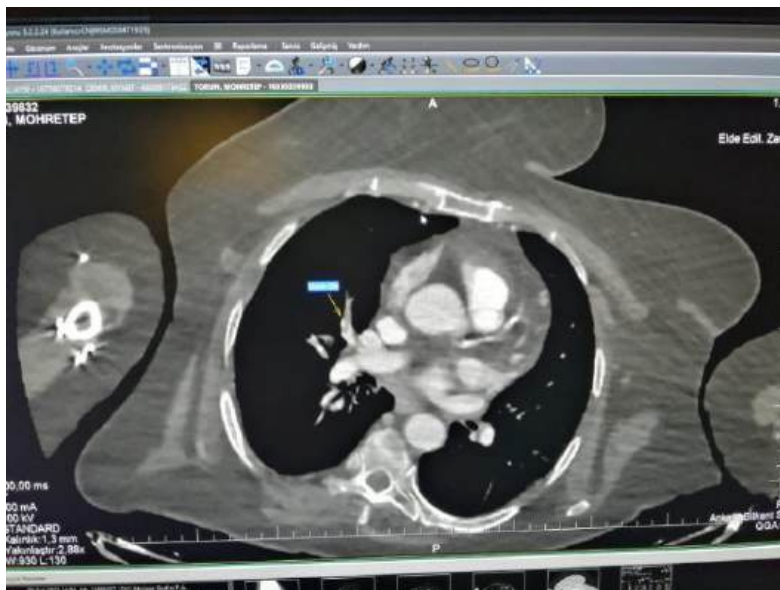
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Background and aim: Pulmonary embolism (PE) is a life-threatening clinical condition that occurs when an embolus, usually originating from deep vein thrombosis (DVT) in the legs, arms, pelvic veins, jugular vein, or inferior vena cava, enters the pulmonary circulation. In the United States, approximately 200,000 individuals are diagnosed with pulmonary embolism each year. Its incidence increases with age, and it is the second leading cause of sudden, unexpected, non-traumatic deaths. While the mortality rate is 1% in patients under the age of 50, who are hemodynamically stable and have no comorbidities, this rate increases to 45% in cases of PE with circulatory shock. In this report, we present a case of pulmonary embolism with atypical clinical features.

Case: A 74-year-old female presented to the emergency department with fatigue, leg weakness, and inability to walk. She was conscious, oriented, and her vital signs were normal. Neurological examination was unremarkable, though she could not walk independently. Lab tests showed mild leukocytosis, elevated CRP, and hyponatremia. Imaging studies ruled out central causes, including ischemic or hemorrhagic stroke. Despite sodium correction, her condition did not improve. Further chest and abdominal CT angiography revealed a pulmonary embolism. She was hemodynamically stable, started on low molecular weight heparin (LMWH), and admitted for monitoring in the pulmonary care unit..

CT scan image





Conclusions: This case highlights the importance of considering a diagnosis of pulmonary embolism in patients presenting with atypical neurological symptoms. It demonstrates that early diagnosis and appropriate treatment can prevent serious complications. In particular, in elderly patients with comorbidities, PE can present without classic symptoms, making it crucial to maintain a broad differential diagnosis.

Keywords: Pulmonary embolism, pulmonary care, neurological symptoms, diagnosis

Ref No: 5860

Pub No: S-052

Endophthalmitis and Severe Keratitis: A Complication of Contact Lenses

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Background and aim: Microbiological keratitis is a severe and potentially blinding disease. Developed countries' contact lens wearers, particularly those who neglect adequate eye cleanliness, face the greatest danger. The prompt identification and timely action can prevent the transmission of infection and irreversible harm to the cornea. An endophthalmitis is an inflammation of the inner part of the eye accompanied by the discharge of fluid into the vitreous cavity.

Case: An 80-year-old female patient applied to the emergency department with complaints of vision loss, eye redness, tearing and discharge in the left eye. The patient's vital signs and other system examinations were normal. She described difficulty in opening the left eyelid and pain. The eye examination revealed widespread hyperemia in the conjunctiva, corneal damage, infiltrates and hypopyon (Figure 1,2). The visual examination revealed almost complete vision loss. Orbicular CT performed to evaluate spread and additional damage revealed no findings other than damage to the anterior segment of the eye (Figure 3). It was learned that the patient had been using contact lenses for about 1 month and had not removed them for a long time and had been neglected in this regard. An ophthalmology consultation was requested for the patient. A local therapy regimen consisting of propamidine, ganciclovir, moxifloxacin twice daily, flu-conazole, tropicamide 1%, and prednol was administered. The patient was admitted to the eye diseases clinical service for hospitalization. Improvement in clinical status was observed gradually during hospitalization.

Figure 1



Left Eye inspection view

Figure 2



Left Eye inspection view

Figure 3



Orbital CT image

Conclusions: Endophthalmitis associated with keratitis is a critical ocular emergency that poses a significant risk to vision; its treatment is quite challenging. Endophthalmitis can develop secondary to ocular surgery or trauma, resulting in corneal decompensation and scarring. Inspection and history are very important in complaints of vision loss related to the eye and this issue should not be neglected in emergency departments.



Keywords: vision loss, keratitis, endophthalmitis, emergency department, contact lens



Ref No: 5885

Pub No:

The importance of evaluating pediatric imaging with medical history in the emergency department: The pitfall diagnosis of a healing cephalic hematoma with calcification

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Background and aim: Delayed healing of a cephalic hematoma(CH) may be with calcification. After 1-year of age, a calcified area that does not heal may require surgical treatment for cosmetic purposes. This condition is often diagnosed sporadically and becomes confusing when associated with a secondary trauma. We aimed to draw attention to this condition in pediatric patients presenting to the emergency department, to emphasize the importance of medical history during radiologic evaluation and to share our experience in imaging of calcified CH.

Case: A 2-year-old male patient was evaluated in the ED due to trauma. The complaint of presentation to the ED was increased crying and restlessness after falling off the couch at home. Initial examination revealed swelling and ecchymosis in the right frontal region. Consciousness was clear, oriented, cooperative, general condition was good, mobile, active and interested in her surroundings. It was learned that he had one complaint of vomiting. Subsequently, a suspicious area was observed on direct radiography performed in the ED(Figure 1) and a brain CT was ordered. Although no bone fracture, intracranial hemorrhage or other pathology was detected, a lesion was seen outside the base of the brain(Figure 2). When the patient's medical history was questioned about the condition which was not compatible with the patient's complaints, it was learned that she had a difficult delivery and associated CH. It was understood that the structure in the images was a CH that healed with calcification. The patient was discharged with a head trauma form and recommendations after adequate observation in the ED.

Figure 1. Head Direct Radiograph Images of the Patient

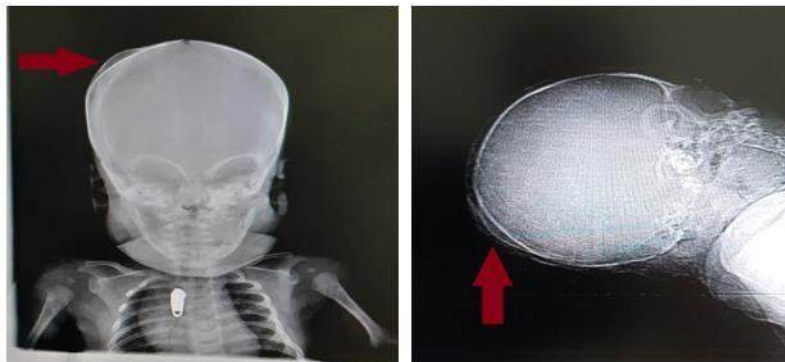
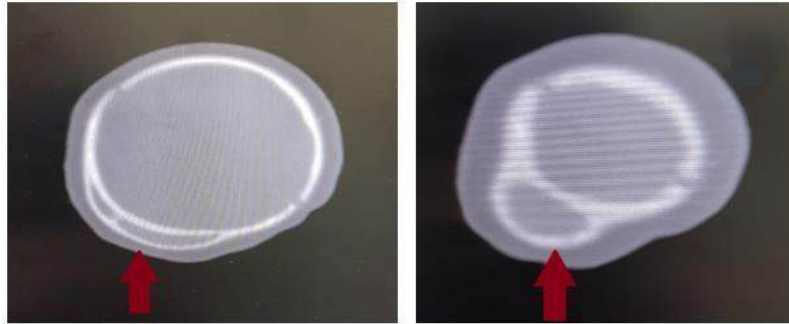


Figure 2. Brain CT Images of the Patient



Conclusions: Considering that a detailed initial history of this case would have reduced the need for brain CT scan and X-ray exposure, it is important to question the history of pediatric trauma patients including birth and even prenatal period and to perform radiologic evaluations in the light of this information.

Keywords: Cephalohematoma, Calcification, Radiology, Diagnostic X-Ray, Head Trauma



Ref No: 5909

Pub No: P-001

An Unusual Case Presenting with Chest Pain: Splenic Abscess Perforation

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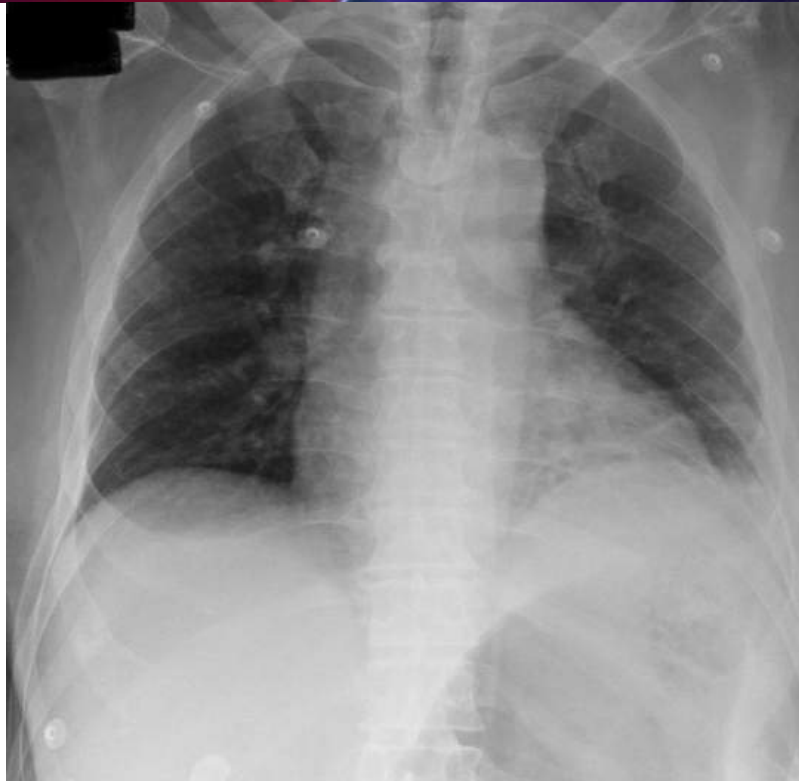
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Background and aim: Chest pain is a common reason for the emergency department (ED). Although the first diagnoses that come to mind are usually cardiological or pulmonary diseases, intra-abdominal pathologies should be considered. In this case, we would like to present a patient who was admitted with chest pain and in whom we detected splenic abscess perforation.

Case: A 62-year-old male patient was admitted to the ED with chest pain and left-side pain. He describes a widespread stabbing chest pain that has persisted for approximately 2 days and has worsened over the last few hours. There is no abdominal pain or fever. He had diabetes mellitus, hypertension, hyperlipidemia, and coronary artery disease. He had known no immunosuppression and recent trauma. His vital signs were stable and his physical examination was normal. Sinus tachycardia was found on electrocardiogram. The blood tests revealed; high levels of leukocytes ($13.55 \times 10^9/L$), neutrophils ($12.29 \times 10^9/L$), c-reactive protein (378 mg/L), procalcitonin (2,37 ug/L) and slightly elevated Troponin-T (41-35-26 ng/L). Echocardiography revealed ejection fraction %60, wall movement defect was not detected, and no vegetation. When the patient's upright chest radiograph was examined, no free air was observed. However, the stomach was very large and distended (Figure 1). When the patient's tomography was examined, there was an irregularly bordered cystic lesion in the middle part of the spleen, approximately 70 mm in size, with an air image, suggesting a splenic abscess. There was free fluid in the perisplenic area and free air in the abdomen (Figure 2, 3). The patient's cultures were taken and IV antibiotics were started. He was taken into emergency surgery by the general surgery clinic.

Figure 1.



Upright chest radiograph imaging showed no free air.

Figure 2.





Computed tomography imaging showed splenic abscesses perforation.

Conclusions: Splenic abscess perforation is an unusual disease that can cause mortality. It should be considered in patients admitted with atypical complaints such as chest pain.

Keywords: chest pain, splenic abscess, perforation, emergency



Ref No: 5922

Pub No: S-101

Muscle relaxant? Which one?

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Background and aim: Since diclofenac sodium and thiocolchicoside are widely used drugs, their effects and side effect profiles are well known to emergency room physicians. There are no reported cases of coma or paralysis due to these drugs.

Case: A 53-year-old male patient was brought to our emergency department with jaw numbness and fainting that started immediately after intramuscular(IM) administration of Dikloron© 75 mg/3 ml and Muscoril© 4 mg/2 ml. It was learned that the patient, who was a patient transportation personnel in our hospital, had used these drugs for years due to low back pain and today, he had asked the nurse at his workplace to administer these drugs without consulting a doctor. At his physical exam, cold sweating and nausea were present, his blood pressure(BP) was 89/52mmHg and no other findings were present. Since the patient was nauseous and his BP was 89/52 mmHg, anaphylaxis was ruled in, 0.5 mg adrenaline IM and symptomatic treatment was started. Within minutes, the patient's blood oxygen saturation decreased and confusion developed. IM adrenaline was repeated. He remained hypoxic despite oxygen administration, become totally unresponsive and his respiratory effort started to decrease, need to be ventilated with a balloon-valve-mask. At the exact time, the ampoules of the drugs administered to the patient were delivered to us(Image.1), it was understood that the patient was administered rocuronium instead of thiocolchicoside by mistake. Thereupon, the antidote, Bridion© 200mg/2ml was administered at a dose of 160mg. Within minutes, he regained his full consciousness.

Image.1



the ampoule applied to the patient for his back pain

Conclusions: In order to avoid such situations, medical orders should be made in writing and should be applied with double check and risky medicines should be stored in places that require special access permission. Since anaphylaxis is a clinical diagnosis, inaccurate anamnesis may mislead the physician and delay the actual diagnosis of the patient.

Keywords: diclofenac sodium, thiocolchicoside, anaphylaxis, coma, back pain



Ref No: 5933

Pub No: P-002

Gonococcal arthritis: a rare manifestation of Neisseria Gonorrhoeae infection

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Background and aim: Gonococcal arthritis is a type of bacterial septic arthritis resulting from the dissemination of *Neisseria gonorrhoeae*, typically acquired through sexual contact. Although it is a well-documented condition, gonococcal arthritis is an infrequently seen manifestation gonorrhoeae infection. Herein, we present a patient presented to emergency department (ED) with gonococcal arthritis.

Case: A 47-year-old man with no known chronic diseases presented to ED with a complaint of pain in both knees for three days. The patient reported that he had been unable to walk due to pain for the past two days. He had been started on antibiotics for suspected gonorrhea by an urologist one week prior and was currently undergoing active treatment. Upon arrival, vital signs were blood pressure 127/89 mmHg, heart rate 103 bpm, SpO2 94%, and temperature 37.8°C. Physical examination showed swelling and increased temperature in both knees, more pronounced in the left knee. Other system examinations were normal. Laboratory tests revealed a WBC of $15.9 \times 10^9/L$ and C-reactive protein of 212 mg/L. Other tests were within normal limits. After orthopedic consultation, joint aspiration was performed on both knees. Aspirated fluid was serous, and culture results showed no bacterial growth. The patient was hospitalized for further evaluation and treatment. Empiric triple therapy was initiated with ceftriaxone 2x1 g intravenously, daptomycin 1x500 mg intravenously, and doxycycline 2x100 mg peroral. Despite the treatment, the patient showed no clinical improvement, so bilateral surgical synovectomy, debridement, and lavage were performed. Postoperatively, his condition improved, and he was subsequently discharged with recommendations for physical therapy and follow-up in orthopedic clinic.

Conclusions: *Neisseria gonorrhoeae* arthritis is a rare but significant cause of septic arthritis that emergency physicians should consider, particularly in patients with a history of sexually transmitted infections. Early recognition and accurate diagnosis of this condition are critical to initiating prompt and appropriate management.

Keywords: gonococcal arthritis, septic arthritis, *Neisseria Gonorrhoeae*



Ref No: 5944

Pub No: P-120

Bilateral Thalamic Infarction Following Inhalation Exposure to Chemical Substances

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Background and aim: Thalamic infarcts are typically unilateral; bilateral thalamic infarcts are rarely observed in patients with abnormal thalamic perfusion. The bilateral paramedian thalamic infarcts in our patient are a subtype resulting from occlusion of the Percheron artery, a rare variant arising from one of the posterior cerebral arteries. Clinical presentation may include altered consciousness, behavioral amnesic disorders, aphasia or dysarthria, ocular movement disorders, and motor deficits. A case of pseudobulbar palsy associated with bilateral paramedian thalamic infarcts, characterized by dysarthria, dysphagia, and facial and lingual weakness, has also been reported.

Case: A 27-year-old male patient presented to the emergency department with complaints of numbness and weakness in the left upper and lower extremities that began one day before. Six days before, the patient had visited an external facility for dizziness, limited eye movements, and diplopia, where he was diagnosed with a third cranial nerve palsy and started on Prednol and Ecopirin treatment. Upon presentation, the patient's general condition was stable with normal vital signs: blood pressure 130/76 mmHg, pulse 60 bpm, and oxygen saturation 96%. The patient had no known chronic diseases or risk factors. His occupation was a hairdresser, and he frequently performed keratin treatments on clients. The patient was admitted to the neurology department with a diagnosis of ischemic cerebrovascular disease. The patient was discharged with residual weakness in the left extremities.

Conclusions: Inhalation exposure to chemical fumes can lead to severe health conditions, particularly in occupational settings. Therefore, we believe that using protective equipment in workplaces, regardless of exposure levels, is crucial to preventing such conditions.

Keywords: Thalamic Infarction, Chemical Substances, Inhalation

Ref No: 6021
Pub No: P-052

Blast Effect

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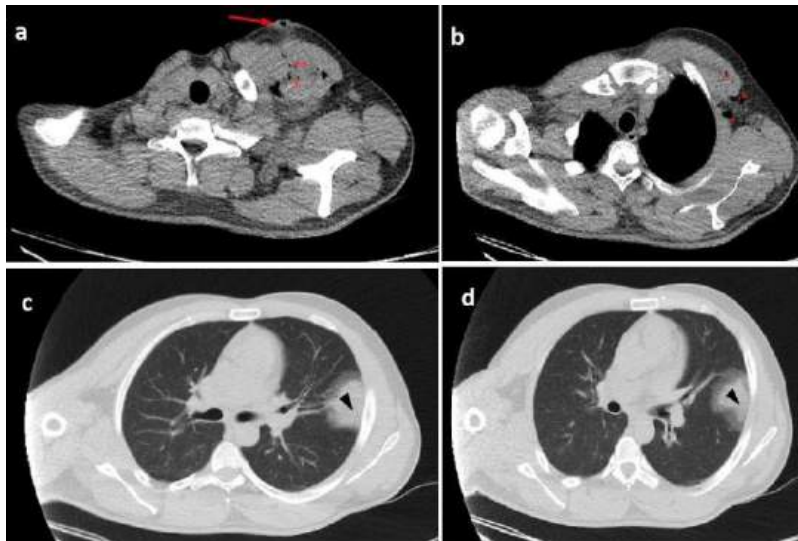
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Background and aim: Damages to internal organs because of explosion or blunt trauma are called blast injuries. As the shock wave formed after the explosion passes through the lung, it causes lung damage, intraparenchymal hemorrhage, alveolar rupture, and edema. In recent years, when personal armament has increased and access to different explosive materials has become easier, such injuries are common in emergency department.

Case: 30-age male patient. He admitted to the emergency service with the complaint of a ricochet bullet injury after shooting on the ground. He had no previous history of disease or drug use. The bullet entered through the left third intercostal space and exited the left midaxilla. There was no open pneumothorax. Breath sounds were heard deeply in the left lung. There was a skin and subcutaneous incision compatible with the bullet trace on the medial side of the left arm. There was no left arm vascular injury. blood pressure 130/85, heart rate 82 beats/min, body temperature 36 0C. Hemogram 13.5 g/dl. Contusion detected in the left lung in the chest computed tomography (figure 1). Hemothorax or pneumothorax did not develop in the patient's follow-up. He was discharged after clinical recovery.

Figure 1. Blast effect



Conclusions: An explosion close enough to the body creates a blast wave. There is difficulty in examination in blunt traumas. Wounds caused by the explosion effect may not be detected only with the first examination. even all dresses can be intact. In patients who admitted to the emergency services with gunshot wounds, even if the bullet remained in the skin or damaged only the skin and subcutaneous tissue, there may be a blast effect in internal organs such as the lungs. Even



if there is only a trace of bullet on the skin, emergency physicians should pay attention to the examination of internal organs such as lungs and ask for imaging.

Keywords: Blast Effect, Wound, Bullet



Ref No: 6047
Pub No: S-111

Peripartum cardiomyopathy

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Background and aim: Peripartum cardiomyopathy (PPCM) is a rare, life-threatening cardiomyopathy occurring late in pregnancy or early postpartum, characterized by left ventricular dysfunction and heart failure. According to the European Society of Cardiology's 2010 definition, PPCM is idiopathic, emerging in late pregnancy or shortly after delivery without an identifiable cause. Typically, the left ventricular ejection fraction falls below 45%, though dilation may not always be present. The cause of PPCM is not well understood, but risk factors include African descent, advanced maternal age, hypertensive disorders, multiparity, multiple pregnancies, obesity, chronic hypertension, and prolonged tocolytic use. The incidence varies by region. This case details a rare PPCM diagnosis in a mother who delivered a healthy baby and initially presented with hypertensive pulmonary edema.

Case: A 37-year-old woman at 37 weeks gestation presented with dyspnea, sweating, and leg swelling. She had type 2 diabetes mellitus. Her vital signs were: oxygen saturation 65%, blood pressure 130/70 mmHg, heart rate 120 bpm, and temperature 36.6°C. ECG showed sinus tachycardia. She was agitated and disoriented. Physical examination revealed bilateral crackles, a pansystolic murmur from the apex to the axilla, +2 pretibial edema, and bilateral jugular vein distention. Echocardiography showed an ejection fraction <35% and left ventricular dilation. Heart failure was suspected, and treatment included nasal oxygen, intravenous nitroglycerin (5 mcg/min), furosemide (40 mg bolus, 20 mg/hour infusion), Foley catheter, and enoxaparin (0.6 ml s.c.). Consultations with cardiology, obstetrics, and anesthesiology were conducted. The patient's oxygen saturation improved to 90%, and 2000 cc of diuresis was achieved. An emergency cesarean section was successfully performed. Both mother and baby were discharged nine days later with follow-up recommendations.

Conclusions: PPCM is a diagnosis of exclusion requiring the evaluation of other heart failure causes. Complicated pregnancies necessitate specific management protocols, and PPCM should be considered in women with heart failure symptoms late in pregnancy or postpartum.

Keywords: Pregnancy, Cardiomyopathy



Ref No: 6069
Pub No: P-030

Metoclopramide; etiology not to be neglected in oculogyric crisis

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Background and aim: Oculogyric crisis is a temporary deviation of the eye, especially upward, as a result of contraction of the eye muscles. In some cases, it may be accompanied by hyperextension of the neck. Such cases should be treated with caution as they may be confused with encephalitis, complex partial seizure, tetanus and hypocalcemic tetany. In this case report, we present oculogyric crisis after iv metoclopramide intake.

Case: A 30-year-old female patient was admitted to the emergency department with complaints of nausea and vomiting. The patient had only gastritis in her medical history. Physical examination was normal, abdomen was comfortable and vitals were stable. 100 cc 0.9% isotonic was added 40 mg Pantoprazole 50 mg Dexketoprofen 10 mg Metochlorpramide HCL and sent IV. The patient was discharged after her symptoms were relieved. Approximately 1 hour later, she was admitted to the emergency department again with complaints of agitation and involuntary upward deviation of the eyes. An intravenous line was opened. He was monitored. 5 mg Biperiden lactate (Akineton) was administered and the patient was taken under observation. 3 hours after the treatment, the involuntary contractions in the eye ended and the patient was discharged with recommendations.

Conclusions: Metoclopramide is a prokinetic agent that increases gastrointestinal motility and accelerates gastric emptying. Another effect is to relieve nausea and vomiting complaints as a dopamine receptor antagonist. In addition, it can cause side effects such as movement disorders of the extrapyramidal system by crossing the blood brain barrier. It shows these effects by blocking the dopamine receptor (D2-R) and stimulating acetylcholine receptors in the stomach muscle. Drug-related side effects are not dose dependent and occur idiosyncratically. Metochlorpramide, which is one of the antiemetics frequently prescribed in emergency departments, can cause side effects at any age and at any dose. Therefore, the history of drug use should be questioned.

Keywords: emergency department, metoclopramide, oculogyric crisis

Ref No: 6075
Pub No: P-128

DIAPHRAGMATIC RUPTURE AFTER HIGH ENERGY TRAUMA

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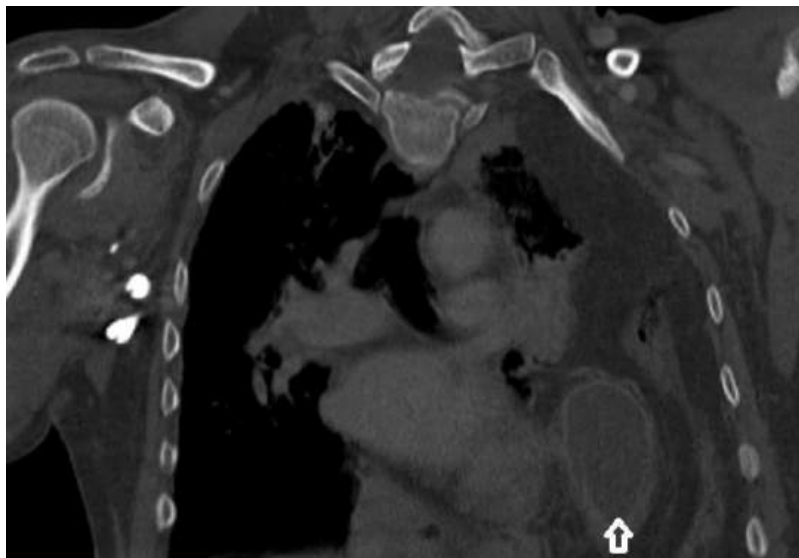
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Background and aim: The most common cause of diaphragmatic injuries is penetrating trauma due to gunshot wounds to the lower chest or upper abdomen. Rupture due to blunt trauma is less common and occurs in <5% of patients hospitalized for thoracic trauma. The incidence of diaphragmatic hernia increases in pelvic fractures. The diaphragm separates the thoracic and abdominal compartments and is closely related to the surrounding organs, so isolated diaphragmatic injuries are rare. Diaphragmatic injuries may often be associated with liver and spleen injuries. In our case report, we tried to explain the patient who was brought after a traffic accident.

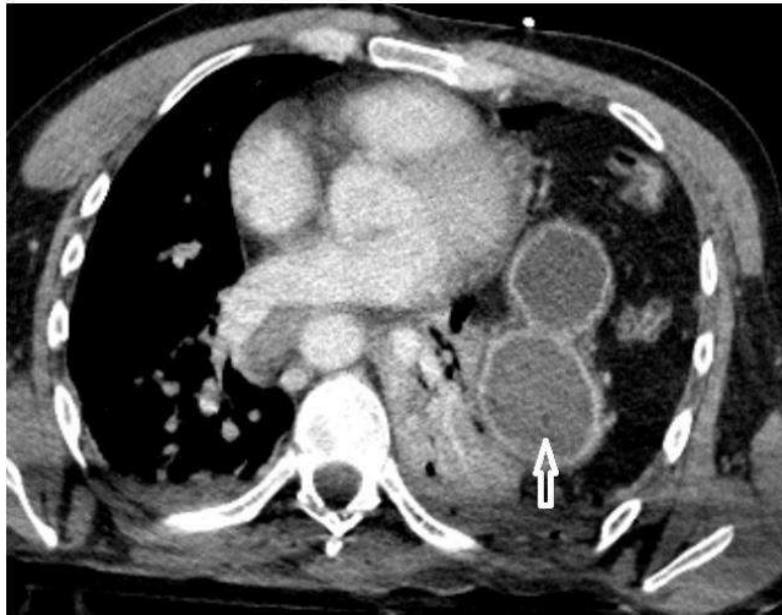
Case: 46 years old male patient, non-vehicle traffic accident, unconscious, spontaneous breathing, palpable pulse on initial examination. The patient has no known disease in his/her medical history and is not taking any medication regularly. On examination, general condition is poor, GCS 3, intubated, Vital Signs: Blood Pressure Arter: 121/72 mmHg, pulse 87/minute, temperature 36.8 °C, spO2 99%. The patient was taken into emergency operation by the Thoracic Surgery and General Surgery clinics due to diaphragmatic rupture and accompanying consecutive displaced rib fractures after a tomography scan due to high-energy trauma revealed areas on the left lung that may be compatible with the stomach (Figure 1 and 2) and intestinal anus (Figure 3). After 1 month of intubated intensive care follow-up, the patient was discharged after clinical recovery.

Figure 1



Computed tomography image with contrast in the coronal section indicated by the white arrow

Figure 2



Computed tomography image with contrast in the horizontal section indicated by the white arrow

Conclusions: Diaphragmatic injuries usually occur with penetrating or blunt injuries. Rarely, iatrogenic injuries can occur due to spontaneous rupture during pregnancy or unexplained spontaneous rupture. Laparoscopy or laparotomy is necessary to repair the diaphragm. Thoracotomy may be necessary for associated chest injury, resuscitation, delayed repair of the diaphragm or treatment of thoracic complications.

Keywords: Diaphragm, trauma, rupture



Ref No: 6097

Pub No: P-142

Median Arcuat Ligament Syndrome

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Background and aim: Median Arcuate Ligament Syndrome (MALS), also referred to as celiac axis syndrome, celiac artery compression syndrome, Harjola-Marable syndrome, or Dunbar syndrome in the literature, is a rare condition caused by the compression of the celiac artery by the median arcuate ligament. This condition results in narrowing, especially during expiration, leading to mesenteric ischemia and insufficient blood flow to the gastrointestinal system, causing postprandial abdominal pain. Diagnosis requires the exclusion of other conditions and confirmation via angiographic imaging. Treatment typically includes lifestyle changes and surgical decompression of the ligament.

Case: A 50-year-old female patient presented with a one-week history of worsening epigastric pain, particularly after eating. The patient had no significant medical comorbidities, although her history included multiple lumbar disk hernia surgeries. Physical examination revealed epigastric tenderness without signs of acute abdomen. Laboratory results, including white blood cell count, hemoglobin, and creatinine, were normal. A contrast-enhanced abdominal CT scan showed a 15 mm cyst in the left kidney, small gallstones, and no bile duct dilation. A suspicious partial thrombus in the proximal celiac artery was noted. Further imaging with an angiogram confirmed proximal celiac artery stenosis, suggestive of MALS. The patient was referred to general surgery, where elective surgery was advised. Conservative management and lifestyle modifications were recommended in the meantime.

Conclusions: MALS is one of the less common causes of postprandial abdominal pain, particularly in younger patients with normal ECG findings. It should be considered as an alternative diagnosis after ruling out acute abdominal conditions and mesenteric ischemia, especially in patients aged 30-50. Proper diagnostic imaging, such as CT angiography, is essential for confirming the diagnosis and planning appropriate management.

Keywords: Median Arcuat Ligament Syndrome, MALS, Median Arkuat Ligaman Sendromu, Celiac Artery Compression Syndrome, Harjola-Marable Syndrome



Ref No: 6101

Pub No: S-010

Hidden threat: Intracranial Dermoid Cyst Rupture in an Emergency Setting Mimicking Respiratory Infection

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Background and aim: Dermoid cysts are congenital anomalies that arise between the third and fifth weeks of embryogenesis. Extra-gonadal mature cystic teratomas are uncommon. They typically grow slowly and constitute 0.4-0.6% of all intracranial tumors. Intracranial dermoid cysts can be incidentally detected during central nervous system imaging performed for nonspecific complaints. Emergency situations resulting from the rupture of these cysts are rarely reported in the literature, making them difficult to diagnose.

Case: A 34-year-old female patient with no history of chronic illness or acute trauma presented to the Emergency Department (ED) with complaints of persistent sore throat and fever despite the use of oral antibiotics and oral antipyretic medications. Initial examination showed slightly elevated temperature, with hypertrophic and cryptic tonsils. Despite intravenous antipyretic treatment, her fever persisted, and she developed a headache. Laboratory tests revealed significant leukocytosis, elevated CRP, and high procalcitonin levels. During follow-up in ED, the patient developed confusion and vomiting. Subsequent physical examinations revealed signs of meningeal irritation, prompting the decision to perform a computed tomography (CT) scan of the central nervous system. A CT scan of the brain revealed a non-calcified lesion with fat density in the right sphenoid region, suggestive of a ruptured dermoid cyst. Neurosurgery consultation confirmed the diagnosis, and surgical intervention was performed. The excised tissue contained sebaceous glands, squamous epithelium, and thyroid follicles. Postoperatively, the patient was discharged in good health and scheduled for follow-up outpatient visits.

Conclusions: This case demonstrates that the rare but potentially highly morbid and fatal rupture of an intracranial dermoid cyst can be detected in a patient presenting to the ED with symptoms of an upper respiratory tract infection. The early identification of a ruptured intracranial dermoid cyst, despite its rarity, can significantly improve patient outcomes. Detailed clinical histories and careful neurological examinations are crucial in identifying unexpected diagnoses in emergency settings.

Keywords: Intracranial Dermoid Cyst, Cyst Rupture, Mature teratoma



Ref No: 6158

Pub No: P-158

Seizure-Induced Multitrauma and Pulmonary Embolism: A Rare Complication of Generalized Tonic-Clonic Seizures in an Elderly Patient with Comorbidities

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Background and aim: Generalized tonic-clonic (GTC) seizures cause severe muscle contractions that can lead to serious complications, particularly in elderly patients with comorbidities such as coronary artery disease and prior neurological interventions. Traumatic fractures due to intense contractions are rare but dangerous. Additionally, hypoxia from prolonged or recurrent seizures can result in ischemic complications, including pulmonary embolism. This case represents a rare instance of GTC seizure causing bilateral femoral neck fractures and a pulmonary embolism in an elderly patient with coronary artery disease and a history of craniotomy. The report highlights the need for early recognition and multidisciplinary management in emergency settings.

Case: A 58-year-old male with a 15-year history of epilepsy was brought to the emergency department following a seizure episode. He was found unconscious by paramedics, displaying muscle jerking and hypersalivation. Upon arrival, he experienced two additional seizures, which were controlled with intravenous diazepam (5 mg + 5 mg) and 1500 mg of Keppra. His medical history included coronary artery disease, a prior craniotomy, and regular use of antiepileptics. The patient was disoriented with a Glasgow Coma Score of 8 and showed tachypnea and desaturation (SpO₂ 73%), which improved to 93% with oxygen therapy. Lab results indicated severe metabolic acidosis and elevated lactate levels. Cranial CT revealed no acute hemorrhage but an old craniotomy defect. Two hours later, he regained consciousness. A pelvic CT confirmed bilateral displaced femoral neck fractures. Orthopedic consultation was arranged. The elevated troponin levels, without ischemic ECG changes, were attributed to seizure-induced muscle contractions, hypoxia, and metabolic acidosis rather than myocardial ischemia.

bilateral femoral neck fractures



Conclusions: GTC seizures can cause severe trauma and ischemic complications in elderly patients with comorbidities. In this case, muscle contractions led to bilateral femoral neck fractures, and prolonged hypoxia contributed to pulmonary embolism. Multidisciplinary care is essential for early recognition and improved outcomes.

Keywords: Generalized tonic-clonic seizure Femoral neck fractures Hypoxia Troponin elevation Metabolic acidosis



Ref No: 6307

Pub No: S-113

A RARE COMPLICATION OF ICD: TWIDDLER SYNDROME

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Background and aim: Implantable cardioverter defibrillator (ICD) devices are used in the treatment of fatal arrhythmias and advanced heart failure. The ICD is placed in a small 3-5 cm pocket under the right or left clavicle and electrodes are placed in specific areas of the heart. Twiddler syndrome is a rare but potentially dangerous complication of devices used to treat dysrhythmia. This syndrome develops as a result of pulling and dislodging of the device when the patient manipulates it.

Case: A 76-year-old woman with known , epilepsy and Alzheimer's disease was admitted to the emergency department with discomfort from her pacemaker being out of place. A pacemaker was implanted 4 years ago. Inspection revealed that the pacemaker was protruding from the skin under the left clavicle. Since the patient had dementia, information about whether there was trauma could not be obtained reliably. There was no discharge, redness or bleeding at the ICD site. ECG showed normal sinus rhythm with nonspecific ST changes. On physical examination, respiration was normal, both lungs participated equally in breathing, there was no rales or rhonchi. External examination revealed no pathologic findings. Thoracic computed tomography without contrast showed an ICD in the anterior wall of the thorax. The patient was dressed. During a total of 10 days of hospitalization, the ICD was removed and the patient was externized with a temporary battery.

Conclusions: Twiddler's syndrome is a condition in which the ICD is manipulated and the electrodes are dislodged from their innervated areas and innervate different unwanted areas (anterior chest wall, nervus frenicus, nervus vagus, pectoral muscle, abdominal fasciculation).ICD manipulation in patients with ICD is a rare complication and is one of the differential diagnoses that should be kept in mind, especially in elderly patients and patients with dementia.

Keywords: twiddler syndrome, implantable cardioverter defibrillator



Ref No: 6324

Pub No: S-021

Uncommon Presentation of Abdominal Hematoma Following Persistent Cough: A Case Study

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Background and aim: Abdominal pain is a frequent issue in the emergency department (ED). Elderly patients are among difficult to assess. The elderly patients require additional focus due to the wide range of possible diagnoses and the risk of serious complications¹. Effective assessment requires a broad differential diagnosis, including conditions beyond gastrointestinal issues². We will present a rare case; an internal oblique muscle (IOM) hematoma in an elderly patient who has admitted to ED.

Case: A 74-year-old patient presented to the ED with symptoms of an upper respiratory infection and sudden left flank pain following coughing. The patient has a medical history of chronic myeloproliferative disorder (CMPD) and coronary artery disease. His current medications include pitavastatin, aspirin, metformin and nebivolol. The patients' vital signs were within normal limits. Physical examination revealed normal breath sounds, ecchymosis in the left flank and tenderness in the left flank region upon palpation. There were no signs of bleeding except the ecchymosis in left flank area (Figure 1). The hemogram results indicated a hemoglobin level of 9.3 g/dL, a white blood cell count of $17.1 \times 10^9/L$, and a platelet count of $31 \times 10^9/L$. Follow-up hemogram results showed a hemoglobin level of 8.6 g/dL. Contrasted abdominal computed tomography (CT) was performed and showed 3x6 cm hematoma in the left IOM (Figure 2). The patient was admitted to the ward after consultation with general surgery.

Figure 1



Ecchymosis in the left flank area

Figure 2



Contrasted abdominal CT scan, 3x6 cm left IOM hematoma.(Red Arrows)



Conclusions: Intense coughing can cause abdominal wall hematomas, especially in elderly patients on anticoagulant therapy. Such hematomas often develop in the rectus sheath but can occur in the IOM^{3,4,5}. Symptoms like abdominal pain and decreased hemoglobin may be mistaken for tumors or inflammation^{3,6}. Initial diagnosis involves ultrasound, followed by contrast-enhanced CT for active bleeding detection^{5,7}. Management is usually conservative with bed rest and pain relief; invasive interventions are considered only if the hematoma increases or ruptures^{6,8}.

Keywords: abdominal pain, computed tomography, cough, oblique muscle, hematoma



Ref No: 6342
Pub No: P-050

A rare cause of compartment syndrome; extravasation of tramadol planned for intravenous administration under the skin

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Background and aim: Tramadol, a synthetic analog of codeine, can be used intravenously for acute and chronic pain. Extravasation is the leakage of intravenously administered substance from the vein (1). Extravasation can be seen in children with low muscle mass, the elderly, and patients with suppressed immune systems (2). Compartment syndrome is a rare but serious complication that may develop due to extravasation. Fasciotomy performed in the first 6 hours of treatment is of great importance. Complications such as pain, nerve damage, rhabdomyolysis, kidney failure and death may occur (3).

Case: Our case was a 67-year-old man with metastatic lung cancer. He applied because his chronic pain was getting worse. Tramadol was infused intravenously in 100 cc physiological saline from the left antecubital region. After the treatment, the patient was discharged. He applied again on the same day with swelling in his left arm. He was confused and agitated. The swelling and ecchymosis areas on the arm were spreading to the back and the left front of the chest. Radial pulse could not be taken. pH: 6.97, hco3act: 7.8, lactate: 5.08 were detected in the blood gas. Subsequently, areas of necrosis and bullous structures developed. Fasciotomy was performed on the patient, whose artery calibrations were normal on left arm Doppler USG and CT angiography, and no pathology was observed in the lumen or vessel walls. The patient, who was taken to intensive care, developed multiple organ failure and could not be saved.

Conclusions: Extravasation of tramadol, which has not been reported before in the literature, may lead to life-threatening complications such as compartment syndrome. Caution should be exercised in intravenous treatment in cachectic, elderly, and malignant patients. We think that the existing terminal stage malignancy was also effective in the poor clinical course of our patient.

Keywords: tramadol, extravasation, compartment syndrome



Ref No: 6348
Pub No: S-130

How Much Salt We Are Consuming? A Severe Mephedrone Intoxication in a Young Male Managed Cautiously in the Emergency Department

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Background and aim: Bath salts, also known as psychoactive bath salts, are the new stimulants of our time, which are increasingly used for recreational purposes. More than 130 new synthetic bath salts have been produced in the last 15 years and are so called because they are similar in appearance to industrially used bath salts. This case is reported in order to raise awareness about these drugs in the emergency department since their effects and treatment are not fully understood and each substance should be analysed separately because of its unique pharmacodynamics.

Case: A 20-year-old young male patient was brought by ambulance at 07:45 in the morning. According to the information received, the patient had chest pain and confusion after getting out of the shower at 04:00 at night. He has no known disease or allergy. On arrival, Glasgow Coma Score was 8, unconscious, blood pressure 160/75, pulse 150, no fever. After a convulsion occurred, the patient was intubated and followed up. The patient with lactic acidosis in the blood gas (Ph 7.19, Lactate: 14, Hco3: 13) was hydrated and oliguria was present. Bedside ultrasonography showed low EF with eyeballing and hypokinetic left ventricle. Due to his renal failure, CVVHD was recommended under intensive care conditions. After completing intensive care dialysis, it was learnt that the relatives took an unknown amount of mephedrone. After 12 days of follow-up, ward follow-up was deemed appropriate and the patient was discharged.

Conclusions: In 'Bath Salts' ingestion which may result in renal failure and haemodialysis as well as sympathomimetic effect and altered mental state after acute ingestion and there are similar cases, the patient should be thoroughly examined, witnesses should be listened to carefully and renal factors should be taken into consideration for the purpose of patient mortality and morbidity in addition to cardiac and neurological factors.

Keywords: Bath Salts, Mephedrone, Renal Failure, Synthetic Cathinones



Ref No: 6447
Pub No: S-005

A complication of paracentesis: Intramuscular Hematoma Due to Inferior Epigastric Artery Injury

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Background and aim: Abdominal paracentesis is a simple procedure that can be performed in the emergency department, involving the insertion of a needle into the peritoneal cavity to drain ascitic fluid[1]. Therapeutic paracentesis involves the removal of 5 liters or more of peritoneal fluid to alleviate symptoms such as dyspnea and abdominal pain caused by ascites[2]. An elevated INR or thrombocytopenia does not contraindicate paracentesis, and most patients do not require fresh frozen plasma or platelet transfusion before the procedure[3]. The aim of this case report is to highlight a significant complication of paracentesis, which is frequently performed in emergency departments, and to emphasize the importance of performing the procedure under ultrasound guidance.

Case: A 39-year-old male patient presented to the emergency department with complaints of abdominal distension, early satiety, and shortness of breath. The patient had a known history of hepatitis B infection, cirrhosis, and hepatocellular carcinoma. On physical examination, the patient appeared cachectic, with significant abdominal distension with widespread tenderness without guarding or rebound tenderness. Findings from other system examinations and the patient's vital signs were normal. Laboratory tests revealed a hemogram with WBC: $4.5 \times 10^3/\mu\text{L}$, hemoglobin: 6.2g/dL, and platelets: $42 \times 10^3/\mu\text{L}$. Biochemical parameters showed Na: 129mmol/L, Ca: 8.29mg/dL, BUN: 46mg/dL, total bilirubin: 2.6mg/dL, CRP: 130mg/L, and amylase: 112U/L. Other parameters were within normal limits. Coagulation tests revealed an INR of 1.51, PT% of 52%, and aPTT of 32.6 seconds. HBsAg was $>1000\text{IU/mL}$, indicating a positive result. For the paracentesis, an ultrasound-guided entry was made in the lower abdomen. After draining 1000 cc of fluid, the ascitic flow ceased upon the patient's change of position. Another attempt was made 1 cm medial to the initial site without using ultrasound guidance, and ascitic flow was observed. A few minutes later, a hematoma developed at the entry site, leading to the procedure being stopped. The patient was then admitted to the general surgery ward for hematoma monitoring.

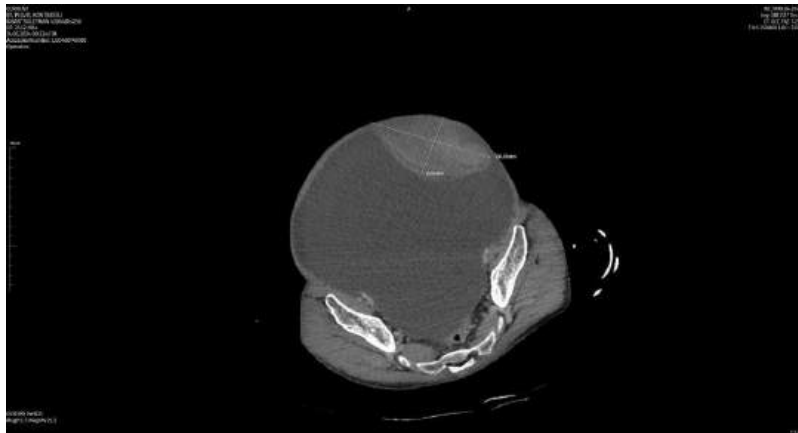
Contrast-enhanced abdominal CT scan, axial view





The left and caudate lobes of the liver are hypertrophic, with irregular contours (parenchymal disease?). There are mass lesions in the liver, the largest of which is subcapsularly located in the right lobe, with hypodense areas measuring up to 52 mm in diameter in the axial plane (multicentric HCC?).

Contrast-enhanced abdominal CT scan, axial view 2



There is an intramuscular hematoma measuring 111x55 mm at its widest point within the left rectus abdominis muscle of the anterior abdominal wall.

Contrast-enhanced abdominal CT scan, sagittal view



Extensive ascites and intramuscular hematoma are observed in the abdominal cavity.

Conclusions: Although thrombocytopenia and elevated INR are not contraindications for therapeutic paracentesis, it should be kept in mind that this procedure can cause bleeding. Therefore, the risk should be minimized by using the correct technique under ultrasound guidance.

Keywords: Paracentesis, Ultrasonography, Bleeding, Hematoma, Complication

Ref No: 6491
Pub No: S-051

Difficult and Unexpected Diagnosis: Emphysematous Cystitis

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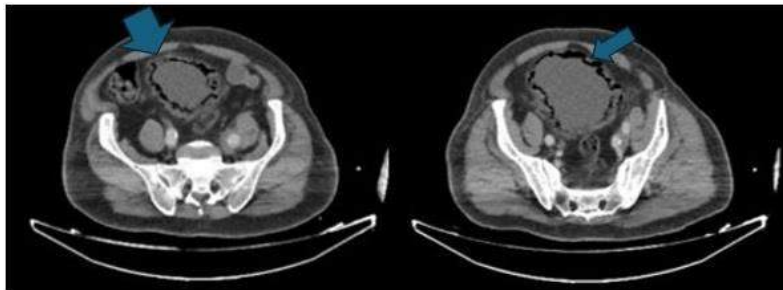
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Background and aim: Emphysematous cystitis, also known as cystitis emphysematosa, is a condition in which gas accumulates in the bladder wall and lumen as a result of infection caused by gas-producing microorganisms. Although many patients with emphysematous cystitis are treated conservatively, surgical treatment may be required in cases with hemodynamic instability. Here, we present a case of emphysematous cystitis treated conservatively.

Case: A 75-year-old man presented to the emergency department with complaints of fever, chills, shivering, macroscopic hematuria, and dysuria for 3 days. His medical history included hypertension, hyperlipidemia, diabetes mellitus, pulmonary embolism, and coronary artery disease. He had been taking alpha-blockers and anticholinergics for urinary incontinence for the past 10 years. At presentation, the patient's blood pressure was 84/61 mmHg, pulse was 73 beats/min, oxygen saturation was 93%, temperature was 37.2 °C, and respiratory rate was 24/min. Physical examination revealed no guarding, rebound, or costovertebral angle tenderness, but suprapubic tenderness. Laboratory parameters were as follows: glucose 106 mg/dL, HbA1C 11.5%, total leukocyte count 24210/mm³ (neutrophils 93.9%), hemoglobin 11.2 g/dL, platelet count 98 cells/mcL, blood urea 52 mg/dL, serum creatinine 1.13 mg/dL, C-reactive protein (CRP) 70.7 mg/L, potassium level 3.37 mmol/L. Blood gas pH 7.43, bicarbonate 22 mmol/L, lactate 4.46 mmol/L. Emergency 18-French Foley catheterization was performed. 1500 cc of hematuria was observed. Then, the bladder was mechanically irrigated with 1000 cc of saline. Bladder wall thickening and diffuse air were observed on CT imaging (Figure 1). The patient received intravenous fluid therapy, intravenous antibiotic therapy, and inotropic support therapy with a central venous catheter.

Figure 1



Bladder wall thickening and gas along the bladder wall and in the bladder lumen are indicated by the arrow.

Conclusions: As an emergency physician, emphysematous cystitis should be considered a life-threatening condition in a patient presenting with hematuria and dysuria. Rapid imaging to confirm the diagnosis and administering appropriate antibiotics for treatment reduces the need for surgery and prevents fatal outcomes.



Keywords: emergency department, emphysematous cystitis, abdominal pain, hematuria

Ref No: 6493

Pub No: S-066

A life threatening emergency: Acute aortic injury

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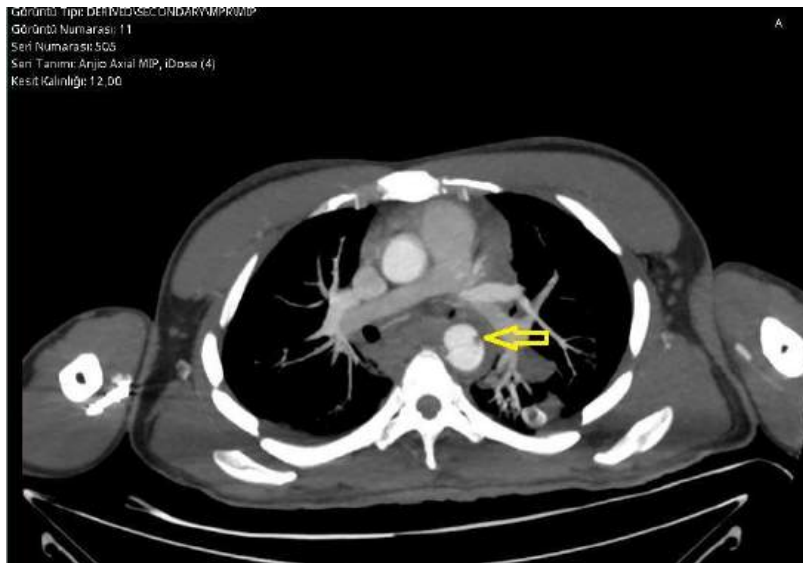
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Background and aim: Traumatic aortic injury is the second most common cause of death following blunt trauma. Autopsy studies have shown that aortic injury is responsible for 17% of deaths in motor vehicle accidents. It is difficult to diagnose in surviving patients, either because of associated injuries or because of vague physical examination findings.

Case: A 31-year-old man was brought to the emergency department after being involved in a motor vehicle accident. On admission he was conscious and he was hemodynamically stable. Initial assessment revealed multiple fractures to extremities, two rib fractures and left lung haemotorax. The wall of the thoracic and abdominal aorta was found to have a slightly hyperdense appearance within the study area. In the CTA performed for optimal evaluation, a flap-like appearance was observed in the thoracic aorta that was compatible with a dissection. The patient remained hemodynamically stable and conscious. Blood gas results were satisfactory and there was no decrease in hemoglobin levels. He was transferred to the cardiovascular unit and thoracic endovascular aortic repair (TEVAR) was performed successfully on the same day. On the 4th day of the trauma, he was transferred to the orthopaedic department for fracture surgery of the extremities.

Figure 1



Leak in descending thoracic aorta



Conclusions: Trauma is the major cause of death under the age of 35 years worldwide. Traumatic aortic injury is one of the leading causes of mortality in motor vehicle accidents. While 85% of patients with aortic rupture die immediately, only 15% can reach the hospital. Rupture occurs in the aortic isthmus in 90-95% of cases. Rupture of the abdominal aorta and distal thoracic aorta may occur less frequently. Computed Tomography Angiography is the gold standard for diagnosis. Before the development of endoluminal interventions, aortic surgery was the treatment of choice for this group of patients. Early diagnosis and early surgical intervention improves outcomes.

Keywords: Traumatic aortic injury, Motor vehicle accident, Aortic dissection, endovascular aortic repair



Ref No: 6502

Pub No: S-099

disseminated intravascular coagulation

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Background and aim: Disseminated intravascular coagulation is characterised by systemic activation of blood coagulation, resulting in formation of intravascular thrombi and impaired organ perfusion. Disseminated intravascular coagulation is seen in septicemic infections, trauma, malignancies, obstetrical complications, vascular diseases, toxic and immunological reactions. Lung cancer represents the most common cause of cancer death worldwide. While the prognosis remains poor, immunotherapy is giving a positive impact on survival. Cancer vaccines represent a form of active immunotherapy that historically has given modest results in terms of efficacy. CIMAvax-EGF, a therapeutic vaccine for non-small cell lung cancer (NSCLC) developed in Cuba.

Case: A 43-year-old female patient presented to the emergency department with complaints of bruising, pain, and shortness of breath in her fingers and toes. Her medical history included lung cancer (large cell neuroendocrine carcinoma), hypertension. Arterial blood pressure was measured as 143/117 mm Hg, heart rate 60 / min, body temperature 36.5, saturation 87. Electrocardiography taken on the patient showed normal sinus rhythm. The patient had received Cimavax vaccine in Cuba approximately 2 weeks ago. In the physical examination, there was a cyanotic appearance in the fingers and toes. In the tests taken, creatinine was 1.21 mg/dl, urea was 66.1 mg/dl, crp was 25 mg/l, platelet was $99 \times 10^3 / \mu\text{l}$, Troponin 341 ng / l, fibrinogen 1.02 g / l, pt-sn 15 sec, d-dimer 10730. The patient's ultrasonography revealed jugular vein and popliteal vein thrombus was detected. Echocardiography, fibrillar structure of 9 mm length is observed in the aortic valve, it was evaluated in favor of thrombus in the foreground. The patient was evaluated by the relevant departments. It was recommended to start heparin infusion to the patient. The patient was admitted to intensive care with a disseminated intravascular coagulation.

case



case



case



Conclusions: Early recognition of acute and life-threatening disseminated intravascular coagulation can be lifesaving with appropriate supportive measures.

Keywords: thrombus, coagulation



Ref No: 6528

Pub No: S-075

Psychogenic Polydipsia: The Double-Digit Sodium Phenomenon

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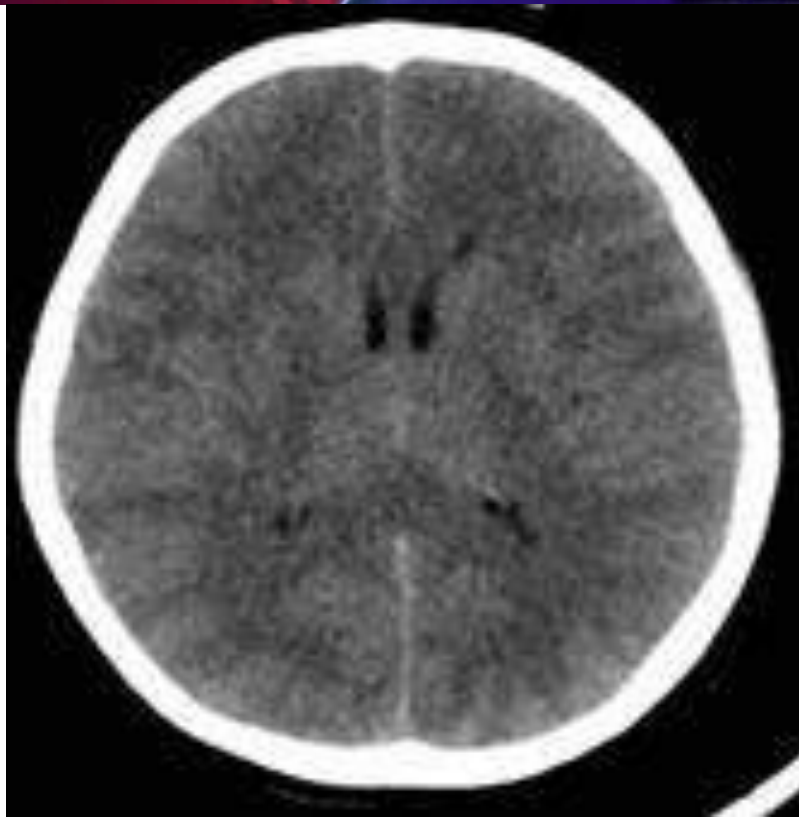
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Background and aim: This text addresses a case of psychogenic polydipsia (PPD) and explains how this condition can lead to life-threatening electrolyte imbalances, particularly low sodium levels (hyponatremia). Psychogenic polydipsia is often associated with schizophrenia, obsessive-compulsive disorder (OCD), and other psychiatric illnesses. Hyponatremia can result in serious symptoms such as lethargy, psychosis, seizures, or even death.

Case: In this case, a 54-year-old male with a history of epilepsy and schizophrenia was brought to the emergency room due to a seizure. The patient's seizure activity did not initially respond to diazepam treatment. Blood tests revealed critically low sodium levels (99 mEq/L), raising suspicion of psychogenic polydipsia caused by water intoxication. Hypertonic fluid therapy was administered to normalize the patient's sodium levels, and close monitoring was conducted.

Figure 1



Brain Computed Tomography image of the patient

Conclusions: In conclusion, psychogenic polydipsia is a disorder commonly seen in chronic schizophrenia, and treatment options are limited. Fluid restriction and hypertonic saline therapy play a critical role in managing these patients. In cases where epilepsy patients present with seizures, electrolyte imbalances should not be overlooked. Seizure activity due to such imbalances may not respond to standard antiepileptic treatments, so underlying causes should be thoroughly investigated.

Keywords: Psychogenic Polydipsia, sodium, hyponatremia, epilepsy

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Pub No: S-092

Bilateral giant adrenal endothelial cyst hemorrhage

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Background and aim: Adrenal cysts are clinically rare conditions. Although they are usually asymptomatic, they can present with chronic symptoms such as abdominal pain, gastrointestinal pressure complaints, and endocrinological disorders, and more rarely with life-threatening clinical conditions like intra-abdominal hemorrhage and rupture.

Case: in our case initially presented with abdominal, back, and chest pain symptoms and was reported as a mesenteric cyst without hemorrhagic findings in the first abdominal computed tomography (CT). However, with hemodynamic deterioration during follow-up, intra-abdominal hemorrhage was detected in control imaging, and emergency surgery was performed.

CT Scan



CT Scan 2



Conclusions: In patients presenting to the emergency department with abdominal pain secondary to such a large intra-abdominal cyst, follow-up should be prolonged, and vital signs, along with periodic hemogram checks, should be monitored. It should also be remembered that such giant cysts can create diagnostic

Keywords: giant abdominal cysts, endotelial cyst hemorrhage, endotelial cyst, intra-abdominal hemorrhage, adrenal cyst



Ref No: 6613

Pub No: S-127

Severe Plasmodium falciparum and HIV coinfection in an 18-year-old Sub-Saharan African migrant.

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Background and aim: Malaria and HIV are among the two most important global health problems of developing countries. In Sub-Saharan Africa, these diseases geographically overlap. With the immigration surge to the Turkey in the last 2 decades, Istanbul hosts over 490 thousand people with different ethnic backgrounds, Africans are not an exception [1].

Case: An 18-year-old male from Gabonese Republic presented with abdominal pain, malaise, nausea, and jaundice for 5 days. History was significant for travel to his home country 2 weeks ago and high-risk sexual activity 2 days ago. On examination, his right upper quadrant was tender with palpation. His vital parameters were stable at admission. Laboratory data revealed metabolic acidosis (ph=7.21, HCO₃=15.5 mEq/L, pCO₂=38.6), leukocytosis (15.25×10⁹/L), thrombocytopenia (6×10⁹/L), highly elevated C-reactive protein (218 mg/L), procalcitonin (>100 ng/mL), urea (264.1 mg/dL), creatinine (8.5 mg/dL), total bilirubin (30 mg/dL), direct bilirubin (26.31 mg/dL), AST (621 U/L), ALT (258 U/L), CK (6186 U/L) and ferritin (13322 ng/mL). HIV test was positive. Initial treatment focused on supportive therapy under the light of sepsis guideline. After the thin blood film revealed the presence of *P. falciparum*, artesunate 2.4 mg/kg IV at 0, 12, and 24 hours ordered. In addition, artemether and lumefantrine 2x1 PO was planned after the first 24 hours. Patient was admitted to the ICU for further investigation and therapy. In the following day, femoral catheter was applied, and continuous renal replacement therapy (CRRT) was started. During the 45 days of ICU care, patient complicated with septic shock, respiratory failure, multiple organ dysfunction syndrome (MODS) and alveolar hemorrhage. After successful medical and physical therapy, patient discharged with rutin follow-ups.

Conclusions: HIV increases the risk and severity of malaria. Given ongoing travel to regions with high malaria and HIV prevalence, we recommend screening febrile patients returning from these areas for both infections.

Keywords: malaria, HIV, Plasmodium falciparum, co-infection



Ref No: 6626

Pub No: P-038

Unnoticed Danger: Toxic Inhalation Agents

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Background and aim: When gases such as argon, hydrogen, nitrogen are used and their levels rise above a certain density in closed environments, they reduce the volume of oxygen in the air. This reduces the partial pressure of oxygen in the alveoli, resulting in insufficient oxygen supply to the tissues. Clinical effects begin in the central nervous system: motor incoordination, emotional dysregulation, vomiting, lethargy, coma. Dyspnea, hyperventilation, bronchoconstriction may occur. Depending on the severity of exposure, cardiac ischemia, conduction disorders, convulsions, multiple organ dysfunction may occur.

Case: A 38-year-old male patient was referred to us with a prediagnosis of poisoning after inhalation of toxic gas of unknown content. In the patient's history, it was learned that he worked in a shipyard, he saw that his friends were unresponsive to stimuli in a room and he was in this closed environment for about 15-20 minutes. Headache, nausea, burning in the throat and dyspnea started afterwards. Blood pressure:128/63mmHg, pulse:87/min, temperature:36.3°C, respiratory rate:22/min, oxygen saturation:96 with 7lt/min reservoir mask, room air saturation:80 were measured on admission. Bilateral diffuse rales were heard on lung auscultation. No additional physical examination findings were detected. Laboratory tests, ECG were normal. Lung tomography was performed in the patient with type 1 respiratory failure. There was lung congestion, it was interpreted in favor of acute respiratory distress syndrome. The patient was consulted to pulmonology unit. He was admitted to the Intensive care unit (ICU) for 72 hours for close monitoring and follow-up.

Conclusions: The other two patients with longer duration of toxin exposure were intubated due to severe respiratory failure, cardiac ischemia and were taken to ICU follow-up. In case of toxic inhalation, the duration of exposure to toxin affects the clinical outcome of the patient. Therefore, the patient's exposure should be terminated and treatment should be initiated as quickly as possible for minimal damage.

Keywords: Argon Gas, Acute Toxic Inhalation



Ref No: 6654

Pub No: S-036

Myocardial infarction and complete AV block in a trauma patient Simge Topçu, Serkan BİLGİN

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Background and aim: Traffic accidents are among the leading causes of death and disability. In these patients, traumatic fatal pathologies can be observed, as well as ischemic conditions unrelated to trauma, particularly those associated with stress. In this report, we discuss a case where a patient presented to the emergency department after a motor vehicle accident and was diagnosed with myocardial infarction (MI).

Case: A 33-year-old male patient was brought to our facility by a 112 ambulance after being referred due to a motor vehicle accident. The patient had been electively intubated at an outside facility due to a decreased Glasgow Coma Scale (GCS) score and had not undergone CPR. Imaging at the outside facility revealed a suspicion of subarachnoid hemorrhage (SAH), multiple rib fractures, left-sided pneumothorax, an open fracture of the right wrist, and bilateral elbow fractures. Due to the patient's unstable condition, imaging could not be repeated at our facility. During the transfer, the monitor showed ST elevation in leads D2 and D3. Subsequently, a 12-lead ECG was performed, revealing complete AV block and an inferior myocardial infarction. The patient was consulted with cardiology. The patient underwent joint reductions, stabilization procedures, and tube thoracostomy on the left side in the emergency department. With dual inotropic support, the patient's hemodynamics stabilized and was taken for coronary angiography by the cardiology team. A 100% occlusion in the RCA was identified, and a pacemaker was implanted. Unfortunately, the patient was transferred to the Anesthesia Intensive Care Unit and subsequently passed away.

Conclusions: The importance of ECG monitoring in trauma patients is significant. In this case, the myocardial infarction detected in a motorcyclist who collided with the rear of a truck could be the underlying cause of the accident. ECG and POCUS play a crucial role in the management of trauma patients.

Keywords: Complete AV Block, Myocardial infarction



Ref No: 6675

Pub No: S-112

Acute pericarditis following tetanus vaccination during pregnancy

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Background and aim: Tetanus vaccine is crucial in preventing neonatal tetanus and is routinely administered during pregnancy. Despite being generally safe, rare adverse effects can occur post-vaccination, including systemic reactions such as pericarditis, a rare cardiac complication. Pericarditis is inflammation of the pericardium, usually triggered by viral infections or immune responses. Although post-vaccination pericarditis is rare, it is hypothesized that the immune system's response to the vaccine could lead to this condition. Acute pericarditis during pregnancy poses additional risks due to the increased cardiovascular demands on the body, necessitating close monitoring. Purpose of this case report is to present a rare instance of acute pericarditis following tetanus vaccination during pregnancy and to provide insights into the diagnosis, treatment, and potential etiological mechanisms involved.

Case: 26-year-old woman, 21 weeks pregnancy, presented with complaints of fatigue, malaise, and easy tiring. Physical examination revealed no pathological findings. Laboratory tests showed a white blood cell count of 9700 and CRP of 8. Urinalysis was normal, and troponin levels were measured as 8-10-10. An electrocardiogram revealed loss of R progression in chest leads. Further anamnesis revealed that her symptoms started 3-4 days after receiving a tetanus vaccination. She also mentioned brief chest pain, especially at night, that occurred when lying supine. A bedside echocardiogram revealed an EF of 55%, minimal mitral regurgitation, and approximately 15 mm of pericardial fluid. The patient was consulted with cardiology, and acetylsalicylic acid and colchicine were prescribed. She was closely monitored with frequent outpatient follow-ups, and both the patient and fetus recovered without further complications.

Conclusions: This case highlights a rare instance of acute pericarditis following tetanus vaccination. While generally safe, tetanus vaccination can cause rare but serious complications such as pericarditis. Early recognition, management are essential to prevent adverse outcomes for both mother and fetus. This case emphasizes the need for vigilance regarding rare post-vaccination complications, especially during pregnancy.

Keywords: Tetanus vaccine, Pregnancy, Acute pericarditis



Ref No: 6696

Pub No: S-061

A Case Report of Bupropion Intoxication Leading to Status Epilepticus

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Background and aim: Bupropion is an antidepressant commonly prescribed for the treatment of major depressive disorder and smoking cessation. While generally safe at therapeutic doses, bupropion overdose can lead to severe complications, including seizures and status epilepticus. This case report discusses a patient who developed status epilepticus following a bupropion overdose.

Case: A 27-year-old female was brought to the emergency department by paramedics after experiencing a seizure at home. Upon arrival, it was discovered that she had ingested 30 tablets of Wellbutrin XL (bupropion 300 mg) with suicidal intent. Initial assessment revealed that the patient was tachycardic, with a Glasgow Coma Scale (GCS) score of 13/15. Physical examination showed bilateral pupil dilation, and an electrocardiogram (ECG) revealed sinus tachycardia without ischemic changes. Her blood glucose level was 119 mg/dL, and a brain computed tomography (CT) scan showed no evidence of hemorrhage or ischemia. Blood tests indicated elevated lactate levels and metabolic acidosis, but normal renal and liver function. Despite the administration of maximum doses of levetiracetam, the patient experienced recurrent generalized tonic-clonic seizures, and her consciousness did not improve. A diagnosis of status epilepticus was made, and the patient was intubated for airway protection and deep sedation. Continuous midazolam infusion was initiated for seizure control, and rocuronium bromide was administered as a neuromuscular blocking agent. The patient's tachycardia persisted, but no fever or auto-PEEP was observed during mechanical ventilation. After 5 hours in the emergency department, she was transferred to the intensive care unit (ICU). On the 4th day of ICU care, the patient was successfully extubated, and she was transferred to the psychiatric ward on the 5th day for ongoing treatment.

Conclusions: Bupropion overdose can lead to life-threatening conditions, including status epilepticus. Early diagnosis and appropriate management, including seizure control and airway protection, are essential in improving patient outcomes.

Keywords: bupropion, intoxication, status epilepticus



Ref No: 6730

Pub No: S-117

The Danger Hidden in the Emergency Room: Weil's Disease

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Background and aim: Leptospirosis is a zoonotic infection caused by bacteria of the genus *Leptospira* and is considered an important public health problem in both humans and animals worldwide. This disease, which is more common in humid and tropical regions, can be transmitted to humans from environmental sources such as water and soil through the urine of infected animals. Leptospirosis, which has a wide clinical spectrum, can have a clinical picture ranging from mild flu-like symptoms to fatal organ failure. In this case, we present a 23-year-old patient diagnosed with Weil's disease.

Case: A 23-year-old male patient was presented with complaints of fatigue, fever and jaundice that started 5 days ago. It was discovered that the patient was a construction worker and had no known comorbidities. In the physical examination of the patient, there was widespread icteric appearance in the scleras, abdomen, lower and upper extremities, and the external examination was normal. There was no recent history of mushroom or herbalist product or medical drug use in the patient's history. However, when the patient's history was examined in detail, it was revealed that he had contact with a mouse approximately 10 days ago, which raise suspicion for Weil's disease. Given the history of rodent contact, normal liver function tests (LFT) and INR values, and no obvious pathology detected on ultrasonography (USG), a preliminary diagnosis of Weil's disease was made following an infectious diseases consultation and the patient was admitted to intensive care.

Conclusions: This case demonstrates the importance of rapid recognition of Weil's disease in the emergency department and appropriate treatment approach. The history of rodent contact and clinical findings indicated Weil's disease, a severe form of leptospirosis, which necessitated rapid diagnosis and initiation of treatment. The significant improvement achieved with intensive care and antibiotic treatment demonstrates the effectiveness of early intervention.

Keywords: leptospirosis, weil's disease



Ref No: 6740

Pub No: P-119

chronic spontaneous subdural hematoma in young patient

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Background and aim: Subdural hematomas(SDH) are radiologically concave(half-moon)hemorrhages that develop in the subdural space between the dura and arachnoid membranes due to rupture of bridging veins- sometimes arterial(20-30).SDH is usually seen in the elderly. SDH, which is rare in young people, is usually caused by trauma.SDH may be acute or chronic.SDH is classified as acute(first 3days), subacute(4-20days) and chronic(after the 21stday) according to the duration of hematoma formation after trauma.Computed tomography(CT) should be the first choice for diagnosis.In people with a small brain volume(e.g. elderly people with cerebral atrophy), the hematoma does not cause shifting or neurological impairment unless it is large.However, symptoms usually occur due to increased intracranial pressure.The most common symptom is headache, which may be accompanied by vomiting, fainting, memory impairment, apathy, sleepiness and seizures.In the clinical follow-up of patients with SDH, it was found that the hematoma formed in 60% of the patients resorbed spontaneously.The treatment option may be close follow-up or surgery.

Case: A 41-year-old woman was admitted to our clinic with headache and nausea and vomiting for 20days. She had no known history of chronic disease or trauma.On admission, blood pressure:128/82, pulse rate:60, temperature:36.3 and spO2:93.Neurologic examination and other system examinations were normal.No pathologic condition was observed in blood tests and ECG. CT scan revealed bilateral frontoparietal chronic subdural hematoma(Figure1) and the patient was consulted to neurosurgery.Subsequently, the patient was interned on behalf of neurosurgery for follow-up.

figure 1

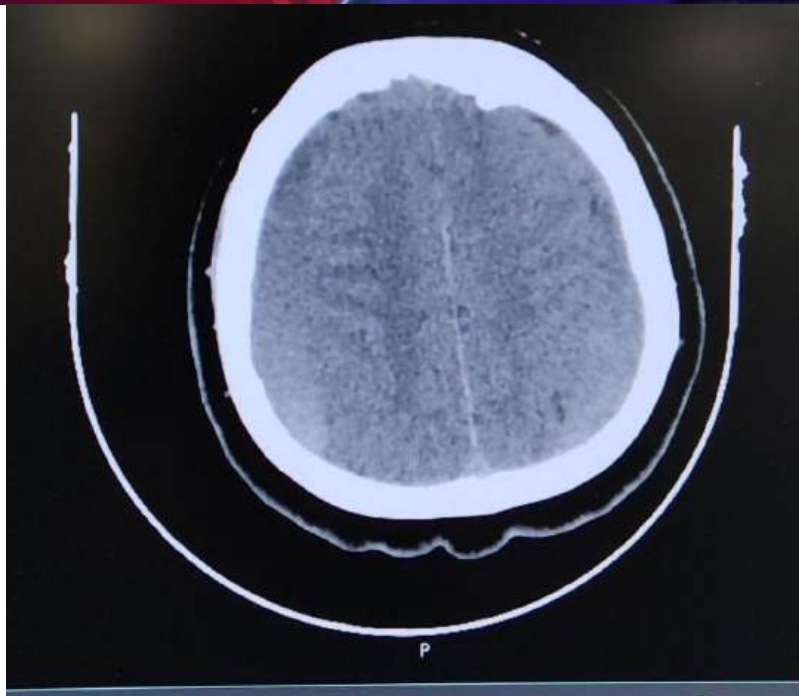


figure 2

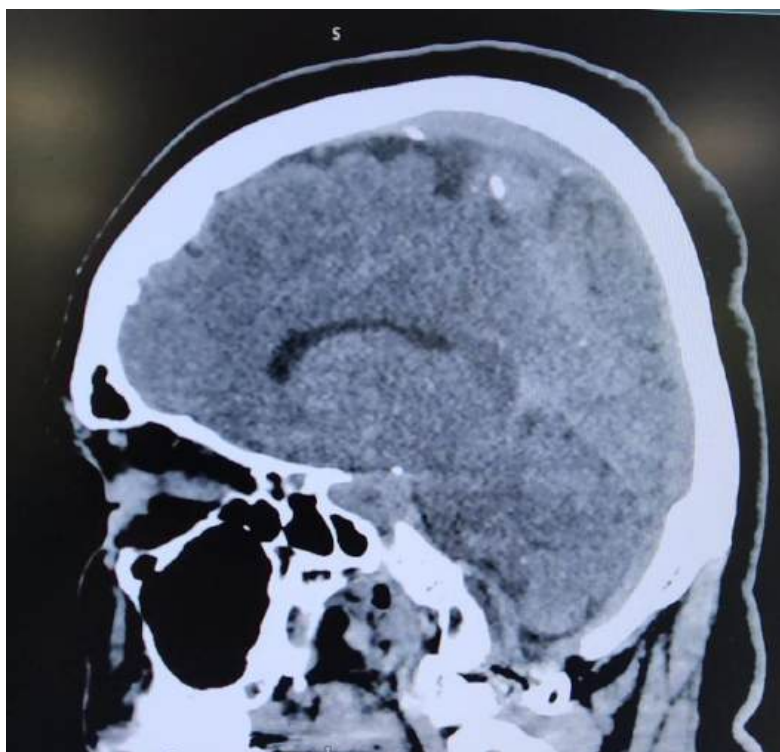
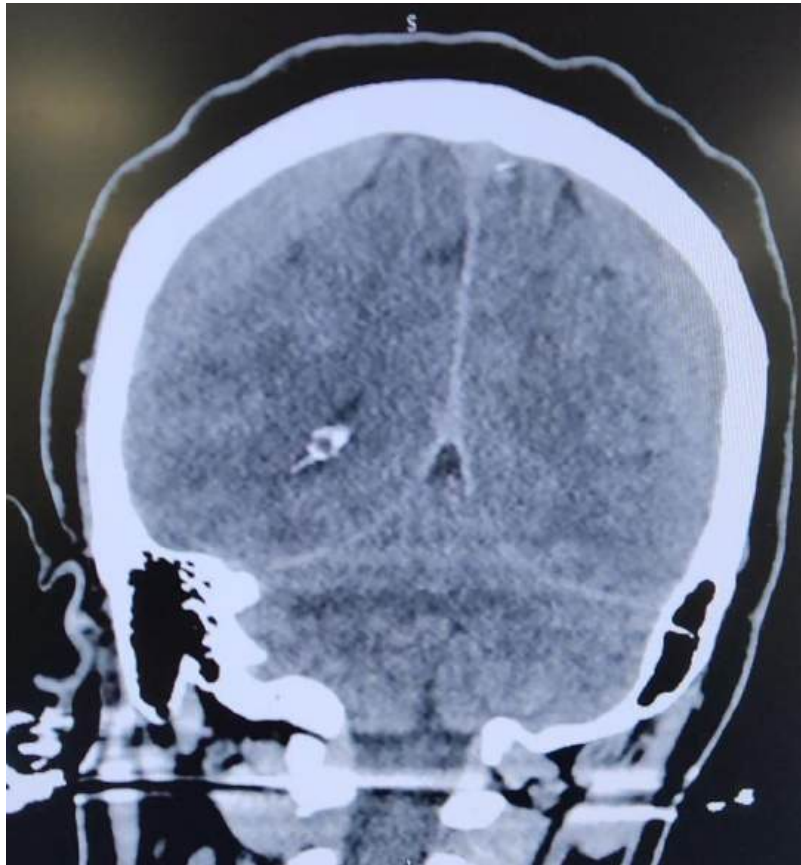




figure 3



Conclusions: Although the clinical presentation of SDH varies, it is an urgent condition requiring follow-up that may cause rapid dementia. In the clinical follow-up of patients with SDH, it was found that the hematoma spontaneously resorbed in 60% of patients. However, surgery is usually the treatment of choice in chronic SDH. Therefore, patients with SDH should be closely monitored for consciousness and vital signs and should be rapidly consulted to neurosurgery.

Keywords: chronic, spontaneous, subdural hematoma, headache



Ref No: 6744

Pub No: S-076

Catamenial Pneumothorax: A Rare and Recurrent Emergency

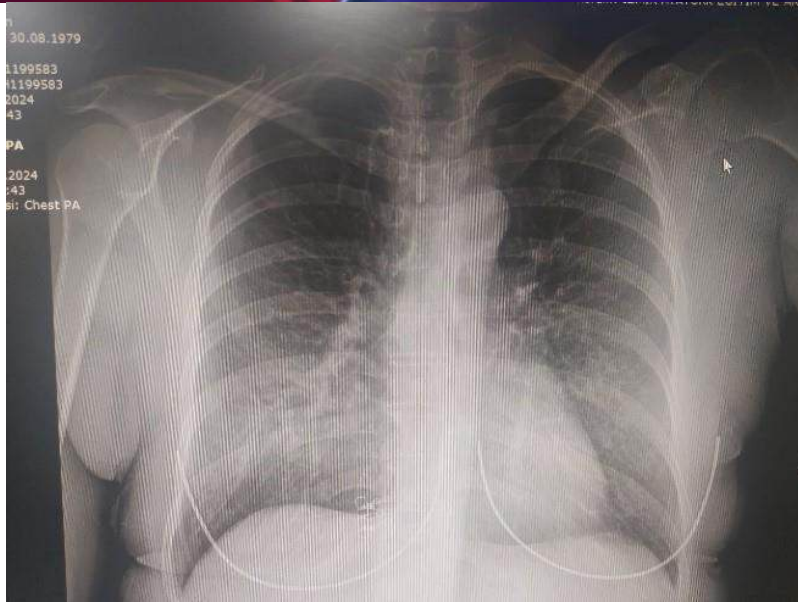
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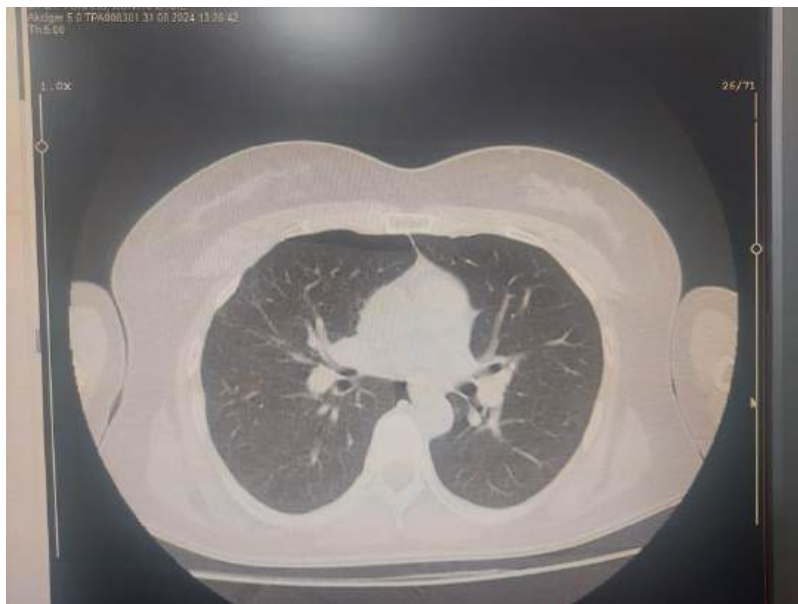
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Background and aim: Catamenial pneumothorax is a rare, spontaneous, and recurrent form of pneumothorax that occurs in synchrony with the menstrual cycle. The term "catamenial" is derived from the Greek word meaning "monthly." It typically manifests within 72 hours of the onset of menstruation and predominantly affects the right lung. It accounts for 3-6% of pneumothorax cases in women. Although the exact etiology is not fully understood, it is frequently associated with thoracic endometriosis and/or diaphragmatic perforations.

Case: A 45-year-old female presented to our emergency department after being referred from another center where a right-sided pneumothorax was detected on a thoracic CT scan. She reported experiencing sharp chest pain on the right side, starting about an hour prior to her visit. Her medical history revealed no chronic diseases or regular medications, and she was a non-smoker. Notably, she had a history of six previous episodes of spontaneous right-sided pneumothorax, including two surgical interventions. The patient was on the first day of her menstrual cycle, and her previous episodes of pneumothorax had also coincided with the onset of menstruation. Upon arrival, her vital signs were stable, with a blood pressure of 126/64 mmHg, a heart rate of 96 beats per minute, and oxygen saturation of 98%. Physical examination revealed decreased breath sounds in the right hemithorax. Chest X-ray and CT confirmed a minimal right-sided pneumothorax, but no chest tube was required. The patient was monitored with oxygen support and admitted to the thoracic surgery department. After four days of observation, she was discharged in good health.



2



Conclusions: Young women presenting to the emergency department during menstruation should be careful about pneumothorax. In particular, recurring stories should bring the diagnosis of catamenial pneumothorax to mind. Multidisciplinary management, including gynecological evaluation and possible hormonal therapy, is crucial for treatment success.

Keywords: Catamenial Pneumothorax, emergency medicine, Thoracic Endometriosis





Ref No: 6785
Pub No: P-018

Kounis Syndrome in a Patient with Amoxicillin Allergy: A Case Report

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Background and aim: Kounis syndrome is an acute coronary syndrome associated with allergy, hypersensitivity or anaphylaxis with activation of mast cells.

Case: A 44-year-old woman presented to the emergency department with complaints of dizziness, nausea, chest pain, dyspnea and pruritic rash that started after taking amoxicillin. She had a known history of hypertension and was taking nebivolol. On physical examination, the patient was conscious, oriented, cooperative and GCS:15. There was no uvular edema and angioedema. The skin was cold and pale. Urticarial plaques were present on bilateral arms and back. The patient described abdominal pain, but abdominal examination was normal and there was no defense-rebound. Bilateral rhonchi were present. On admission vitals; TA: 78/52 mmHg, pulse rate: 114/min, temperature: 37 C°, SPO2: 94%, ECG: no acute changes. Laboratory parameters of the patient were as follows; pH: 7.28, lactate: 3.4, pCO2: 34.9, HCO3: 16.6, WBC: 23.89, Hb: 16.9, plt: 362, troponin: 85,4 (< 14). Since the patient was hypotensive on arrival, 0.5 mg adrenaline IM two doses, 80 mg methylprednisolone, 45,5 mg pheniramine, fluid replacement and oxygenation were provided. During follow-up, the patient described numbness in the right arm and neurologic examination was renewed. Bilateral muscle strength was normal, there were no lateralizing findings and facial asymmetry. Diffusion MRI showed several lacunar infarct areas and neurology was recommended. The patient was followed up in a monitored manner and the control troponin value was 99. The patient, who had atypical chest pain among the complaints on admission, underwent a control ECG; again, there was no acute pathology. The patient was consulted to cardiology with a prediagnosis of Kounis syndrome and hospitalization and CAG were recommended.

Conclusions: With this case report, we wanted to emphasize the importance of cardiac follow-up in patients with a history of allergy and kounis syndrome, which is common but diagnosed with clinical suspicion.

Keywords: Kounis Syndrome, Allergy, Amoxicillin

Ref No: 6848
Pub No: P-130

status epilepticus

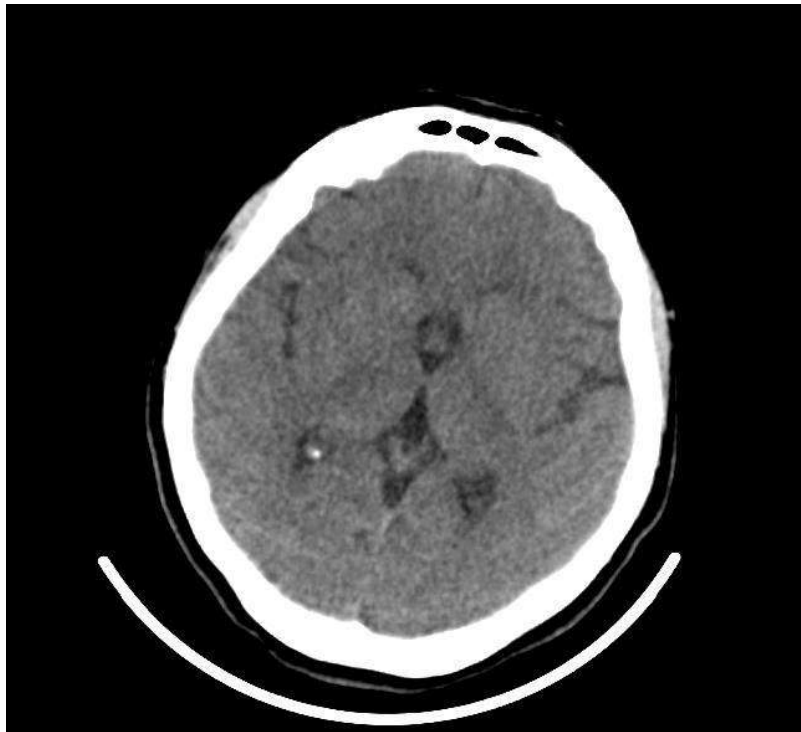
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Background and aim: Epilepsy is a condition that present with various different types of recurring seizures. Among them are generalised tonic and clonic seizures, absence seizures and status epilepticus (SE); which is described as an epileptic seizure that lasts more than 5 minutes. Underlying etiology of epileptic seizures can differ, as genetic, infectious, structural and other etiologies could result in epilepsy. In our case report, we aim to demonstrate how to manage a patient with known generalised tonic and clonic epileptic seizures (GTCS) transforming into focal seizures and eventually into status epilepticus

CT SCAN



Case: A 39 year old female patient with know epilepsy was admitted to our Emergency Department (ED) , with focal seizures, that is described as tonic contractions in her right arm. We detected tonic contractions that continued for about half an hour in her physical examination. This seizure in particular was described as different compared to her previous recurring seizures. After applying a survey following her initial assesment, it was revealed that the patient was regularly



using levatirasetam as her prescribed drug. Upon her arrival to the ED, we administered 10 mg of diazepam for her seizure and evaluated the patient for possible new conditions that could cause this new type of seizure. CT scan and bloodwork results did not reveal any pathologies. However during her observation period, patient never fully recovered from the seizure and her seizures transformed into GTCES. After this, we administered another round of diazepam and phosphenytoin. With no sign of improvement in her condition we acknowledged it as SE. Afterwards we intubated the patient using propofol and transferred her to intensive care unit.

Conclusions: Epilepsy can present itself in various types in the ED. It is important to recognise these types and detect SE. If it is present, ED physicians should act quickly to intervene.

Keywords: epile

Ref No: 6891
Pub No: S-067

Exitus Cause in a Patient Presenting with Abdominal Pain: Leriche Syndrome

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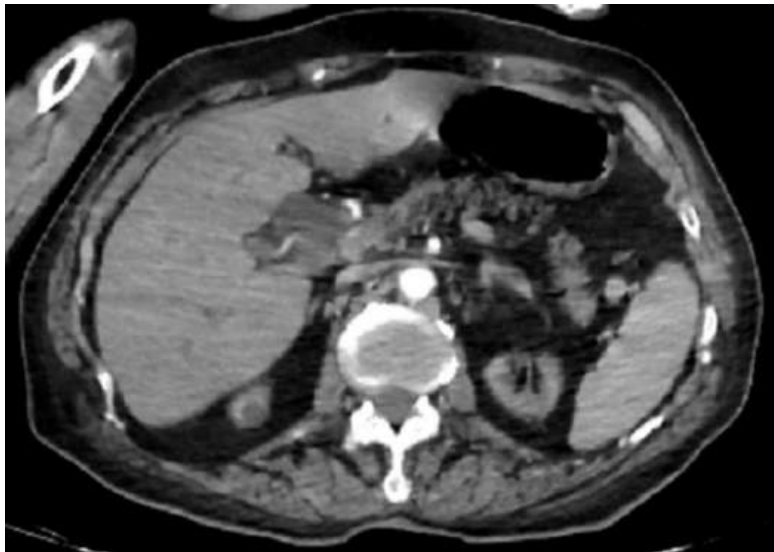
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Background and aim: Leriche syndrome is a rare condition causing total aortic occlusion. The occlusion is often distal to the renal arteries, leading to varying clinical presentations. Typical features include claudication and absent femoral pulses, but symptoms can also include impotence, renal dysfunction, extremity coldness and pallor, and abdominal pain. Risk factors include male gender, smoking, hypertension, hyperlipidemia, and diabetes mellitus. Management of Leriche syndrome requires a multidisciplinary approach, including lifestyle changes and surgical interventions based on the patient's condition and the extent of collateral circulation. Rapid imaging for diagnosis, hemodynamic stabilization, and early surgical consultation are essential in the emergency department.

Case: We report a 68-year-old man who presented to the emergency department with abdominal pain and nausea lasting several hours. His medical history included smoking, diabetes mellitus, chronic kidney disease, hypertension, coronary artery bypass grafting (CABG), cholecystectomy and ileus surgery. Physical examination revealed diffuse abdominal tenderness and absence of bilateral femoral pulses. Bedside ultrasonography showed a thrombus in the abdominal aorta without aneurysm or dissection, absence of flow in both femoral arteries, and dilated intrahepatic bile ducts (IHBD) with 14 mm dilated common bile duct. The patient was immediately scheduled for CT angiography with suspicion of aortic thrombosis and choledocholithiasis. The patient was consulted with gastroenterology, general surgery and cardiovascular surgery and was hospitalized in the intensive care unit after the surgeons did not consider surgery. He died 12 hours later.

Abdominal Aorta CT Angiography 1



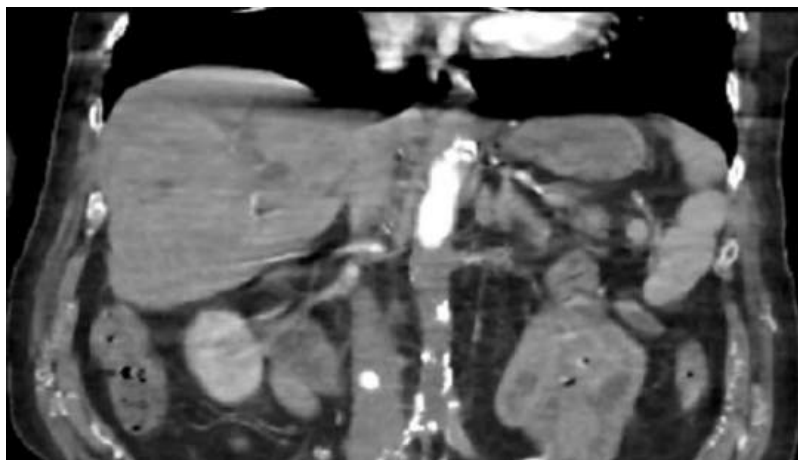
View of the aorta proximal to the occlusion

Abdominal Aorta CT Angiography 2



Occluded abdominal aorta

Abdominal Aorta CT Angiography 3



View of the occluded abdominal aorta in coronal section

Conclusions: Leriche syndrome can present with varying clinical symptoms depending on the level of aortic thrombosis, often associated with absent claudication and bilateral femoral pulses. Although treatment may include lifestyle modifications and medical management, it can sometimes result in mortality. Emergency physicians should promptly monitor, stabilize hemodynamics, expedite diagnostic tests, and seek early surgical consultation when Leriche syndrome is suspected.



Keywords: Leriche syndrome, Abdominal pain, Claudication, Aortoiliac occlusive disease, Pulseless femoral artery



Ref No: 6935

Pub No: S-009

A Rare Case in the Emergency Department: Superior Vena Cava Syndrome

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Background and aim: Superior vena cava (SVC) syndrome is a rare clinical condition resulting from the obstruction of the SVC, often associated with malignancies. This syndrome manifests with symptoms such as neck and facial swelling, shortness of breath, and requires urgent intervention. This case report discusses a rare instance of SVC syndrome accompanied by jugular vein thrombosis, pulmonary embolism, and a mediastinal mass.

Case: A 68-year-old male with no known medical history presented to the emergency department with complaints of neck swelling, facial flushing, shortness of breath, and exertional dyspnea. Examination revealed cyanosis of the neck and head, redness and tearing of the eyes, and varicose vein dilations on the anterior chest wall. The Pemberton maneuver reinforced the suspicion of SVC syndrome. Subsequent ultrasonography and CT angiography revealed left jugular vein thrombosis, a mediastinal mass, and a pulmonary embolism in the right lung. Supportive treatment, including oxygen therapy, anticoagulation, and fluid therapy, was initiated. The patient was recommended for intensive care monitoring and referred to an external facility for further investigation and treatment.

Figure 1: Pemberton Maneuver



The Pemberton maneuver is performed by having the patient raise their arms above their head. If signs such as facial and neck flushing, swelling, or cyanotic discoloration are observed during this time, the test is considered positive and suggests SVC syndrome.

Figure 2: Pulmonary CT angiography



Bilateral pulmonary artery filling defect on pulmonary CT angiography

Conclusions: SVC syndrome is a rare clinical condition that must be quickly recognized and effectively managed in the emergency department. This case highlights the rare but serious combination of SVC syndrome with jugular vein thrombosis and pulmonary embolism. Pulmonary embolism is typically a secondary complication arising during the treatment of malignancies; however, in this case, it was identified at the initial presentation. In such cases, a multidisciplinary approach, accurate diagnosis, and early intervention are crucial for improving patient outcomes. SVC syndrome should always be considered in patients presenting to the emergency department with symptoms such as neck swelling and shortness of breath, and prompt diagnostic and therapeutic measures should be taken. This case underscores the importance of clinical suspicion and thorough evaluation in the emergency department.

Keywords: pulmonary embolism, superior vena cava, Pemberton maneuver



Ref No: 6945

Pub No: S-068

Doctor's Dilemma

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¹Prof. Dr. Cemil Taşcıoğlu Şehir Hastanesi

Yavuzselim Koca / Prof. Dr. Cemil Taşcıoğlu Şehir Hastanesi

Background and aim: In the patients we examine, we can identify pathologies outside the area of focus. In this case, we describe the dilemma we faced in addressing an unforeseen problem.

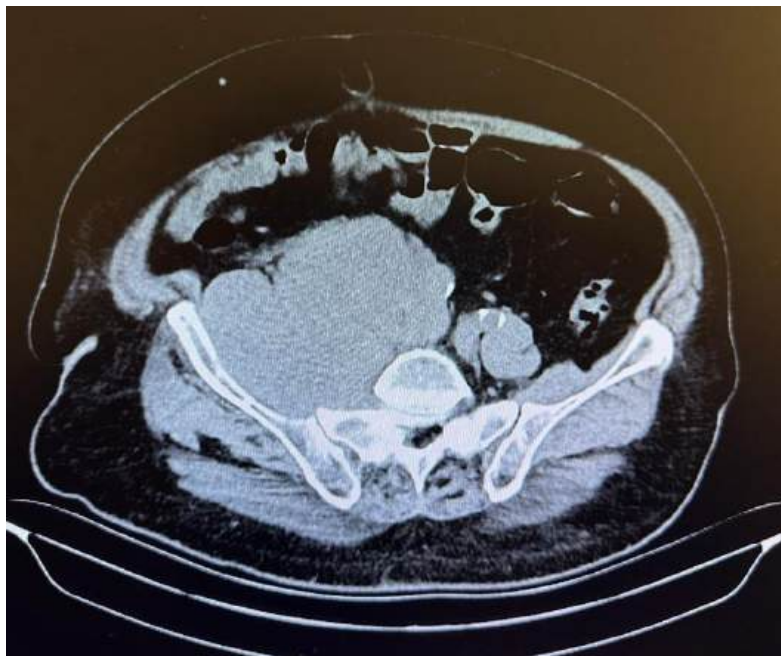
Case: An 81-year-old male patient presented to the emergency department with severe low back pain and a subsequent fall. It was discovered that the patient had been diagnosed with deep vein thrombosis 1 month ago and was receiving treatment. There is pain in the right thigh that radiates to the abdomen upon elevation. The general condition is moderate. Arterial blood pressure is 102/57 mmHg, pulse is 110, Hemogram shows a hemoglobin level of 10.3 and INR is 1.4. The patient is on edoxaban and acetylsalicylic acid due to the diagnosis made last month. Imaging of the spinal vertebrae due to trauma reveals no pathology in the bone structures. However, a computed tomography scan focused on the lumbar vertebrae shows a mass-like lesion in the right side of the abdomen. An intravenous contrast-enhanced abdominal tomography is requested to better understand the nature of the lesion. This scan reveals a hematoma in the right psoas muscle. Consultation with Orthopedics and Interventional Radiology is sought for further evaluation of the muscle hematoma. Following the incidental finding of the psoas hematoma, intervention is being considered for the patient who is on anticoagulation therapy. While considering discontinuing anticoagulation treatment, another finding is noted on the same contrast-enhanced CT scan: the patient also has a thrombus in the inferior vena cava.

vertebral CT



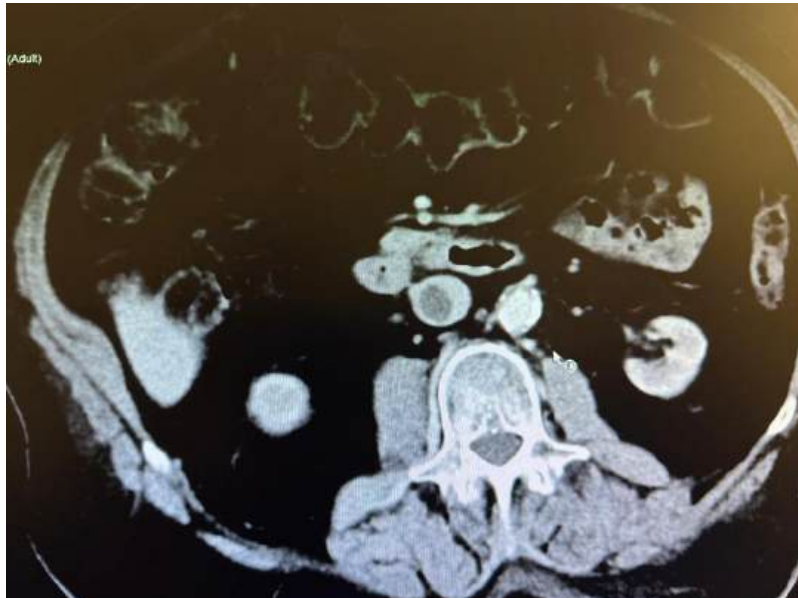
When examining the bone structure, abnormalities in the soft tissue are noted

psoas hematoma



psoas hematoma

vena cava inferior



Thrombus in the inferior vena cava on contrast-enhanced CT

Conclusions: The patient has a thrombus that could potentially lead to a pulmonary embolism and a hemorrhage resulting in a drop in hemoglobin. Since the hemorrhage is self-limiting, no emergency intervention was performed. Due to the presence of a bleeding focus, the patient could not be managed with Coumadin. For monitoring potential complications, the patient was placed under follow-up with Interventional Radiology, Orthopedics, Cardiovascular Surgery and Pulmonology.

Keywords: low back pain, psoas hematoma, thrombus, dilemma



Ref No: 6965

Pub No: S-025

Is Associated the Splenic Infarct with Acute Hepatitis?

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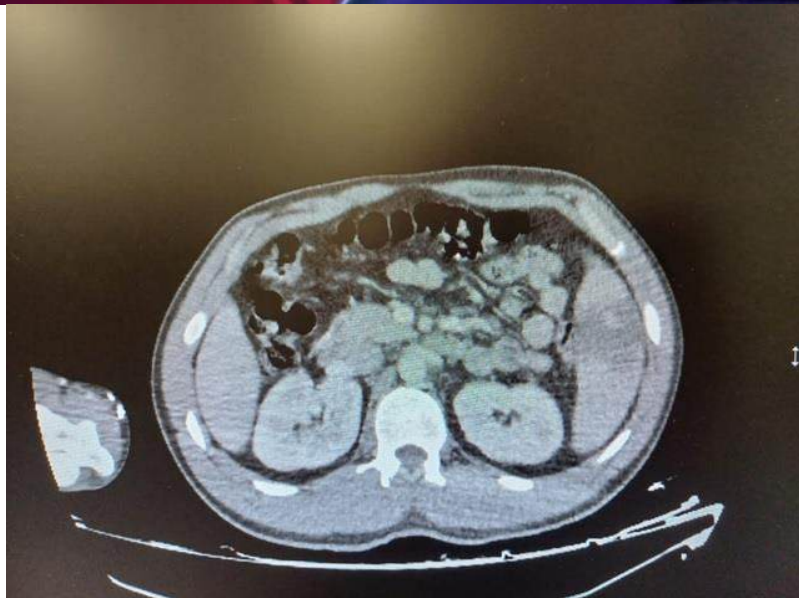
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Background and aim: Splenic infarction (SI) is typically associated with cardiovascular causes or hypercoagulable states. Previously, it has been associated with comorbidities such as primary biliary cirrhosis, alcoholic hepatitis, but there is little to no mention of spontaneous SI in acute hepatitis.

Case: A 25-year-old caucasian male patient experienced mild nausea, constipation, and weakness for a couple of weeks, followed by the onset of abdominal pain that lasted for three days. He had no fever, heart rate was 80-90/minute, blood pressure was 132/75 mmHg, and respiratory rate was 17/minute. He was oriented and cooperative. He has generalized abdominal tenderness in the physical examination. In laboratory; Platelet 53.000/ μ L; white blood cell count was 10.350 / μ L with 80.2 Lymphositos; 13.2% neutrophenia. Alanine aminotransferase was 531U/L; aspartate transaminase, 236 U/L; alkaline phosphatase 339 U/L; total bilirubin 4,5 gr/L, direct Bilirubin 2,81 g/dL; Albumin 3,61 gr/L; Gama Glutamil Transferas 443, Lactat Dehidrogenas 631; CRP 20.1; Calcium, inorganic 7,9 gr/L; Phosphor, inorganic 1.7 gr/L; Triglicerit 377mg/L; Kolesterol 114 mg/L; HDL Kolesterol 107 mf/L; international normalized ratio, 1.31; APTT 41.2; D-Dimer, quantitative 4.08 mg/L; Procalcitonin 1,2 ng/L; HbsAg was positive as 1.18; Hemoglobin electrophoresis, Lupus Anticoagulant T, and ANA T were negative. The electrocardiogram showed a normal sinus rhythm. A contrast-enhanced CT scan was performed, revealing lesions in the spleen indicative of infarction (Figure 1). The decision was made to manage the patient conservatively, and his condition improved until discharge. After discharge, his abdominal pain and nausea decreased to a comfortable level.

Figure 1



Abdomen computerized tomography image of the case

Conclusions: In conclusion, the spleen is a highly sensitive organ with a rich vascular supply, making it particularly susceptible to thromboembolic events. Splenic infarction, which may develop as a rare complication that may occur as a result of the inflammatory response that develops after acute hepatitis, should be included in the differential diagnosis.

Keywords: Acute hepatitis, liver disease, splenic infarction



Ref No: 6968

Pub No: S-050

Hyperglycemic Emergencies: A Systematic Approach With A Specific Case Report

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Background and aim: Hyperosmolar hyperglycemic state (HHS) is a diabetic emergency with high morbidity and mortality rates. It is characterized by dehydration and altered mental status without ketoacidosis. Common physical signs include profound dehydration and neurological symptoms. Electrolyte disturbances are frequent, and infections are the most common precipitating cause. Emergency management focuses on rapid diagnosis, fluid therapy, and maintaining electrolyte balance.

Case: A 55-year-old man was brought to the emergency room after being found shivering alone on the street. He was confused, nonoriented, and noncooperative, with a GCS of 9. Vital signs were blood pressure: 160/80, pulse: 77, respiration: 16/min, temperature: 36.6°C, saturation: 99%, and fingertip blood glucose: "high". Initial lab results showed glucose: 1100 mg/dL, pH: 7.4, pCO₂: 30 mmHg, pO₂: 65 mmHg, anion gap: 6.3 mEq/L, lactate: 5 mmol/L, and potassium: 5.5 mmol. Urinalysis was ketone negative. A diagnosis of Hyperosmolar Nonketotic Coma/HHS was made. The patient was treated with insulin and saline. Post-treatment glucose was 223 mg/dL, and sodium was 158 mmol/L. The patient was admitted to the internal medicine department.

Conclusions: HHS is less common than diabetic ketoacidosis (DKA) but has a higher mortality rate. It usually affects children or young adults and accounts for 13% of hyperglycemia-related emergency hospitalizations in the U.S. Hallmarks of HHS include profound dehydration, marked hyperglycemia, and mild or absent ketosis. Insulin levels in HHS are sufficient to prevent ketogenesis but not hyperglycemia. Treatment involves intensive monitoring and correction of dehydration, requiring about 9 L of 0.9% saline over 48 hours in adults. Potassium replacement starts once urine output is established. Identifying and treating underlying causes is essential. DKA and HHS are the most common hyperglycemic emergencies associated with diabetes mellitus. Aggressive volume replacement and careful electrolyte management are crucial. Emergency treatment involves rapid assessment, monitoring, and appropriate therapeutic measures for each condition.

Keywords: Case report, hyperglycemic hyperosmolar state, nonketotic hyperglycemic coma, diabetic ketoacidosis, hyperglycemia



Ref No: 6988

Pub No: P-112

POST-CELLULITIS INFECTIOUS ENDOCARDITIS

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Background and aim: Since infective endocarditis affects all organs and systems, its clinical presentation is nonspecific and varies. Predisposing factors include cardiac structural anomalies, drug injection, indwelling catheter, poor dental hygiene, HIV, prosthetic valve. The mitral valve is most commonly affected.. Pathogens frequently include staphylococci streptococci enterococci. Prosthetic valve endocarditis is often caused by streptococcus epidermidis, aspergillus, candida albicans. Patients have symptoms such as fever, chills, malaise, dyspnoea, anorexia, chest pain, abdominal pain and altered consciousness. There are findings such as fever, skin lesions, osler nodules, embolism findings, petechiae, renal failure, mycotic aneurysm, janeway lesion. Duke criteria are helpful in the diagnosis.

Case: 43 years old female patient with a known history of asthma, heart failure and metal valve replacement admitted to the emergency department with leg oedema, pain, high fever, chills, weakness and chest pain for 3 days. Antibiotic treatment was started 2 days ago. Vitals : Blood pressure: 120/76 mm/Hg Fever: 38 degrees Saturation: 94 mm/Hg Pulse rate: 90 beats/min On physical examination, extremity pulses are palpable and capillary filling is <2 sn There is no motor and sensory deficit. There is oedema and temperature increase on the lower left leg. Pretibial oedema bilateral +2. Lung sounds have bilateral rales in the basal region. On ECG: Normal sinus rhythm with prolonged PR interval. Laboratory tests WBC: 13 (1000uL) Hb: 7.2 g/dL CRP: 392 mg/L Troponin: 39-42 ng/L Procalcitonin: 25.8 ng/mL No hypoxia hypercapnia hypocapnia acidosis in blood gas. Doppler ultrasonography: DVT arterial embolism were not detected. Echocardiography no significant gradient and vegetation were observed on the valves. The patient was internetted to infectious diseases for treatment for endocarditis.

Conclusions: Infectin endocarditis is important in terms of mortality and morbidity. It is a disease that must be treated absolutely. It should be kept in mind in patients with infective findings and predisposing factors.

Keywords: Cellulitis, Infective endocarditis, Acute phase reactant elevation, Nonspecific symptom



Ref No: 7118

Pub No: S-033

A rare cause of lung fibrosis: Bleomycin

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Fatmana Saraç / İzmir Şehir Hastanesi

Background and aim: A twenty seven year old man was admitted to our hospital with complaints of palpitations, fever and shortness of breath, which had been gradually increasing for a week. The complaints started after the patient was operated on for seminoma a year ago and then received bleomycin treatment 3 months ago. He has been experiencing respiratory distress intermittently for three months. There is a history of hospitalization for a patient who had Covid before. PCR is detected as negative. He has Covid and seminoma disease in his medical history. At the time of admission, blood pressure was 125/76 mmHg, pulse was 110/min, temperature was 36.7°C, oxygen saturation was 86lt/min, respiratory rate was 25/min. During the examination, rales were present in the left bases of the lung. Complete blood count WBC:17.000, CRP:148. Arterial blood gas examination revealed PaO₂ 47 mmHg, oxygen saturation oxygenated 86 pH 7.37. The patient was started on oxygen at 6lt/min via mask, salbutamol 0.5 mg nebulized 3 times and 1 mg/kg prednisone, AB treatment was given. CT was requested. Ground glass densities were observed in both lungs. Significant fibrotic changes were observed in the bilateral lungs and a honeycomb appearance. The patient was consulted with Chest Diseases and was admitted to the ICU.

Case: Bleomycin is an antibiotic with antitumoral effect obtained from the *Streptomyces verticillus* species. Since it has been shown to be highly concentrated in the lung, kidney, peritoneum and lymph system, it is used against uterine cancer, seminoma, Hodgkin's disease, lymphosarcoma, and teratocarcinoma. BLM converts molecular oxygen into superoxide and hydroxyl radicals by forming a bleomycin-iron complex. This has an anti-neoplastic effect by causing strand breaks in DNA and damage to DNA-RNA-protein synthesis. Since the hydrolase enzyme that inactivates bleomycin is found at very low levels in lung tissue compared to other tissues, it is a side effect that is especially common in the lungs.

Conclusions: In young patients coming to the emergency department with dyspnea, anamnesis and history are important in addition to laboratory and imaging studies, and drug toxicity should be questioned in the differential diagnosis.

BLEOMİSİN TOKSİTİTESİ



İNTERTİSYEL FİBROZİS GÖRÜNTÜSÜ

A rare cause of lung fibrosis: Bleomycin

A twenty seven year old man

Dispne

Seminoma

İntertisyel AC Fibrozisi

Bleomisin Toksikitesi

Keywords: Bleomisin, intertisyel fibrozis, dispne, seminoma

Ref No: 7176

Pub No: P-063

Necrotizing Fasciitis; A Case Report

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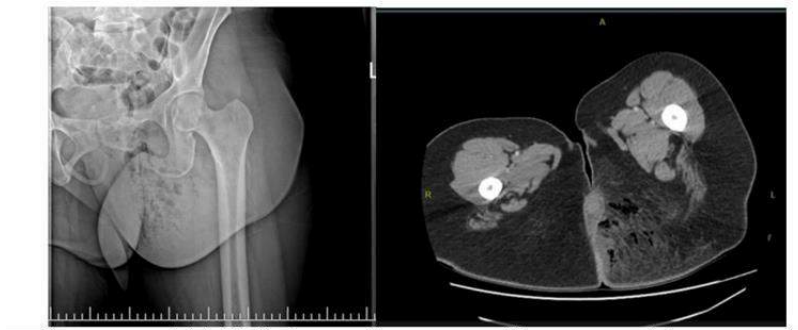
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Background and aim: Necrotizing fasciitis (NF) is a severe infection characterized by rapidly spreading necrosis of soft tissues and fasciae. If untreated, it can be fatal and is often confused with other soft tissue infections in its early stages. In most cases, patients present with intense pain disproportionate to the lesion, and systemic symptoms such as fever, tachycardia, and sepsis may appear in the advanced stages. Both gram-positive and gram-negative bacteria, as well as anaerobic organisms, are common causative agents.

Case: The case report describes a 32-year-old female patient who developed pain, redness, and swelling in the left hip region following an intramuscular injection. The patient was later diagnosed with diabetic ketoacidosis (DKA) and NF. Laboratory tests revealed elevated glucose levels, metabolic acidosis, and signs of infection. Treatment included broad-spectrum antibiotics (ceftriaxone and metronidazole) and insulin infusion, and the patient was admitted for debridement. Despite medical intervention, the patient eventually passed away.

figure 1-2



In the patient's direct radiography (Figure 1) and computerized tomography (Figure 2)

Conclusions: In conclusion, risk factors for NF include obesity, vascular diseases, diabetes, and immunosuppressive conditions. Diabetic patients are particularly prone to infections, and their recovery process is often complicated. The literature reports a history of diabetes in 60% of NF cases. Early surgical debridement and antibiotic treatment are crucial for survival. In diabetic patients presenting with nausea and vomiting, DKA should be considered, and infections must be promptly diagnosed and treated to prevent rapid progression.

Keywords: Necrotizing fasciitis, Soft tissue infection, Rapid necrosis, Diabetes

Ref No: 7266

Pub No: S-100

A difficult differential diagnosis of chest pain in young patients: apical hypertrophic cardiomyopathy

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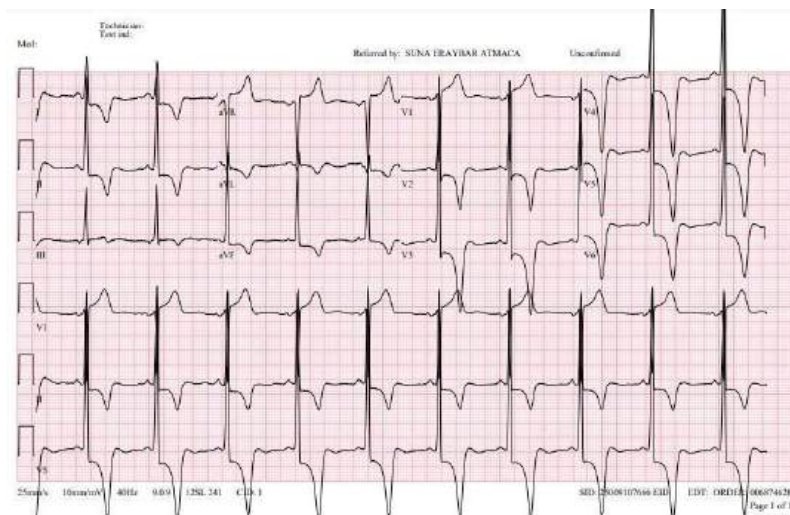
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Background and aim: Chest pain is the second most common reason for admission to the emergency department (ED) after trauma. Many medical conditions can cause chest pain, and the underlying cause needs to be elucidated before it can be adequately treated. Apical hypertrophic cardiomyopathy (ApHCM) is one of the rare causes of chest pain and accounts for 8% of hypertrophic cardiomyopathies (HCM). In this report, we wanted to present the case of ApHCM, which is a rare cause of chest pain

Case: A 30-year-old male patient admitted to the ED with chest pain, palpitations and numbness in the left arm. Vital signs as follows BP: 157/93 mmHg HR:71 beats/min T: 36.5 °C Saturation: 98 . No pathology was found in system examinations. In the electrocardiogram (ECG), there is a giant negative T wave in leads D2, V2-V6, 0.5 mm ST segment depression and signs of left ventricular hypertrophy (Figure 1). hscTnT value was 58 ng/L, and the control hscTnT value was 61.5 ng/L. ApHCM (Yamaguchi syndrome) was considered with transthoracic echocardiography (ECHO) and he was admitted to the cardiology ward. Coronary angiography was found to be normal. He was discharged from the cardiology ward on the 3rd day of his hospitalization, with coumadin and diltizem drug treatment.

ecg



negative T wave in leads D2, V2-V6, 0.5 mm ST segment depression



Conclusions: ApHCM can cause ventricular malignant dysrhythmias, atrial fibrillation, and ischemic chest pain. Definitive diagnosis is made by ECG and transthoracic ECHO. Apical HCM can mimic acute coronary syndrome with large, negative T waves. Among HCMs, ApHCM has higher mortality rates. Clinicians should be aware of such ECG and echocardiography findings to prevent possible morbidity and mortality.

Keywords: Chest pain, Apical, hypertrophic cardiomyopathy, electrocardiogram, echocardiography

Ref No: 7464

Pub No: S-095

Melkersson–Rosenthal Syndrome: An Unusual Cause of Facial Paralysis

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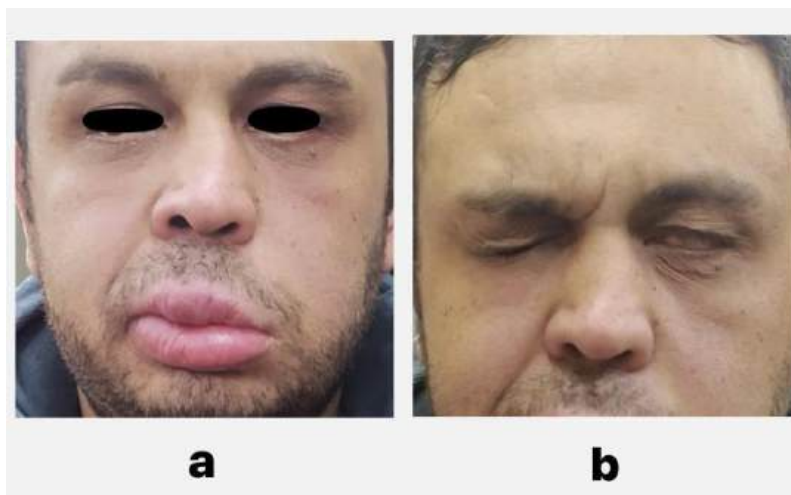
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Background and aim: Melkersson-Rosenthal Syndrome (MRS) is a rare disorder characterized by orofacial edema, recurrent facial paralysis, and a fissured tongue. However, all three symptoms rarely occur simultaneously and often appear at different times in a person's life. The most common symptom is orofacial edema. The exact cause of MRS is unclear, but genetic factors, immune deficiencies, infections, food intolerances, and stress are believed to contribute. MRS may also be associated with conditions such as Crohn's disease or sarcoidosis. It can occur at any age, though symptoms typically begin in early adulthood.

Case: A 56-year-old male with no systemic diseases or regular medications presented to the emergency room with left lip swelling and facial paralysis (Figure 1). Intraoral examination revealed a normal tongue. His history included a previous episode of left-sided facial paralysis. Laboratory tests (blood count, coagulogram, biochemistry, renal and hepatic function) were normal. Emergency computed tomography (CT) and magnetic resonance imaging (MRI) of the brain showed no abnormalities. Suspecting MRS, we reviewed the literature for diagnosis and treatment. The patient was consulted to Otolaryngology with a preliminary diagnosis of MRS, which was confirmed based on clinical findings. The patient was treated with oral corticosteroids for 1 week, followed by a 2-week tapering period. The swelling and facial paralysis resolved after treatment.

Figure 1



Orofacial edema and peripheral facial paralysis on the left side of the patient's face



Conclusions: MRS is a clinical syndrome. Histopathological analysis of oral symptoms can assist in diagnosing MRS, but the absence of granulomatous inflammation does not rule out the diagnosis. No specific histological findings, biomarkers, or imaging studies can confirm MRS. Management is mostly symptomatic, with short courses of oral corticosteroids as the primary treatment. Other options include nonsteroidal anti-inflammatory drugs, antibiotics, and immunosuppressive agents. Surgical decompression of the facial nerve may be considered if facial nerve palsy does not respond to medical treatment.

Keywords: Melkersson–Rosenthal syndrome, orofacial edema, relapsing facial paralysis, steroid use, case report



Ref No: 7485

Pub No: P-049

Penetrating arrow in the hand: a case report

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Background and aim: The majority of sports injuries related to archery are shoulder and soft tissue injuries, typically caused by the repetitive motion of drawing the bow. While accidental penetrating injuries in archery are rare, the rising interest in traditional archery could lead to an increase in such cases. The severity of penetrating arrow trauma depends on factors like the bow's draw weight, arrowhead design, release distance, and the tissues affected. These injuries can be life-threatening. Due to tissue elasticity, the pressure exerted by the arrow shaft can partially control bleeding from nearby vessels and tissues. In this case report, we would like to present a rare penetrating arrow injury that occurred in the hand.

Case: A 38-year-old professional athlete was admitted to the emergency room with a 30-minute arrow fragment puncturing injury to the left index finger and thumb. On examination a arrow fragment was stuck on the dorsal aspect of left thumb finger of metacarpal and index finger palmar aspect distal phalanges, bleeding from the wound was mild. Sensations and capillary refill distal to wound were normal. Radiographic examination revealed no bony injury. Tetanus toxoid and 1 gram of intravenous cefazolin was given to patient. Under Local anaesthesia using 2% lidocaine arrow fragment was removed by extending the wound both proximally and distally, thorough wound washing was done after that thorough wound debridement was done by removing all the devitalized tissues. After the extraction of the foreign body the distal neurovascular examination was normal. Wound was not closed and antiseptic dressing was applied. Postoperatively no complication was seen.



arrow fragment in the hand



Radiographic examination with arrow fragment and bow



Postoperatively arrow fragment

Conclusions: Penetrating injuries caused by the impalement of foreign objects in professional athletes must be identified promptly and treated aggressively and quickly to prevent both mechanical and infectious complications.

Keywords: arrow, archery, sports, injury



Ref No: 7490

Pub No: S-091

Seizure-Induced Multitrauma and Pulmonary Embolism: A Rare Complication of Generalized Tonic-Clonic Seizures in an Elderly Patient with Comorbidities

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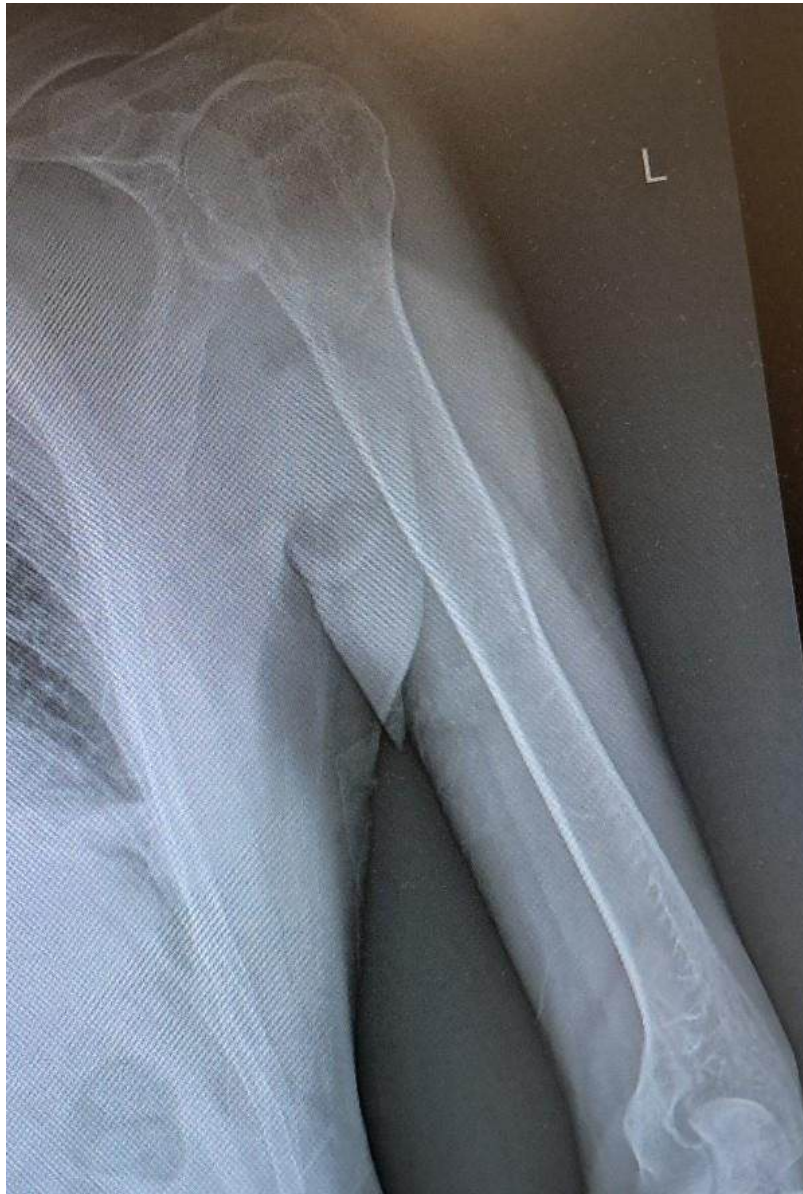
Background and aim: Generalized tonic-clonic (GTC) seizures cause severe muscle contractions that can lead to serious complications, particularly in elderly patients with comorbidities such as coronary artery disease and prior neurological interventions. Traumatic fractures due to intense contractions are rare but dangerous. Additionally, hypoxia from prolonged or recurrent seizures can result in ischemic complications, including pulmonary embolism. This case report presents a rare instance of GTC seizure causing bilateral femoral neck fractures and a pulmonary embolism in an elderly patient with coronary artery disease and a history of craniotomy. The report highlights the need for early recognition and multidisciplinary management in emergency settings.

Case: A 58-year-old male with a 15-year history of epilepsy was brought to the emergency department following a seizure episode. He was found unconscious by paramedics, displaying muscle jerking and hypersalivation. Upon arrival, he experienced two additional seizures, which were controlled with intravenous diazepam (5 mg + 5 mg) and 1500 mg of Keppra. His medical history included coronary artery disease, a prior craniotomy, and regular use of antiepileptics. The patient was disoriented with a Glasgow Coma Score of 8 and showed tachypnea and desaturation (SpO₂ 73%), which improved to 93% with oxygen therapy. Lab results indicated severe metabolic acidosis and elevated lactate levels. Cranial CT revealed no acute hemorrhage but an old craniotomy defect. Two hours later, he regained consciousness. A pelvic CT confirmed bilateral displaced femoral neck fractures. Orthopedic consultation was arranged. The elevated troponin levels, without ischemic ECG changes, were attributed to seizure-induced muscle contractions, hypoxia, and metabolic acidosis rather than myocardial ischemia.

fracture of femur



fracture of femur



Conclusions: GTC seizures can cause severe trauma and ischemic complications in elderly patients with comorbidities. In this case, muscle contractions led to bilateral femoral neck fractures, and prolonged hypoxia contributed to pulmonary embolism. Multidisciplinary care is essential for early recognition and improved outcomes.

Keywords: Generalized tonic-clonic seizure Femoral neck fractures Hypoxia Troponin elevation Metabolic acidosis

Ref No: 7571

Pub No: S-108

RARE TRAUMA; Bilateral adrenal hematoma

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Background and aim: Adrenal injury is rare and occurs in less than 1% of trauma patients. Most are caused by blunt mechanisms. The best diagnostic image of adrenal hematoma (AH) is seen on abdominal CT. Bilateral AH can lead to adrenal crisis. In cases of severe trauma, it can be overlooked as a cause of acute physiologic deterioration and can result in death.

Case: A 60-year-old female patient comes with a fall from 2.5 meters. There is a history of kah, kyy, ht. Vital signs T.A.: 166/77 sat: 92 pulse: 77 gks: 15 consciousness is open but tends to sleep, she has vomited once. periorbital ecchymosis and edema on the left side of the face, approximately 5 cm incision sutured on the left orbital lateral wall. It was seen that the left forearm was in a long arm splint with a preliminary diagnosis of fx on both forearms, there is tenderness, edema and crepitation on the right forearm, there is an open incision the size of a bird's eye on the medial aspect of the wrist. There are punctate ecchymotic areas on the right shoulder, other system examinations are normal. Blood: urea; 43 creatine; 0.81 ast: 128 alt: 109 wbc: 16.1-18.4 hb: 14.6-13.6. Antibiotics and tetanus were administered. Imaging Brain CT normal Multiple fractures in maxillofacial CT Thorax CT; minimal pnx Abdominal CT: There is a hyperdense appearance compatible with adrenal hematoma, approximately 27x24 mm in the left adrenal, approximately 19x9 mm in the lateral crus of the right adrenal. Linear fluid values and dirty appearance accompany the adrenal fat tissue, more pronounced on the left. Xray bilateral radius ulna fractures the patient was admitted to the general surgery intensive care unit

BAH 1



BAH2



Conclusions: Bilateral AD can cause adrenal crisis, a catastrophic event that is often overlooked as a cause of patient deterioration. Delay in treating adrenal crisis can lead to death.

Keywords: Adrenal hemotoma, trauma, Adrenal hemotoma, trauma



Ref No: 7578

Pub No: S-056

Patient applied with paralysis was discharged from ED on foot

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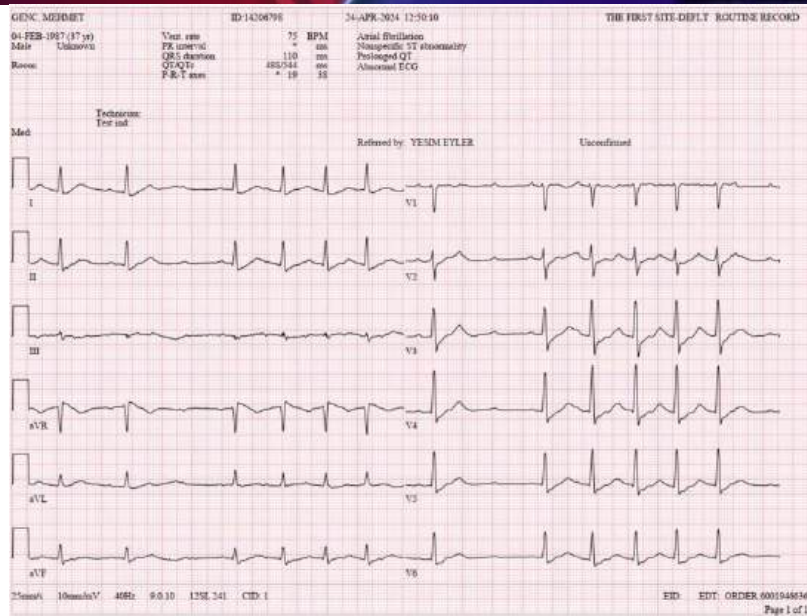
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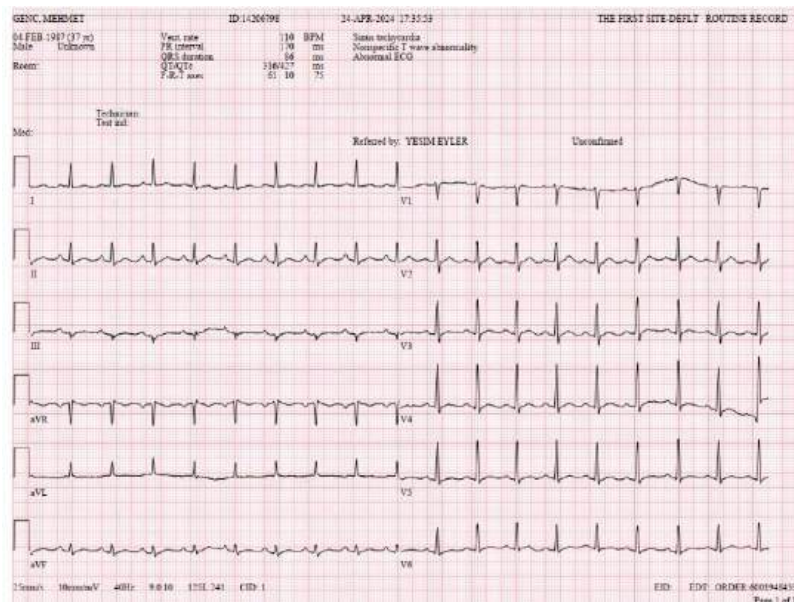
Background and aim: Hypokalaemic periodic paralysis (PP) is a rare neuromuscular disease. A defect in calcium or sodium ion channels in the muscle membrane causes low blood potassium levels. It is characterized by attacks of painless muscle weakness. Attacks are triggered by heavy exercise followed by rest, fasting or eating a carbohydrate-rich meal, stress, cold weather, alcohol consumption, or drugs included glucocorticoids. Proximal muscles are usually affected more than distal muscles, and weakness affects the legs more than the arms. Hyporeflexia or areflexia is typical. Consciousness is preserved and respiratory muscles may be slightly affected. Findings consistent with hypokalemia occur on the electrocardiogram (ECG). In patients with hypokalemic PP, the presence of a family history, hypokalemia during attacks, and response to treatment are diagnostic. With this case report, we aimed to remind the diagnosis of hypokalemic PP in cases of sudden paralysis after glucocorticoid therapy.

Case: A 37-year-old man was admitted to the emergency department (ED) with complaints of weakness in his arms and legs and inability to walk when he woke up. On arrival, he was conscious, fully oriented and cooperative, and his vital signs were normal. On physical examination, muscle strength was 2/5 in bilateral lower and upper extremities. The ECG showed atrial fibrillation with normal ventricular response, Mobitz type 2 block and QT prolongation. Upon detection of potassium (K+) 1.7 mmol/L, K+ replacement therapy was immediately started. The patient admitted to the ED with an allergic reaction last night and received glucocorticosteroid. We diagnosed hypokalaemic PP due to rapid clinical improvement with potassium replacement.

Pre-treatment ECG



Post-treatment ECG



Conclusions: This disease, which causes a serious neurological condition and electrocardiographic findings, is rarely encountered in ED. Hypokalaemic PP should be considered among the differential diagnoses in cases of sudden paralysis after glucocorticoid administration. Treatment should be started as soon as low blood potassium levels are detected.

Keywords: hypokalemic periodic paralysis, glucocorticoids, emergency department, periodic paralysis



Ref No: 7598

Pub No: S-065

CVA or TTP?

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Background and aim: Cerebrovascular accident (CVA) or stroke is defined by the World Health Organization as 'signs due to focal or global impairment of cerebral functions that develop rapidly and last for 24 hours or longer, or may result in death', and it is among the important reasons for applying to the emergency room. Symptoms indicating neurological disorders make us think that there are intracranial problems such as cerebrovascular accident. Clinical features of thrombotic thrombocytopenic purpura (TTP) vary and are often characterized by microangiopathic hemolytic anemia (MAHA), thrombocytopenia, abdominal pain, petechiae or hemorrhages. But also there might be some neurological signs in TTP. Although neurological disorders suggest intracranial findings, it should be kept in mind that TTP may rarely present with a clinic in which neurological disorders predominate.

Case: A 51-year-old female patient was brought to the emergency department with complaints of speech impairment and confusion that began 1 hour ago. In her neurological examination, GCS: 11, semi-oriented-semi-co-operated, eyes open spontaneously, motor response was localizing the pain, verbal response was meaningless moans. Other neurological examinations and other system examinations were normal. No acute pathology was detected in the brain CT, diffusion MRI and brain-carotid artery CT-angiography of the patient, for whom acute CVA was suspected. When the patient's laboratory tests were examined, thrombocytopenia, low hemoglobin, indirect predominance hyperbilirubinemia, and high LDH were detected. The patient was consulted to neurology and hematology. The patient, whose peripheral blood smear was compatible with TTP, was admitted to the hematology unit.

Conclusions: While the cause of neurological disorders encountered in the emergency department may be CVO; Aortic dissection, carotid artery dissection aneurysm, aortic stenosis, atrioventricular complete block and TTP may also occur. In patients presenting to the emergency department with neurological symptoms, caution should be exercised in terms of diagnoses other than CVO.

Keywords: CVA, TTP, Neurological symptoms

Ref No: 7600
Pub No: S-011

Thrombolytic therapy in an acute ischemic stroke patient with a history of subarachnoid hemorrhage

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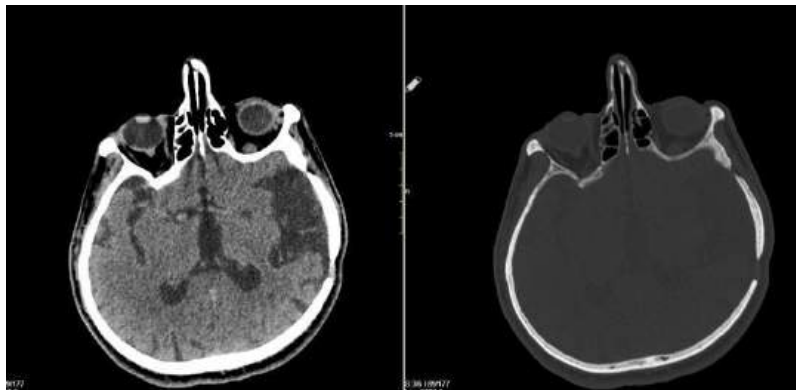
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Background and aim: Intravenous thrombolytic therapy for AIS primarily aims to prevent increased symptomatic intracerebral hemorrhage (SICH), mortality, and adverse treatment outcomes (1). In line with previous guidelines, countries have classified a history of intracranial hemorrhage as a contraindication for intravenous thrombolytic therapy in stroke management guidelines (2,3). Therefore, it was stated that intravenous thrombolysis is strictly contraindicated in patients with a history of cerebral hemorrhage, regardless of the location, amount or recovery status of the bleeding (4). In the most recent product labeling, the FDA changed this bleeding category to "new" intracranial hemorrhage, but the details of this definition were not given (5). In this case report, we describe a patient with a history of surgery for traumatic intracranial hemorrhage who did not develop bleeding complications after thrombolytic therapy for AIS.

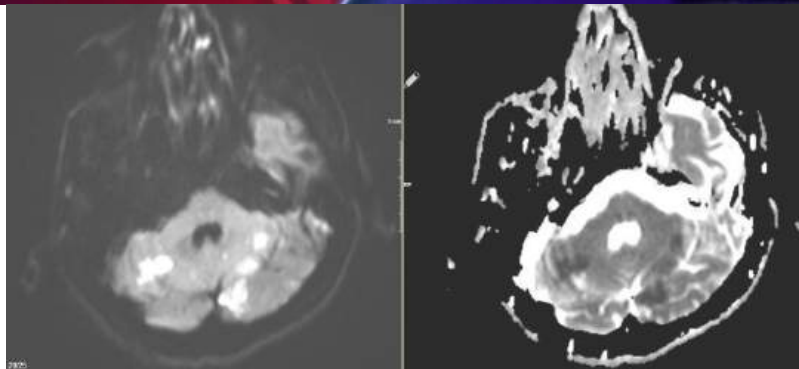
Case: A 60-year-old man presented to the outpatient emergency department with complaints of headache and dizziness that started 1 hour ago. He had a history of HT, CAD and an operation for traumatic intracranial hemorrhage about 20 years ago. Cranial CT of the hypertensive patient did not reveal any hemorrhage (Figure 1). His consciousness deteriorated and diffusion MRI revealed multiple infarcts in the posterior fossa (Figure 2). NIHSS score was 16. With informed consent, recombinant tissue plasminogen activator (rTPA) treatment was started as a 10% bolus followed by 0.9 mg/kg infusion. Thrombectomy and stenting were performed due to thrombus extending from the right vertebral artery to the basilar artery. No hemorrhage developed on neuroimaging performed during follow-up (Figure 3). The patient was discharged with mRS:2 after 2 weeks of intensive care and ward treatment.

Picyure 1



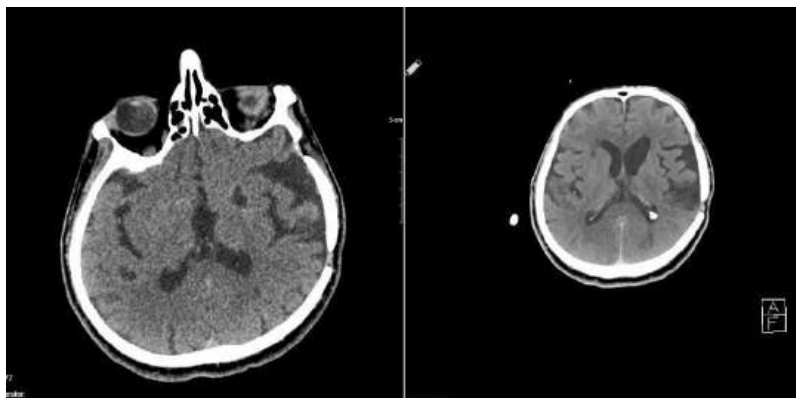
CT image. Encephalomalastic area and craniotomy defect

Picture 2



Diffusion MR image. Acute infarct areas in the posterior area

Picture 3



No hemorrhage was detected in control cranial CT scans.

Conclusions: In AIS patients with a history of ICH, IV rTPA may be beneficial in selected patients, such as those with an older history of hemorrhage and a small area of healed encephalomalacia.

Keywords: Thrombolytics, History of Subarachnoid Hemorrhage, Acute Ischemic Stroke



Ref No: 7616

Pub No: S-128

Superior mesenteric artery (SMA) syndrome

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Background and aim: Superior mesenteric artery (SMA) syndrome is a rare cause of gastrointestinal obstruction, occurring due to the total or partial compression of the third part of the duodenum between the aorta and the proximal part of the superior mesenteric artery. SMA syndrome is more commonly seen in young individuals and women. It is characterized by symptoms such as persistent vomiting and postprandial pain. In this case report, a rare instance of acute superior mesenteric artery syndrome will be presented.

Case: A 32-year-old female patient presented to the emergency department with complaints of abdominal pain and nausea. Her medical history revealed a known bowel motility dysfunction and a previous surgical intervention for ileus. On physical examination, no signs of guarding or rebound tenderness were observed, but there was diffuse tenderness in the abdomen. The patient's vital signs were stable, and she was evaluated with an upright abdominal X-ray (Figure 1). The X-ray showed air-fluid levels and bowel segments trapped beneath the diaphragm. A contrast-enhanced abdominal CT scan was performed for further evaluation, which revealed sigmoid volvulus and superior mesenteric artery compression syndrome (Figures 2-3). Oral intake was discontinued, fluid resuscitation was initiated, and a nasogastric (NG) tube was placed. The patient was transferred to the general surgery department for further treatment and surgical evaluation.

FIGURE-1



FIGURE-2

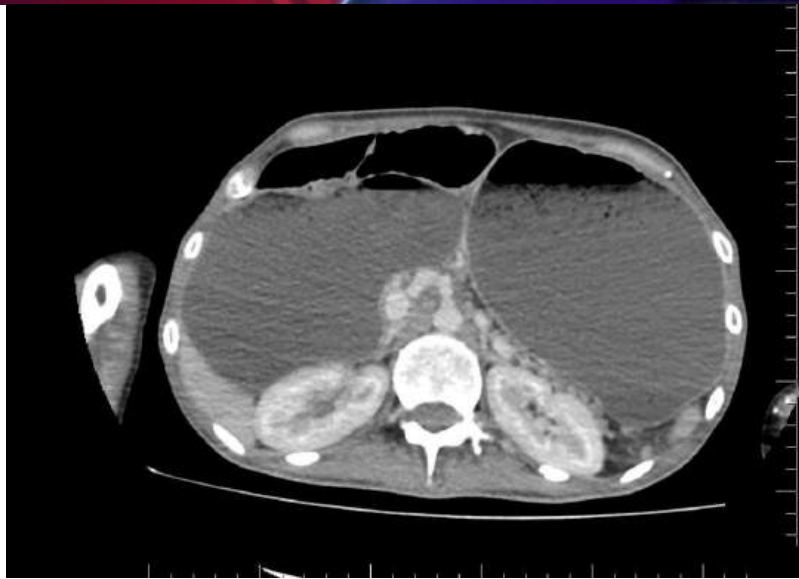


FIGURE-3



Conclusions: Superior mesenteric artery (SMA) syndrome is a rare but clinically significant condition that can lead to serious complications. Diagnosis of this syndrome is often challenging due to its nonspecific symptoms and the potential for it to be mistaken for other gastrointestinal disorders. In the treatment process, conservative approaches should be prioritized. Interventions such as discontinuation of oral intake, nasogastric decompression, and fluid-electrolyte replacement can help alleviate symptoms in many patients. However, in cases where conservative treatment is ineffective, surgical intervention may be necessary.

Keywords: Superior mesenteric artery (SMA) syndrome, Vomite, Acute abdominal pain, Wilkie syndrome

Ref No: 7650

Pub No: S-039

Pneumothorax, Pneumomediastinum, and Esophageal Rupture in a Patient Presenting with Acute Chest Pain and Dyspnea: A Rare Case

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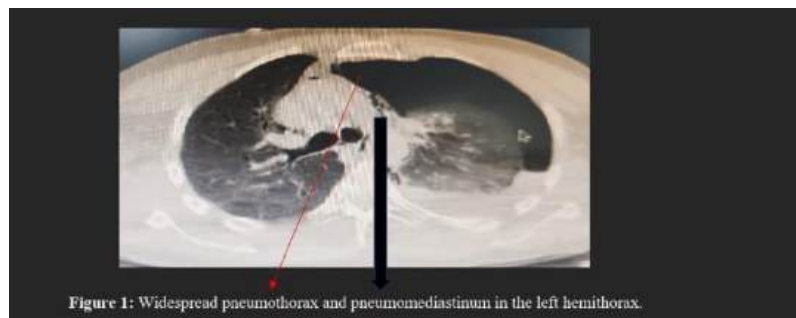
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Background and aim: Differential diagnosis is quite broad in patients presenting with acute chest pain and dyspnea occurring during eating. Early diagnosis and management of rare but serious pathologies such as pneumothorax, pneumomediastinum, and esophageal rupture are critical for reducing morbidity and mortality. This case report aims to highlight the importance of these rare combined pathologies in a patient with sudden onset symptoms while eating.

Case: A 64-year-old male patient presented to the emergency department with sudden chest pain and dyspnea while eating. The patient had no known chronic illnesses. Vital signs were as follows: blood pressure 135/80 mmHg, pulse 98 bpm, respiratory rate 22 bpm, and oxygen saturation 90%. Physical examination revealed widespread tenderness in the chest and decreased breath sounds on the right side. An emergency chest X-ray showed findings suggestive of pneumothorax. Computed tomography (CT) of the thorax revealed pneumothorax on the right side, pneumomediastinum, and esophageal rupture.

Figure 1



Widespread pneumothorax and pneumomediastinum in the left hemithorax

Figure 2

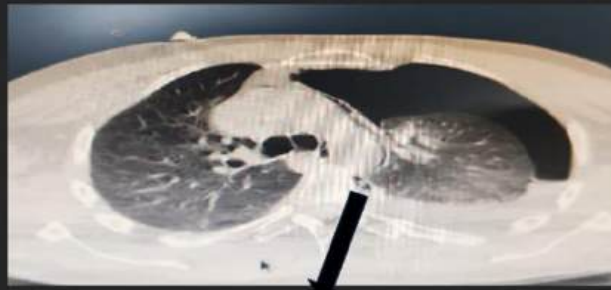


Figure 2: Perforation in the lower part of the esophagus.

Perforation in the lower part of the esophagus

Conclusions: In patients with sudden chest pain and dyspnea occurring while eating, serious pathologies such as pneumothorax, pneumomediastinum, and esophageal rupture should also be considered in the differential diagnosis. Early diagnosis and surgical intervention are crucial in the management of such cases.

Keywords: Emergency Medicine, Pneumothorax, Pneumomediastinum, Boerhaave syndrome



Ref No: 7773

Pub No: P-129

A Case Of Cervicofacial Subcutaneous Emphysema And Pneumomediastinum After Tooth Extraction

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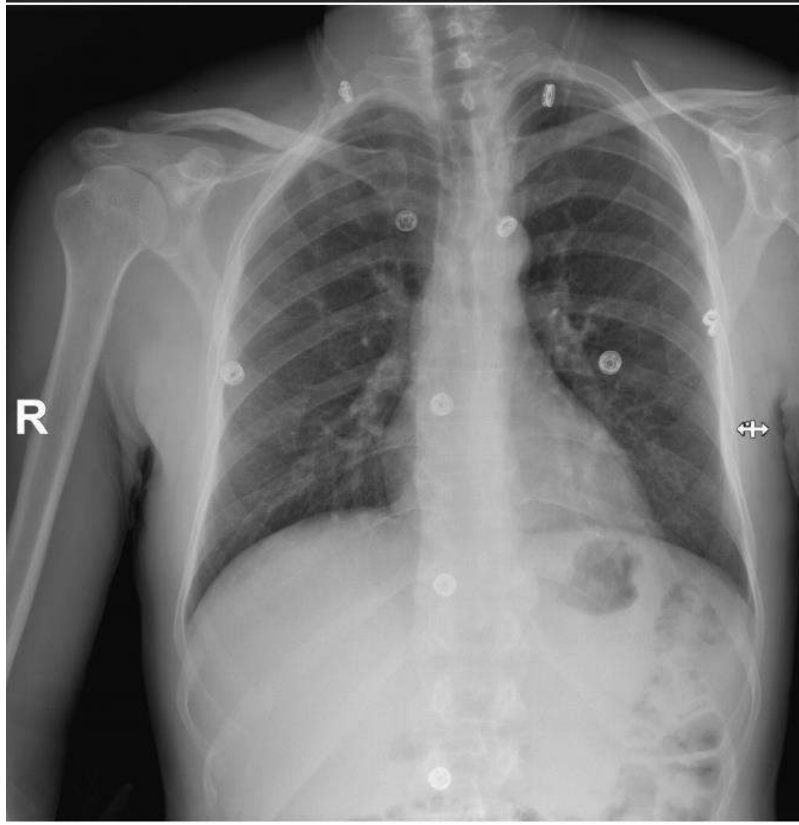
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Background and aim: The most common cause of subcutaneous emphysema is maxillofacial and thoracic trauma. However, it may also develop due to dental, oral and nasal surgical procedures. Pneumomediastinum is the presence of air in the mediastinum and may develop after trauma or surgical procedures. Subcutaneous emphysema has been shown to accompany pneumomediastinum in 70% of cases (1-2). Our aim in this presentation is to emphasize that serious complications may develop especially in patients presenting to the emergency department (ED) after dental procedures and that these complications can be prevented with early diagnosis and treatment.

Case: A 44-year-old male patient was admitted to the ED progressively increasing painful swelling on the right side of the neck after extraction of the lower right first molar two days before. Physical examination revealed tenderness with palpation from the right submandibular region to the right clavicle and diffuse crepitation in the same region. Vital signs were normal. There was no pathologic finding in blood tests. Chest radiography showed air density surrounding the heart and brain computerised tomography (CT) showed air images in the subcutaneous tissue in the premaxillary prezygomatic area on the right (Figure-1). Thorax CT showed air in the mediastinum and subcutaneous emphysema in both cervical regions (Figure-2). The patient was hospitalised and received oxygen therapy, analgesia and antibiotherapy. He was discharged after three days.

Figure 1



Line surrounding the heart on chest radiograph Shaped air density

Figure 2



Pneumomediastinum area on thorax tomography

Conclusions: The roots of molars connect to the submandibular space, retropharyngeal space and mediastinum. Therefore, especially in procedures related to molars, pressurized air may pass from the retromolar space to the pterygomandibular space and lateral pharyngeal space (3-4). It may lead to life-threatening conditions including tracheal compression, pneumopericardium, tension pneumomediastinum and mediastinitis. Pneumomediastinum and subcutaneous emphysema should be kept in mind by dentists and in case of clinical suspicion, they should be referred to the ED immediately.

Keywords: subcutaneous emphysema, pneumomediastinum, tooth, dental procedures



Ref No: 7776

Pub No: S-078

Anomic Aphasia; A Case Report

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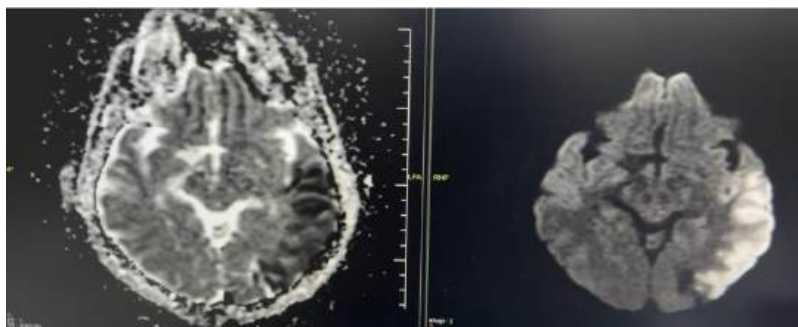
Background and aim: Aphasia, a language disorder caused by brain damage, often results from stroke and affects 21-38% of stroke patients, particularly women and older individuals. It can be classified into types based on speech fluency, with Broca's aphasia and anomic aphasia being notable examples. Anomic aphasia is characterized by fluent speech, good comprehension, and difficulty naming objects.

Case: The case presented involves a 54-year-old male who was admitted to the emergency department with a sudden speech disorder. His condition started 8 hours prior to admission, with the patient showing no significant medical history. His vital signs were stable, and neurological exams showed no deficits. The patient's speech was fluent, but he could not name familiar objects, indicating anomic aphasia. He recognized the function of objects but was unable to name them. Lab tests revealed no major abnormalities, and a brain CT scan showed evidence of acute infarction. Diffusion MRI confirmed infarction in the left temporal and parietal lobes. Due to the delay in seeking medical help, thrombolytic therapy could not be administered. The patient was admitted to intensive care for further monitoring and later discharged with prescriptions for antihypertensive and antiaggregant medications.

figure 1



figure 2



Conclusions: This case emphasizes the importance of early diagnosis and treatment of aphasia, especially in isolated aphasia cases. Early recognition and intervention, including thrombolysis when appropriate, can improve outcomes for stroke patients. Conducting thorough examinations, including naming tests, is crucial in diagnosing anomic aphasia, especially in busy emergency settings where such cases may be overlooked.

Keywords: Anomic, Aphasia, stroke, ischemic



Ref No: 7855

Pub No: S-060

Myocardial Infarction Triggered by Post-Traumatic Stress Factors

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Background and aim: Acute coronary syndromes (ACS) are the most common cause of sudden cardiac death. While ACS typically presents with radiating chest pain and shortness of breath, It may also present with atypical symptoms. None of these symptoms or findings alone can be used to diagnose ACS. Common risk factors for ACS include smoking, hypertension, diabetes, and stress. In this case report, we discuss a myocardial infarction (MI) triggered by post-traumatic stress factors in a patient who presented to the emergency department following a gunshot wound.

Case: 32-year-old male smoker with no known diseases or medications presented to the emergency department due to a gunshot wound. Entry/exit wounds located on the medial-lateral aspects of the right cruris, dorsum of the right foot, posteromedial left ankle, and distal-anterior left cruris. During follow-up, the patient described the onset of epigastric pain post-trauma. The respiratory examinations were unremarkable. Peripheral pulses were intact; there were no signs of bleeding, sensory-motor deficits. Vital signs remained stable. Laboratory tests showed elevated acute-phase-reactants, and computed-tomography-angiography(CTA) revealed a filling defect in the right-anterior-tibial artery. Orthopedic and cardiovascular consultations determined that urgent intervention was unnecessary, recommending outpatient follow-up. Later, the patient developed epigastric pain, and an electrocardiogram showed inferolateral-ST-segment-elevation. The cardiology department was consulted, and the patient was admitted to the coronary intensive care unit for coronary angiography.

Conclusions: Stress is a risk factor for MI, also known as coronary-artery-disease (CAD). In the early phase of trauma increased release of stress hormones and cytokines plays a critical role in the body's reaction. These reactions increase heart rate, cause vasoconstriction of blood vessels, leading to elevated blood pressure, and promote the development of hypertension, which contributes to the formation of atherosclerosis, a known cause of CAD. In patients with pre-existing atherosclerosis, these stress-induced responses further increase the myocardial oxygen demand and the risk of MI.

Keywords: Post-Trauma, myocardial infarction, stress



Ref No: 7877

Pub No: S-055

Isolated Laryngeal Edema After Blunt Neck Trauma

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Background and aim: Although laryngotracheal injuries are rare, they have a high mortality rate. [1]. Penetrating neck injuries account for 5% to 10% of all trauma cases and are usually fatal.[2] It should be remembered that blunt trauma is rarely an isolated injury and associated injuries should always be identified. [3] Blunt laryngeal injuries are commonly caused by motor vehicle accidents and sports injuries. Due to the slow progression of airway edema in laryngotracheal trauma, airway obstruction may not occur for several hours after injury. Therefore, patients with blunt neck trauma should be closely monitored. [2]

Case: A 45-year-old male patient was brought to our emergency department due to a motor vehicle accident. He was traveling at an average speed of 80 km/h and was dragged for a few meters. There were complaints of hoarseness, dysphagia, and dyspnea, which were reported to have developed after the accident. No crepitation or subcutaneous hematoma was noted on palpation of the neck. Oxygen saturation was 99%. Anteroposterior (PA) chest radiography (Figure 1) showed no pneumothorax or pneumomediastinum. Contrast-enhanced neck imaging (Figure 2) showed laryngeal edema causing asymmetry at the level of the glottis. The patient was evaluated in the otolaryngology clinic with a flexible laryngoscope (Figure 5) at the patient's head. She was admitted to the otolaryngology clinic for follow-up

figure 1

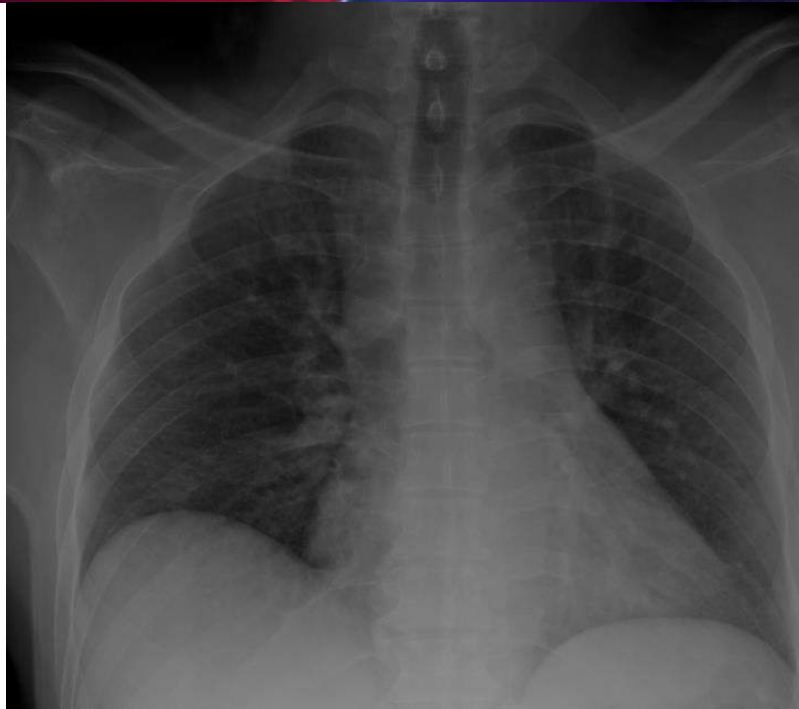


figure 2



figure 3



Conclusions: Although rare, tracheal injury should not be overlooked. Failure to recognize a potential trauma can lead to mortality, and unconscious or careless manipulations such as endotracheal intubation can make a simple injury much more complex and difficult to treat (4).

Keywords: Blunt neck trauma, isolated laryngeal edema, laryngeal injury



Ref No: 7880

Pub No: S-037

A Case of Allergy with Severe Course: Stevens-Johnson Syndrome After Novalgin Intake

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Background and aim: Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are rare but severe mucocutaneous disorders characterized by widespread epidermal necrosis. They are often caused by drugs, infections, or malignancies. While SJS involves less than 10% of total body surface area, it can lead to life-threatening complications such as respiratory failure, dehydration, and secondary infections. This case report highlights a patient who developed SJS after taking Novalgin for cold symptoms.

Case: A 62-year-old male presented to an external center with swelling of both lips and difficulty breathing after taking Novalgin for two days. He was initially diagnosed with angioedema and anaphylactic shock, treated with IM adrenaline and IV hydration. The patient had a history of similar symptoms 30 years ago following flu treatment but could not recall the specific medication. Upon admission to the ICU, he was given methylprednisolone, which reduced his laryngeal edema, but widespread erythematous maculopapular rashes appeared. His condition worsened after one day of ciprofloxacin, which was stopped, and azithromycin was administered. After two days of ICU monitoring with steroid therapy, the patient was transferred to our hospital for further care. On examination, he had widespread erythematous rashes with oral, genital, and conjunctival involvement. The patient was stabilized and discharged after treatment, with recommendations for allergy testing for Novalgin and ciprofloxacin.

Figure 1: Skin eruptions in a case of Stevens-Johnson Syndrome



Conclusions: SJS and TEN, though rare, have significant mortality rates and complications. Early diagnosis and prompt discontinuation of the offending drug are crucial for a positive outcome. This case emphasizes the importance of detailed medical history, especially in patients with prior episodes of drug reactions. Management includes supportive care, corticosteroids, and wound care. Education on drug avoidance is essential to prevent recurrence.

Keywords: Stevens-Johnson syndrome, Toxic epidermal necrolysis (TEN), Nikolsky sign, Novalgine



Ref No: 7901

Pub No: S-035

History of Aortic Dissection With SVO Appearance

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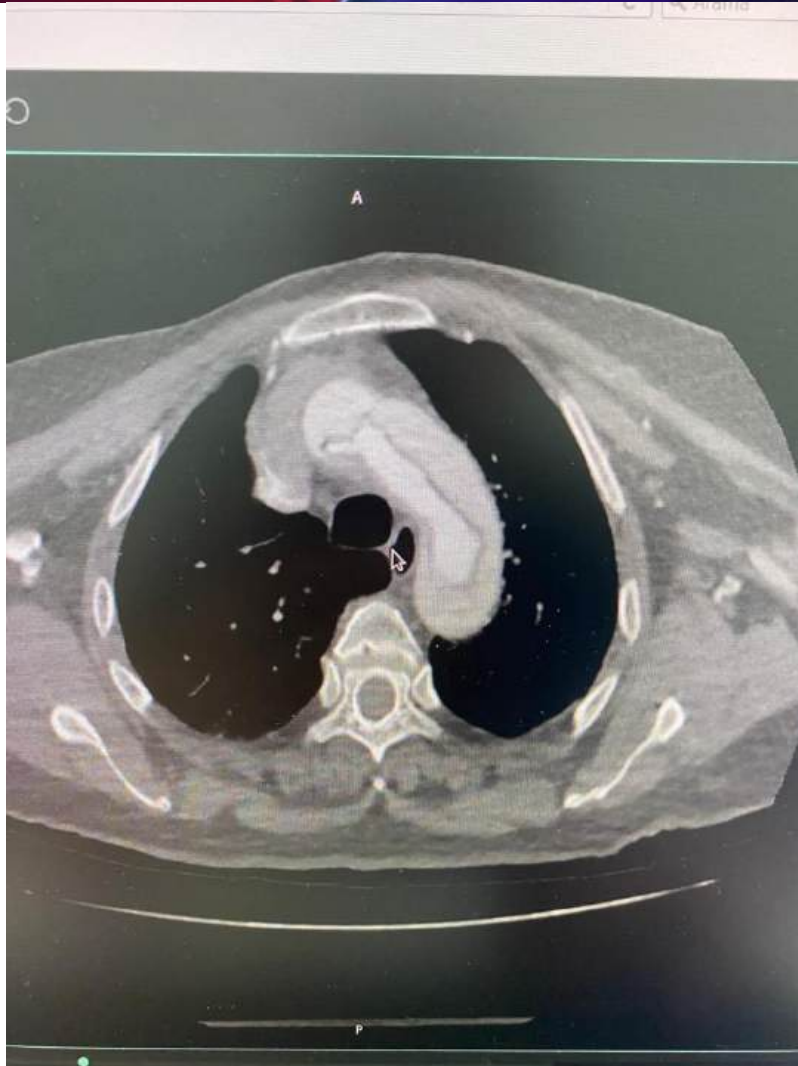
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Background and aim: Aortic dissection (AD) is a vascular disease that is difficult to diagnose and has a very high in-hospital mortality rate (12-27%) even when diagnosed. Although the prevalence is 3/100000, most patients die before reaching the health institution because it is a disease with serious mortality. In those who reach the hospital, the mortality risk increases with each passing minute. The aim of this study was to demonstrate that aortic dissection is present in approximately 1% of patients with neurologic symptoms and suspected LVO.-

Case: Case: A 79-year-old woman was admitted to the emergency department with complaints of dizziness, chest pain, weakness and inability to walk, which started 5 hours ago. She had a history of hypertension and coronary artery disease. Blood pressure measured at the time of presentation was 114/65, ECG was normal sinus rhythm, revealed consciousness, oriented, cooperative, pupils isochoric, speech natural, muscle strength: left upper and lower extremity muscle strength was 4/5 (image 1).

İMAGE 1



Conclusions: Discussion: Aortic dissection is a rare disease with high morbidity and mortality. The most common complaint at presentation in aortic dissection is chest pain with 80%, followed by back pain with 40% and abdominal pain with 25%. The pain usually has a sudden onset (typical) and is described as stabbing (knife stabbing), tearing or ripping. Patients with Type A aortic dissection complain mostly of chest pain, while those with Type B dissection complain mostly of back and abdominal pain. In addition to these typical complaints, atypical complaints (acute aortic regurgitation, perfusion impairment, absence of peripheral pulses, various neurological disorders, end organ ischemia, syncope, hypovolemic shock, cardiac tamponade, and various cardiovascular, neurological, and gastrointestinal presentations) have also been reported. In our patient, aortic dissection, which is very rare in patients presenting with neurological symptoms, was detected.

Keywords: Aortic Dissection, Cerebrovascular stroke

Ref No: 7911

Pub No: S-126

Central cord syndrome secondary to trauma

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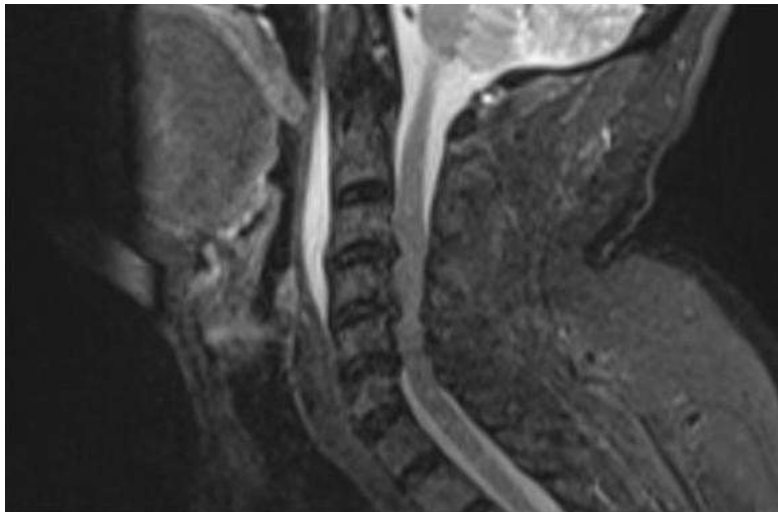
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Background and aim: Central Cord Syndrome (CCS) is a common outcome of traumatic spinal cord injuries, primarily affecting the cervical spine. CCS is characterized by severe motor deficits in the upper extremities compared to the lower extremities, along with varying degrees of sensory loss below the injury level and bladder dysfunction. This case study examines a 58-year-old male who fell from the first floor into an elevator shaft at his workplace. The aim is to highlight the diagnostic process and the significance of early intervention in CCS management.

Case: On arrival at the emergency room, the patient was conscious, oriented, and cooperative, with a Glasgow Coma Scale (GCS) score of 15 and stable vital signs. He reported weakness and pain in his extremities, particularly in the lower limbs. Physical examination showed muscle strength of 4/5 in all limbs and no pathological reflexes. Initial CT scans did not reveal urgent abnormalities. As symptoms progressed, including urinary incontinence and worsening muscle strength, a comprehensive spinal MRI was performed. The MRI confirmed Central Cord Syndrome, likely due to trauma and exacerbated by a pre-existing narrowed cervical canal. This case underscores the importance of MRI in diagnosing CCS, especially in detecting injuries not visible on CT scans, such as Spinal Cord Injury Without Radiographic Abnormalities (SCIWORA). While SCIWORA is more common in children, it can also occur in adults after significant trauma.

In our case, the obvious spinal canal stenosis



spinal canal stenosis



Conclusions: The patient was referred for emergency decompression surgery by a Brain and Nerve Surgery specialist. Early diagnosis and prompt surgical intervention are crucial for improving outcomes in CCS cases. This case emphasizes the need for detailed imaging and thorough neurological evaluation for accurate diagnosis and effective treatment.

Keywords: trauma, spinal cord injury, central cord syndrome, SCIWORA, cervical spinal cord injury



Ref No: 7919
Pub No: S-121

HEADACHE THAT WON'T GO AWAY: VIRAL ENCEPHALITIS

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Background and aim: Encephalitis is a clinical picture of inflammation of the brain parenchymal tissue leading to neurological dysfunction. When approaching a patient with encephalitis, clarification of the etiology in line with clinical and laboratory tests plays an important role in determining treatment. Although there is no definitive treatment, it is important in terms of prognosis and prophylaxis. In this case, we aim to present the diagnosis approaches of a patient with viral encephalitis after presentation to the emergency department.

Case: A 22-year-old female patient presented to our emergency with nausea, vomiting, severe headache for 1 month. She treated with amoxicillin clavulanic acid for sinusitis 1 month ago. Her symptoms increased especially in the last 1 week. The patient slept normally, could not be woken up by his relatives and brought to the emergency. On examination, the patient agitated, eyes spontaneously closed, no verbal response, and did not obey orders. BP 111/53 mmHg, pulse 100/min, temperature 36.6°C and saturation 100%. No pathology detected in blood tests. Brain CT, diffusion MRI, non-contrast cranial MRI clear. CSF examination revealed IgG 8.50 mg/dl, albumin 55.3 mg/dl, CSF glucose 75 mg/dl, CSF protein 837 mg/L. The patient interned to neurology intensive care unit with a prediagnosis of viral encephalitis.

Conclusions: Encephalitis is the presence of clinical and laboratory evidence of neurologic dysfunction associated with inflammation of the brain parenchyma. When approaching a patient with encephalitis, efforts should be made to establish the etiologic diagnosis. Although there is no definitive treatment, except for HSV encephalitis, identification of the specific agent may be important for potential prophylaxis, prognosis and public health measures. Epidemiologic clues and various clinical clues may be useful in guiding investigations for etiologic diagnosis. CSF examination is required in all patients with encephalitis (unless contraindicated). MRI is the most useful neuroimaging test to evaluate the patient with encephalitis.

Keywords: Viral Encephalitis, MRI, CSF

Ref No: 7921

Pub No: S-043

The injury after falling an object on a body: PARAPLEGIA

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Background and aim: Trauma is ranked first among the causes of the deaths that occurred between 1 - 44 years of age. Injuries after trauma is one of the most common causes of emergency department visits. The injury after falling an object on a body is rare.

Case: Taking attention to the patient had seriously injured after falling an ice floe on her body from a roof, that kind of injury is common in our region, and so she had became paraplegic. CASE: A 20-year-old female patient was injured and brought to emergency department by an ambulance after falling an ice floe on her body. She was conscious, cooperative and oriented. She had an abraded area on her right back, shortness of breath, decreased sounds on the right lung, tenderness of the abdomen, loss of sensation below T6 vertebra, motor and sensory loss in the lower extremities and urinary - fecal incontinence. Thorax CT images showed 4 cm pleural effusion and 1 cm pneumothorax cavity in the right lung, displaced fractures on the posterior of right 5, 6, 7 and 8. ribs (Figure 1), fractures on the spinous processes of T1, T2, T3, T4, T5 and T6 vertebrae, fractures on corpuses of T5, T6 and T7 vertebrae and totally retrolisthesis at the level of T5 vertebrae. Thoracolumbar MR images also showed totally retrolisthesis on the corpus of T5 vertebrae and a cut in the spinal cord (Figure 2).

Pneumothorax and hemothorax in the right lung B: Fracture on corpus of T6 vertebrae and rib fracture



Totally retrolisthesis on the fractured corpus of T5 vertebrae and a cut in the spinal cord



Conclusions: It should be revised the architecture of the roofs to prevent these types of accidents.

Keywords: Paraplegia, cut in the spinal cord, falling an object on a body

Ref No: 8056

Pub No: S-087

Splenic abscess rupture

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Background and aim: Splenic abscess is an infrequent but potentially life-threatening disease. It could give rise to some fairly common complications such as left-sided pleural effusion and splenomegaly but limited to very few case reports, splenic abscess could rupture and lead to pneumoperitoneum which subsequently cause peritonitis and acute abdomen. This extremely rare condition primarily manifests in immunocompromised settings, whereby a patient exhibiting characteristic signs of splenic abscesses, such as left upper quadrant pain and fever, then has generalized abdomen pain and tenderness after an interval of inadequate therapeutic intervention.

Case: A 62-year-old male patient presented to the hospital with diffuse abdominal tenderness and fever. Upon questioning, it was learned that he had gone to an external facility the day before due to confusion. His initial tests showed a minimal elevation in acute phase reactants (APR), and neurological imaging was performed without finding an acute central pathology. He was discharged on broad-spectrum antibiotics. On presentation to our facility, follow-up tests showed an increase in APR levels compared to the previous day (13.500 WBC, 12.2900 Neutrophils, 378 CRP). Due to newly developed complaints, abdominal imaging was performed, revealing a ruptured splenic abscess. General surgery was consulted, and the patient was taken for emergency surgery.

The Abdominal CT





The abdominal CT scan shows a splenic abscess and its rupture.

Conclusions: A splenic abscess is a rare and potentially fatal condition, with approximately 600 documented cases, and spontaneous rupture is an even more uncommon occurrence (Splenectomy for splenic abscess. Surg Infect [PubMed]). Rupture of a splenic abscess caused by gas-forming organisms can result in pneumoperitoneum, resembling perforation peritonitis of a hollow organ. A ruptured splenic abscess should be considered as a differential diagnosis in cases of pneumoperitoneum or peritonitis, particularly in immunocompromised individuals. Splenectomy is the definitive treatment for a ruptured splenic abscess when other interventions are unsuccessful.

Keywords: pneumoperitoneum, acute abdomen, peritonitis

Ref No: 8112

Pub No: S-096

Case Report: Subclavian Artery Thrombosis: An Overlooked Cause of Arm Pain and Neurological Symptoms

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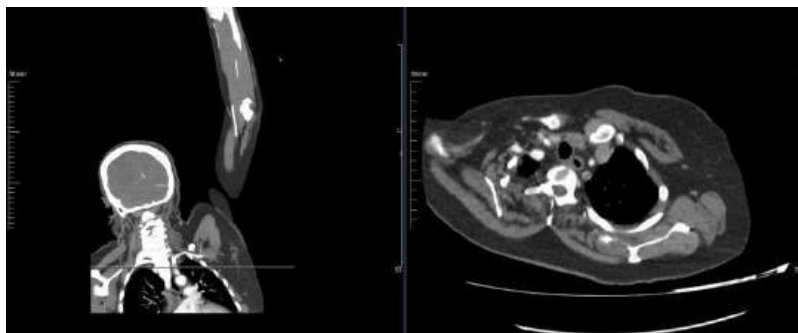
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Background and aim: Blood supply of upper extremities come from subclavian arteries which arise from the innominate artery on the right and the aorta on the left. The incidence of subclavian thrombosis is generally around 3-4% in the population. The most common cause of arterial thrombosis is atherosclerosis. Conditions such as diabetes mellitus, hypertension and hypercholesterolemia predispose to atherosclerosis. In this case, we presented a patient who applied to the emergency department due to severe pain in her left arm.

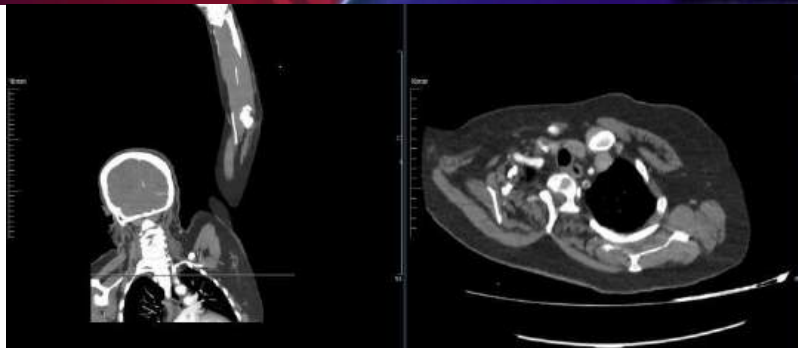
Case: 51 years old female patient presented to the emergency room with three days of ongoing pain in her left forearm and hand. She had a history of type 2 diabetes and CAD. On physical exam, patient's left hand was cold with the purplish discoloration of the forth and fifth digits. Radial and brachial pulses were absent. On neurological examination, there were no motor or sensory deficit but the left hand movements induced pain. Laboratory investigation revealed neutrophilic leukocytosis and slightly elevated CRP level. Coagulation panel was within normal range. Electrocardiogram did not show atrial fibrillation or any abnormalities. Left upper extremity angiogram was performed, which revealed the occlusion of the left subclavian artery. Distal blood flow was normal with no defects of contrast filling. Patient was taken to the operation room and brachial embolectomy was performed. The patient was admitted to ICU and discharged 2 days later with no complications.

Subclavian artery thrombosis



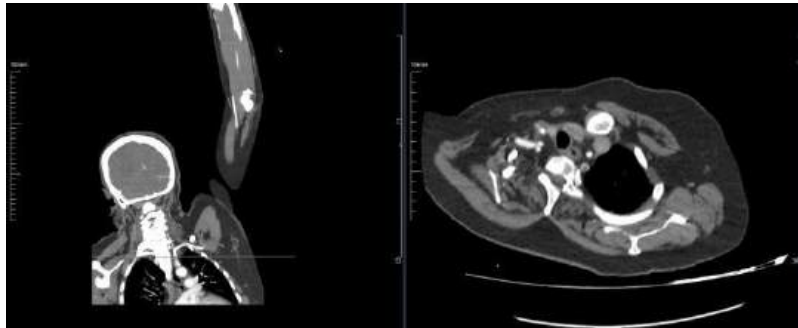
Sagittal and axial images on CT angiogram

Subclavian artery thrombosis



Sagital and axial images on CT angiogram

Subclavian artery thrombosis



Sagital and axial images on CT angiogram

Conclusions: Patients presenting to the emergency department with non-specific symptoms such as arm and shoulder pain, weakness, dizziness, ataxia, and nausea should have ****subclavian artery thrombosis**** included in the differential diagnosis. This is particularly important in individuals with comorbidities and poor adherence to treatment. It's crucial to remember that many cases secondary to atherosclerosis can be asymptomatic, making a vascular evaluation an important part of the physical examination.

Keywords: atherosclerosis, Subclavian artery, thrombosis, emergency department



Ref No: 8157

Pub No: S-109

A Rare Diagnosis in Scrotal Pain: Testicular Fracture

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Background and aim: Scrotum and testicular trauma are rare injuries among traumas presenting to the emergency department. . The majority of cases are caused by blunt traumatic mechanisms; up to 85% are reported in the literature. Common causes include motorcycle-related traffic accidents, industrial accidents involving heavy machinery and contact sports. Testicular fracture refers to a break or disruption of continuity in the normal testicular parenchyma. A testicular fracture is defined on ultrasonography as a linear hypoechoic and avascular area within the testis.

Case: A 24-year-old male patient with no known comorbidities presented following a traffic accident. The patient reported pain solely in the testicular region, with no symptoms of dysuria or hematuria. Physical examination revealed a soft abdomen with no rebound tenderness or guarding, and negative costovertebral angle tenderness. On examination of the urinary system, there was tenderness in both testicles, with pain increasing upon elevation, but the cremasteric reflex was normal in both testicles. Laboratory tests performed upon admission were within normal ranges. Ultrasound of the testes revealed: "Localized areas of slightly hypoechoic tissue with unclear boundaries in the bilateral testicular parenchyma. Irregularity noted in the lower pole of the right testis, approximately 8 mm in size (testicular fracture?)." After a 3-day follow-up in the urology department, the patient was discharged with a recommendation for outpatient follow-up. Subsequent evaluations showed no pathology in the testis or scrotal tissues.

Conclusions: Testicular fracture is not one of the diagnoses that comes to mind very often in emergency services. It is one of the diagnoses that should be kept in mind especially in patients presenting with trauma and young patients with testicular pain.

Keywords: scrotal pain, testicular fracture



Ref No: 8161

Pub No: S-125

A hypocalcemia patient presenting to the emergency department with near syncope

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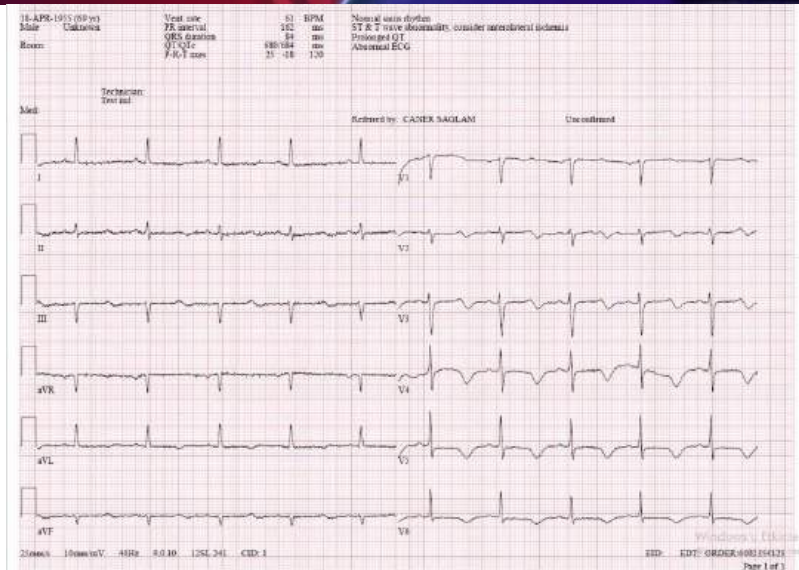
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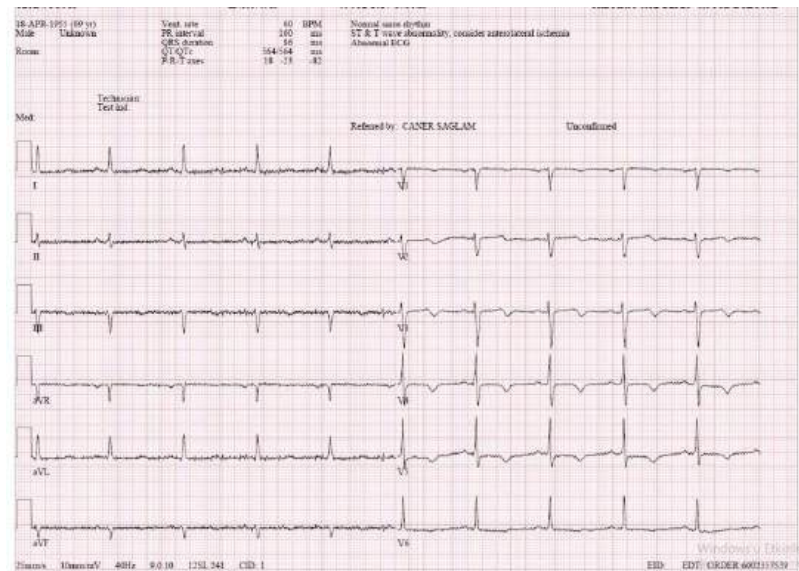
Background and aim: Long QT syndrome is a condition characterized by a defect in myocardial repolarization and a prolonged QT interval on the electrocardiogram ECG. Long QT syndrome is a heterogeneous syndrome that may be congenital or acquired, the latter being more common. It is defined as a prolonged corrected QT interval in the ECG with values greater than 470 ms in men and 480 ms in women. It increases the risk of polymorphic VT and torsades de pointes, a life-threatening cardiac arrhythmia. It is most commonly seen in electrolyte abnormalities, bradyarrhythmias, and coronary artery disease, including drug-induced abnormalities.

Case: 69 years old male patient, known hypertension history. He uses drugs containing candesartan and benidipine hydrochloride. He was brought to the emergency department by 112 teams with near syncope. Admission vitals pulse: 60/min, arterial blood pressure: 146/67 mmHg, saturation: 98%. The patient, who first described dizziness and sweating and then near syncope in the history, did not lose consciousness, no seizures were described, and there was no chestpain. In the physical examination, GCS: 15, conscious, oriented-cooperative, no motor and sensory deficits. Respiratory, cardiovascular and other system examinations were normal. In the patient's 12-lead ECG, it was observed that the QT interval was prolonged and QTc: 684 ms. V2-V3 biphasic T and V4-6 T negativity was evaluated. In the laboratory studies, no abnormality was found other than hypocalcemia. Measured calcium value Ca: 5.2 mg/dL (reference value range: 8.4 mg/dL -10.2 mg/dL). Injection solution containing calcium gluconate and calcium levulinate dihydrate was used in the treatment. It was observed in the subsequent ECG that QT prolongation and QTc interval returned to normal values.

ECG of the patient before treatment



ECG of the patient after treatment



Conclusions: Although hypocalcemia can sometimes be overlooked among the causes of QT prolongation, it should definitely be considered in emergency room evaluations.

Keywords: hypocalcemia, near syncope, emergency department



Ref No: 8212

Pub No: S-093

A Rare Dermatological Emergency: Acute Generalized Exanthematous Pustulosis(AGEP)

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Background and aim: Acute generalized exanthematous pustulosis (AGEP) is a rare, sudden-onset rash characterized by numerous small, non-follicular, sterile, and superficial pustules on erythematous and edematous skin. Mucosal and internal organ involvement is minimal or absent. Fever and leukocytosis are typically present. AGEP is drug-induced, most commonly caused by antibiotics, antifungals, calcium channel blocker diltiazem, and antimalarials. The rash typically appears within hours or days of drug exposure and resolves spontaneously within one to two weeks after discontinuing the drug.

Case: Our patient is a 61-year-old male with known conditions of COPD, hypertension, coronary artery disease and coronary artery graft. He uses multiple medications. Additionally, he has recently used cefpodoxime. His diltiazem dose had been increased within the last month. The patient initially presented to an external center with itchy and rashy lesions on his body. These lesions were particularly concentrated on the chest, forearms, abdomen, back, and genital area. His general condition was moderate to poor, with widespread erythematous rash over the entire body. There was no involvement of the oral or body mucosa. His vital signs were normal. Physical examination; quiet breath sounds in the lungs, other systems were normal and GCS of 14, with a slight tendency to drowsiness. Laboratory tests revealed elevated acute phase reactants: CRP 227 mg/L, procalcitonin 0.21 ng/mL, troponin 106 ng/L, WBC 33,000/ μ L, neutrophils 25,000/ μ L. Chest X-ray revealed scattered opacities. During follow-up, the patient experienced desaturation and was started on non-invasive mechanical ventilation (NIMV), which he could not tolerate, leading to elective intubation. The patient was admitted to the ICU. Unfortunately, during ICU follow-up, the patient suffered cardiac arrest and, despite resuscitation efforts, passed away.

AGEP



AGEP 2



AGEP 3



Conclusions: AGEP is a rare and difficult-to-recognize condition in the emergency department. Diagnosis is made through the correlation of clinical and pathological findings. Improvement following the discontinuation of the suspected treatment also supports the diagnosis. Therefore, obtaining a detailed patient history is crucial for both diagnosis and treatment planning.

Keywords: AGEP, Dermatological Emergency, Pustulosis



Ref No: 8320

Pub No: S-083

Subdural Hematoma Following Spinal Anesthesia for Caesarean Section Case

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Background and aim: Spinal anesthesia is a widely utilized and safe method for cesarean deliveries, offering benefits such as a lower incidence of postoperative complications compared to general anesthesia and reduced length of hospital stay. The predominant complication associated with spinal anesthesia is headache, which typically emerges 24-48 hours following dural puncture. These headaches often vary in location and usually resolve within five days. Although cerebral subdural hematoma following lumbar puncture is extremely rare, with an estimated incidence of approximately 1 in 500,000, it represents a potentially life-threatening condition. Early detection and management of this rare complication are crucial.

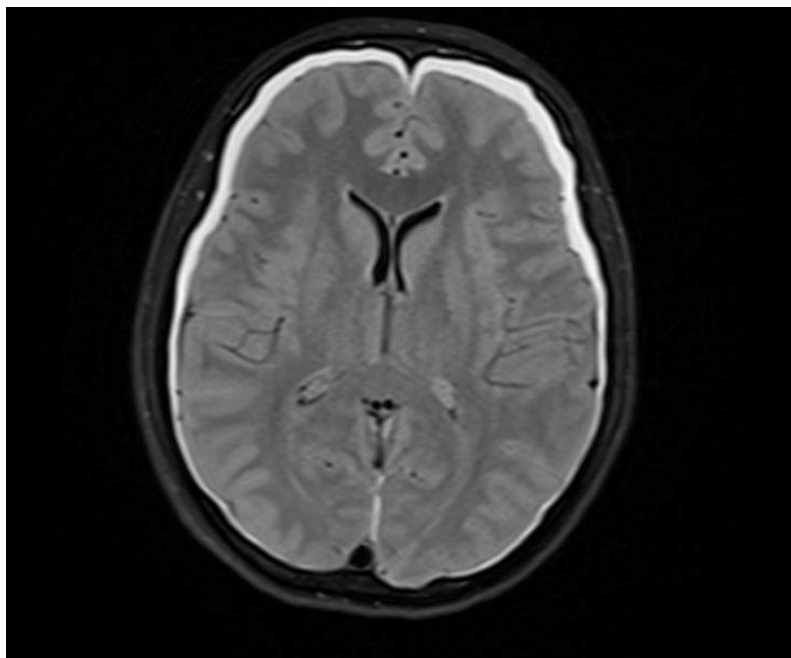
Case: A 21-year-old woman presented with a headache was admitted to our emergency department. 10 days ago, the patient received spinal anesthesia for a cesarean section. The headache was continuous after the operation and alleviated by lying and exacerbated by standing and hasn't responded to analgesics and caffeine. There were no head injuries throughout this time. No known medical history and substance abuse. The patient was conscious, oriented during medical examination. There were no meningeal irritation findings and rest of the other examinations including neurological examination were normal. Vital signs were within normal range and laboratory tests were insignificant. Non-contrast brain computed tomography scan was performed and it was consistent with subdural hemorrhage in the bifrontotemporoparietal region measuring 5.82mm in the thickest part without midline shift. Patient was consulted to neurosurgeons and magnetic resonance imaging of the brain with contrast was conducted and clarified subdural hemorrhage. Patient has been managed conservatively.

Figure 1



Subdural Hematoma on Noncontrast Computed Tomography

Figure 2



Subdural Hematoma on Magnetic Resonance Imaging with Contrast



Conclusions: Headaches are highly common following spinal anesthesia in the postpartum period. After spinal anesthesia, it is important to include intracranial subdural hematoma in the differential diagnosis, especially when the headache is unresponsive to positional changes and persists longer than typically anticipated.

Keywords: spinal anesthesia, subdural hematoma, emergency medicine, headache



Ref No: 8363

Pub No: S-045

Case Report Of Traumatic Aortic Dissection After A Traffic Accident

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Background and aim: Thoracic injuries are the second most common cause of death in trauma patients, following intracranial hemorrhages. Blunt thoracic aortic injuries are severe and associated with high mortality rates. Most of these injuries occur as a result of motor vehicle accidents and falls. In this study, we present a case of traumatic aortic dissection following a motor vehicle accident.

Case: A 40-year-old male patient was admitted to the emergency department following a motor vehicle accident. The patient was found to have been wearing a seatbelt at the time of the accident. He had no prior medical history, but his general condition was poor, with a Glasgow Coma Scale (GCS) score of 7, and his pupils were isocoric. The patient was intubated and placed on monitoring. His blood pressure was 111/78 mmHg, heart rate 121 beats per minute, and oxygen saturation 99%. Breath sounds were normal, and no jugular venous distension was observed. Abdominal examination revealed ecchymosis in the mid-upper quadrant. Focused Assessment with Sonography for Trauma (FAST) was evaluated as normal. Contrast-enhanced thoracic and abdominal computed tomography (CT) scans performed for secondary evaluation revealed linear hypodense areas within the lumen distal to the aortic arch and a hematoma surrounding the thoracic aorta in the mediastinum (Figure 1, 2). The patient was diagnosed with traumatic aortic dissection. He was administered appropriate analgesia, antibiotics, and tetanus prophylaxis. After achieving rhythm and blood pressure control, the patient was transferred to cardiovascular surgery for surgical repair.

Figure 1

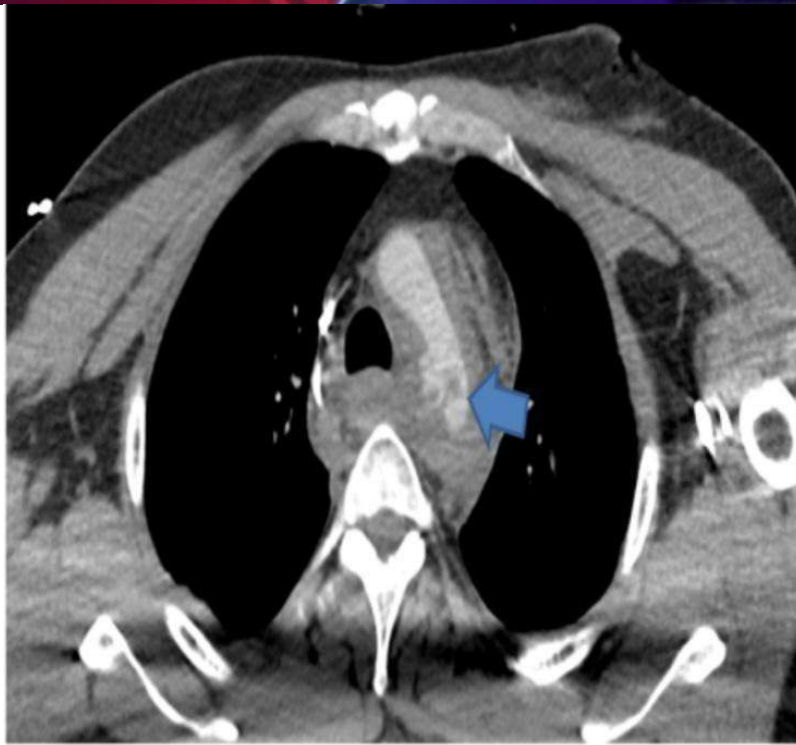
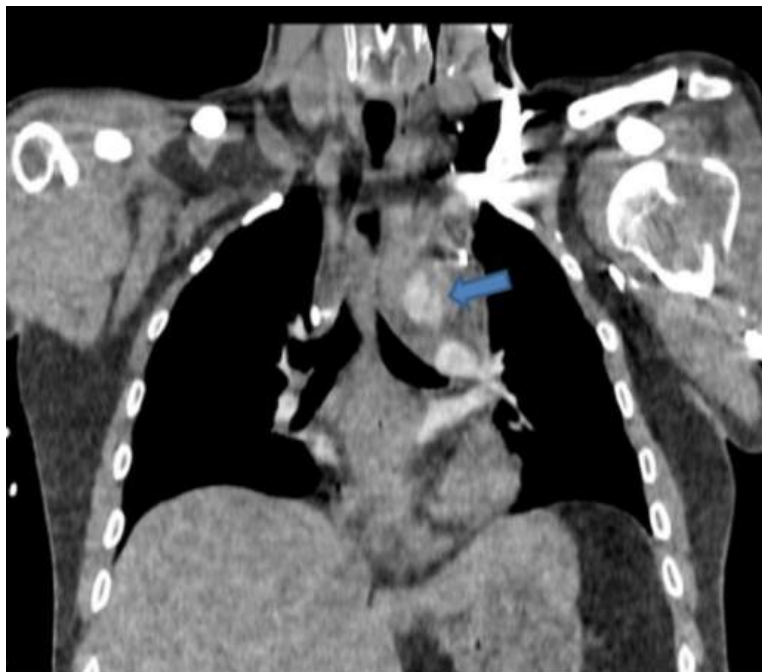


Figure 2





Conclusions: Traumatic aortic dissection is a rare but serious condition that increases both morbidity and mortality. Blunt trauma, particularly in motor vehicle accidents, can increase the risk of aortic dissection due to mechanisms such as seatbelt or steering wheel impact. Early interventions, including avoiding hypertension, controlling heart rhythm, providing appropriate analgesia, and securing the airway, are crucial in improving survival.

Keywords: Traumatic Aortic Dissection, Traffic Accident, Blunt Trauma

Ref No: 8457

Pub No: S-012

A Rare Presentation of Abducens Nerve Palsy in Herpes Zoster Ophthalmicus

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Background and aim: Varicella-zoster virus (VZV) reactivation, commonly presenting as herpes zoster, is a prevalent condition in older adults, with an incidence of approximately 3-5 cases per 1,000 person-years in the general population, increasing with age. In emergency medicine, herpes zoster ophthalmicus (HZO) is a significant concern due to its potential to cause severe ocular complications, most often through the involvement of the trigeminal nerve's ophthalmic branch. However, the rare presentation of sixth cranial nerve (n. abducens) palsy, as observed in this case, serves as a red flag, necessitating prompt recognition and management. This report aims to underscore the importance of considering cranial nerve involvement beyond the commonly affected regions in patients with VZV, particularly in those with predisposing conditions such as diabetes, hyperlipidemia, and hypertension.

Case: An 80-year-old female with a medical history of diabetes and hypertension presented to the ED with new-onset blurred and double vision in her left eye, two weeks after being discharged following hospitalization for varicella-zoster infection. On examination, the patient was alert, cooperative, and oriented. Neurological evaluation revealed ptosis of the left eye, absence of light reflex, and restricted lateral gaze, indicative of left-sided sixth cranial nerve palsy. No other neurological deficits were noted. Given the patient's history and the rare presentation of n. abducens involvement in the context of VZV, intravenous antiviral therapy alongside corticosteroids was promptly initiated to prevent further progression and potential complications.

Photo 1



Conclusions: This case highlights the critical role of emergency physicians in identifying atypical manifestations of VZV reactivation. The rare presentation of abducens nerve palsy in the context of HZO should prompt immediate investigation and treatment, especially in patients with underlying comorbidities that may predispose them to such complications. Early



intervention is crucial in preventing lasting neurological damage and improving patient outcomes in this vulnerable population.

Keywords: Abducens nerve palsy, Herpes zoster ophthalmicus, Red flag



Ref No: 8476

Pub No: S-063

Acute Presentation of Facial Redness and Dyspnea in a 58-Year-Old Female with Newly Diagnosed Acute Cancer and Superior Vena Cava Syndrome

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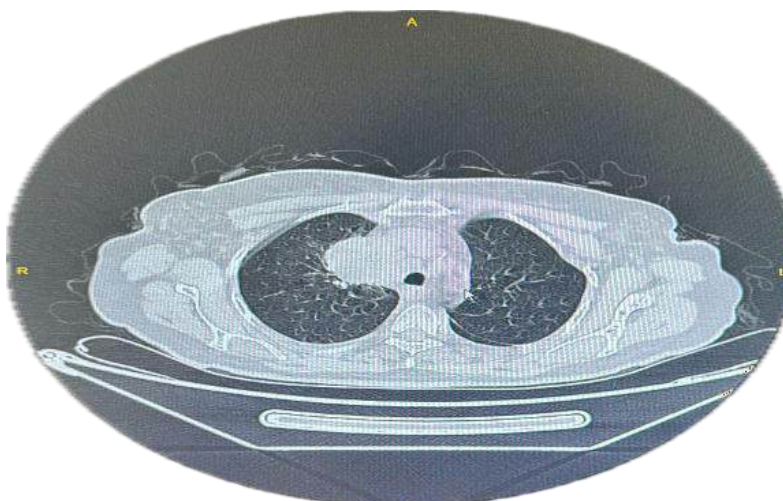
Background and aim: Superior vena cava syndrome (SVCS) is a clinical condition resulting from obstruction of blood flow through the superior vena cava, which can lead to a range of symptoms including facial swelling and dyspnea. This syndrome is often associated with malignancies such as lung cancer. This case report presents the acute presentation of a 58-year-old female with facial redness and dyspnea, who was subsequently diagnosed with acute cancer and SVCS.

Case: A 58-year-old female patient presented to the emergency department with facial redness and dyspnea (Figure 1). The patient had no prior known diagnosis. Over the past year, she had experienced significant weight loss and persistent cough. Given these symptoms and the acute nature of her presentation, a CT scan was performed, which revealed a mass at the apex of the lung. The findings led to a diagnosis of acute cancer and SVCS (Figure 2). Upon diagnosis, the patient was immediately started on steroid and inhaler therapy. She was consulted with the relevant specialty clinics and transferred to the emergency internal medicine service's intensive care unit for further management.

Facial and Cervical Swelling in the Patient



CT Scan Section Showing Apex Mass and Superior Vena Cava Compression





Conclusions: This case highlights the importance of considering SVCS in patients presenting with facial swelling and dyspnea, particularly when accompanied by recent weight loss and chronic cough. Early imaging and intervention are critical in diagnosing and managing this condition. Multidisciplinary care and prompt transfer to intensive care can significantly impact patient outcomes.

Keywords: Superior vena cava syndrome, lung cancer, facial swelling, dyspnea

Ref No: 8497

Pub No: S-044

Posterior knee dislocation, concomitant popliteal artery injury and peroneal nerve damage: A rare case report

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Background and aim: Trauma is a leading cause of death in individuals aged 0-44 in many developed countries, with traffic accidents being the primary cause of trauma-related fatalities in Turkey. Posterior knee dislocation, a severe traumatic injury caused by the tibia's displacement posterior to the femur, is often linked to high-energy trauma, particularly traffic accidents. This injury can lead to critical complications, such as popliteal artery damage, which demands urgent surgical intervention due to the risk of vascular compromise. This case highlights the importance of early diagnosis and multidisciplinary management in posterior knee dislocation with vascular injury.

Case: A 32-year-old male motorcyclist presented to the emergency department following a traffic accident with posterior knee dislocation. Clinical examination revealed pain, joint laxity, and distal pulse loss in the left knee, along with peroneal nerve injury. Imaging, including X-ray and CT angiography, confirmed posterior knee dislocation and popliteal artery injury, characterized by filling deficiency and extravasation. Urgent closed reduction was performed, followed by popliteal artery reconstruction. The dislocation and associated fractures were stabilized using a plate and external fixator. To prevent compartment syndrome, a fasciotomy was also conducted. The patient was monitored in the intensive care unit for four days postoperatively, during which circulation improved, though foot drop and hypoesthesia persisted. Following a rehabilitation period, the patient was discharged.

Figure 1: Preop knee X-ray taken at the patient's first admission



Figure 2: Postop knee X-ray of the patient



Conclusions: Posterior knee dislocations are rare but critical injuries requiring prompt, multidisciplinary management. Early diagnosis and intervention are essential to prevent long-term complications such as vascular damage and nerve injury. This case emphasizes the importance of a rapid surgical approach in managing both dislocation and vascular injuries to improve patient outcomes.

Keywords: Posterior knee dislocation, Popliteal artery injury, Peroneal nerve injury



Ref No: 8584

Pub No: S-008

The Forgotten Disease: Lemierre's Syndrome

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Background and aim: Lemierre's syndrome (LS) is a rare but serious complication of bacterial pharyngitis-tonsillitis, leading to anaerobic septicemia and septic thrombophlebitis of the internal jugular vein (IJV). It typically affects young, otherwise healthy individuals, and requires a high degree of clinical suspicion for diagnosis. Here, we present a case of LS in a 22-year-old male who presented with neck stiffness and dyspnea, and was later diagnosed with a retropharyngeal abscess, jugular vein thrombosis, and acute hypoxic respiratory failure due to pulmonary embolism.

Case: The patient, with no significant medical history, developed neck stiffness and mild shortness of breath three days before seeking care. He had recently experienced tonsillitis two weeks prior but did not take antibiotics. On examination, he was alert with normal oropharynx and tonsils but had purulent posterior secretions. Tenderness was present on both sides of the neck without swelling or hyperemia. Laboratory tests revealed elevated acute phase reactants, and a contrast-enhanced neck CT identified a retropharyngeal abscess and left deep jugular vein thrombosis. The thoracic CT was normal. The patient was admitted to the ENT clinic, where piperacillin-tazobactam and metronidazole were started after blood cultures were taken. Despite initial treatment, the patient's condition deteriorated, requiring intubation and transfer to the intensive care unit. A repeat thoracic CT showed lung abscesses and consolidation, indicative of septic emboli. Blood cultures grew *Staphylococcus aureus* and *Enterococcus faecium*. Despite appropriate antibiotics, the patient developed multi-organ failure and died one week later.

Conclusions: LS can quickly lead to life-threatening complications like IJV thrombosis and septic emboli, especially affecting the lungs. Prompt diagnosis and management, including broad-spectrum antibiotics and abscess drainage, are crucial. Emergency physicians must maintain a high index of suspicion to recognize and effectively manage this potentially fatal syndrome.

Keywords: Lemierre's syndrome, septic thrombophlebitis, septic emboli

Ref No: 8609

Pub No: S-048

Prosthetic Mitral Valve Thrombosis Diagnosed by Bedside Echocardiography

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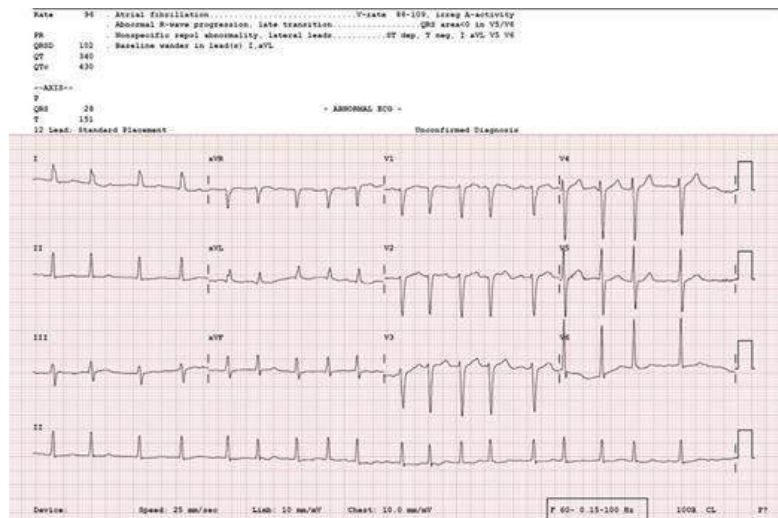
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Background and aim: TBedside ultrasound in the emergency department is a critical tool for making quick and accurate diagnoses. Especially in emergencies, it saves time and improves patient management. In this case, bedside echocardiography played a significant role in patient management. Prosthetic valve thrombosis is a condition that can lead to serious complications. Risk factors include inadequate anticoagulation, post-surgical fibrosis, and atrial fibrillation. Symptoms of thrombosis vary depending on the degree of valve dysfunction and may include dyspnea and the absence of the mechanical valve click sound.

Case: A 66-year-old female patient presented to the emergency department with complaints of palpitations and shortness of breath that had been ongoing for two days. She reported that her shortness of breath and palpitations had started two days earlier and had progressively worsened. She had no fever, cough, or sputum production. Upon arrival, her vital signs were as follows: blood pressure of 150/96 mmHg, heart rate of 143 bpm, oxygen saturation of 95%, body temperature of 36.4°C, and respiratory rate of 22 breaths per minute. When questioned about her medical history, the patient mentioned that she had undergone heart valve replacement surgery and was taking medication for this condition. Upon reviewing her surgical history and medications in the system, it was noted that she had undergone mitral valve replacement and tricuspid ring annuloplasty, and was on warfarin and metoprolol. However, upon further questioning, it was revealed that the patient was not taking her medications regularly. She could not recall when she last had her INR levels checked.

Figure 1



ECG showing atrial fibrillation after intravenous metoprolol administration.

Figure 2



Images of the patient's echocardiogram showing a hyperechoic mitral valve with restricted movement. Due to the significant movement restriction, prosthetic mitral valve thrombosis was suspected.

Figure 2



Images of the patient's echocardiogram showing a hyperechoic mitral valve with restricted movement. Due to the significant movement restriction, prosthetic mitral valve thrombosis was suspected.



Conclusions: Bedside echocardiography is frequently used in emergency departments today for the early diagnosis and treatment of dyspnea etiology. The increasing use of bedside echocardiography, especially for the diagnosis of valvular heart pathology, should be promoted in emergency

Keywords: Prosthetic Mitral Valve Thrombosis, Bedside Echocardiography, Dyspnea



Ref No: 8639

Pub No: S-040

Case Report Of Diaphragmatic Rupture After Trauma

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Background and aim: Traumatic diaphragm rupture is a rare and potentially life-threatening condition that carries a high risk of mortality if not diagnosed and treated early. It typically results from blunt or penetrating trauma, with the left diaphragm being affected more frequently. Common clinical findings include dyspnea, chest pain, abdominal distension, and decreased breath sounds on the affected hemithorax. In this case report, we present a case of traumatic diaphragm rupture occurring after a vehicular traffic accident in a 15-year-old patient.

Case: A 15-year-old female patient presented to the emergency department with complaints of chest pain and shortness of breath following a vehicular traffic accident. The patient reported that she was wearing a seatbelt at the time of the accident. On physical examination, she was moderately distressed with increased respiratory rate and tachycardia. Reduced breath sounds and limited respiratory movements were noted on examination. There was significant tenderness and ecchymosis in the chest area. No abnormalities were observed in other vital parameters. Emergency oxygen therapy was initiated, and supportive treatment with appropriate analgesia was provided. A chest X-ray revealed significant elevation of the left diaphragm and displacement of abdominal organs. Computed tomography (CT) confirmed herniation of abdominal organs into the thoracic cavity. The patient was diagnosed with diaphragm rupture and was urgently referred to the operating room for surgical intervention. Post-operatively, she was monitored in the intensive care unit, and her vital signs stabilized.

Figure 1



FIGURE-1

Figure 2

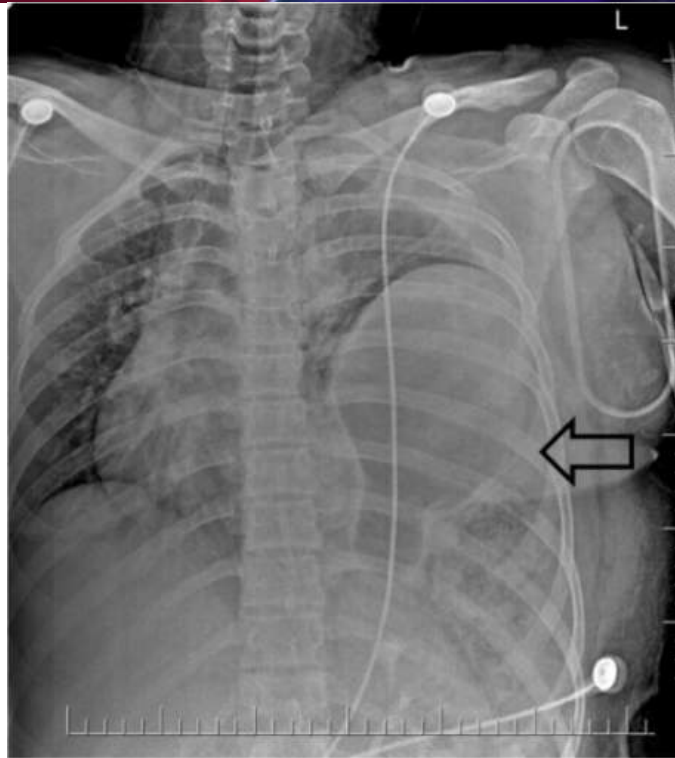


FIGURE-2

Conclusions: Although diaphragm rupture alone is rarely fatal, it can increase mortality and morbidity due to the trauma mechanism and complications such as subsequent herniation. It is important to consider such injuries in high-energy traumas like vehicular accidents. Early diagnosis and surgical intervention are crucial for the patient's survival, as these injuries can be associated with other organ injuries.

Keywords: Diaphragmatic Rupture, Trauma, Emergency Department



Ref No: 8686

Pub No: S-064

Importance of Further Investigation: A Case Report of Infective Endocarditis

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Background and aim: Because infective endocarditis (IE) affects almost all organ systems and can have a slow or fulminant course, the clinical presentation of the disease is nonspecific.

Case: A 21-year-old male patient presented to the emergency department with complaints of headache, fever, chills, chills, nausea, vomiting, weakness, sweating, palpitations and diarrhea for 2 days. There was no history of eating spoiled food. He had a history of heart valve replacement 4 years ago and penicillin allergy. Although he had a history of warfarin use, it was learned that he had not used it regularly for the last 1 year. GCS: 15, general condition was moderate and sclera appeared slightly icteric. Vital values were TA: 144/50 mmHg, Pulse: 120/min, Temperature: 41.4 °C, SpO2: 94%. Laboratory parameters were WBC: 11000, Hg: 12.8, plt: 59000, INR: 1.82, Kre: 1.04, BUN: 3, AST: 24, ALT: 19, Total bil: 2.6, Direct bil: 1.2, Na: 125, CRP: 283, PCT: 17, pH: 7.43, lactate: 1.6, HCO3: 22.8. Few leukocytes and a small amount of erythrocytes were detected in the microscopy of feces. Thorax CT: Thickening of the ground-glass density-interlobular septal structures, which were more prominent in the bilateral perihilar region, was observed. Abdominal USG: only splenic cord length was measured 210 mm and no other pathology was detected. Cardiology was consulted with a prediagnosis of infective endocarditis. Cardiology performed transthoracic echocardiography and no vegetation was found. Due to high infective parameters, he was transferred to the intensive care unit for etiology investigation and treatment. In the intensive care unit, the patient's clinical condition did not improve and transesophageal echocardiography was performed with high suspicion of infective endocarditis and 0.5 mm vegetation was detected on the replacement mitral valve and treatment was continued.

Conclusions: We wanted to emphasize the importance of further investigation with this case report.

Keywords: Infective endocarditis, transesophageal echocardiography, further investigation



Ref No: 8732

Pub No: S-123

A Rare Condition In Pregnancy: Pulmonary Oedema Due To Peripartum Cardiomyopathy

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Background and aim: Peripartum cardiomyopathy (PPCM) is a rare, life-threatening cardiomyopathy occurring late in pregnancy or early postpartum, characterized by left ventricular dysfunction and heart failure. According to the European Society of Cardiology's 2010 definition, PPCM is idiopathic, emerging in late pregnancy or shortly after delivery without an identifiable cause. Typically, the left ventricular ejection fraction falls below 45%, though dilation may not always be present. The cause of PPCM is not well understood, but risk factors include African descent, advanced maternal age, hypertensive disorders, multiparity, multiple pregnancies, obesity, chronic hypertension, and prolonged tocolytic use. The incidence varies by region. This case details a rare PPCM diagnosis in a mother who delivered a healthy baby and initially presented with hypertensive pulmonary edema.

Case: A 37-year-old woman at 37 weeks gestation presented with dyspnea, sweating, and leg swelling. She had type 2 diabetes mellitus. Her vital signs were: oxygen saturation 65%, blood pressure 130/70 mmHg, heart rate 120 bpm, and temperature 36.6°C. ECG showed sinus tachycardia. She was agitated and disoriented. Physical examination revealed bilateral crackles, a pansystolic murmur from the apex to the axilla, +2 pretibial edema, and bilateral jugular vein distention. Echocardiography showed an ejection fraction <35% and left ventricular dilation. Heart failure was suspected, and treatment included nasal oxygen, intravenous nitroglycerin (5 mcg/min), furosemide (40 mg bolus, 20 mg/hour infusion), Foley catheter, and enoxaparin (0.6 ml s.c.). Consultations with cardiology, obstetrics, and anesthesiology were conducted. The patient's oxygen saturation improved to 90%, and 2000 cc of diuresis was achieved. An emergency cesarean section was successfully performed. Both mother and baby were discharged nine days later with follow-up recommendations.

Conclusions: PPCM is a diagnosis of exclusion requiring the evaluation of other heart failure causes. Complicated pregnancies necessitate specific management protocols, and PPCM should be considered in women with heart failure symptoms late in pregnancy or postpartum.

Keywords: Cardiomyopathy, Pregnancy, Pulmonary Edema



Ref No: 8757

Pub No: S-013

Spontaneous Triceps Hematoma and Radial Nerve Impairment due to Warfarin Use

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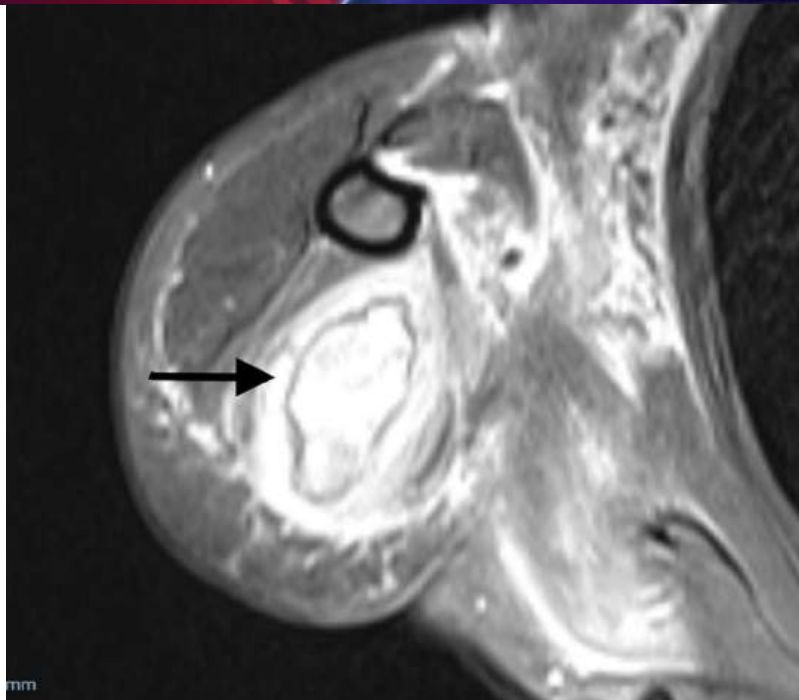
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Background and aim: Intramuscular hemorrhages and hematomas are a complication of anticoagulation in patients using warfarin as an anticoagulant. Hematomas may be due to trauma or may develop spontaneously. Neuropathies due to direct compression of hematomas or hemorrhage around the nerve may rarely occur. We aimed to present a case of spontaneous hematoma in the triceps muscle and associated radial nerve deficit in a patient taking warfarin.

Case: A 70-year-old woman presented to the emergency department with bruising on the right elbow and upper arm. The patient was taking warfarin for mitral valve replacement. On physical examination, there were ecchymosis on the right elbow lateral and medial and above the elbow. Radial, ulnar and median nerve examinations were normal. No fracture was observed on X-ray. INR level was 11.43. The patient was administered 5 mg vitamin K intravenously. The next day, the patient presented to the emergency department again. Physical examination revealed no right hand dorsiflexion movement. INR level was 6.52. Superficial ultrasonography (USG) was performed on the right arm. In the USG report, there was an intramuscularly located organized hematoma area. After administration of prothrombin complex concentrate and 5 mg vitamin K IV 65 cc hematoma was drained by interventional radiology. The patient was hospitalized in the orthopedic clinic for follow-up and treatment. The patient was discharged on the fifth day with normal neurological examination.

MR image of the hematoma



Conclusions: In hematomas drained within 48 hours, it is observed that neurologic loss is completely recovered, but after 48 hours, the success rate decreases to 50% and the neurologic deficit becomes difficult to reverse. Although neuropathies due to intramuscular hematoma have been reported, there is no clear treatment procedure. Therefore, we believe that hematoma evacuation should be considered as a treatment for neuropathies, which is a rare complication, and early treatment may be beneficial.

Keywords: Warfarin, Triceps hematoma, Radial nerve deficit



Ref No: 8826

Pub No: S-023

Stevens-Johnson Syndrome Associated with Diltiazem

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Background and aim: Calcium channel blockers, such as diltiazem, are widely used for cardiovascular diseases. While these medications are generally well-tolerated, they can occasionally cause a spectrum of cutaneous reactions ranging from mild exanthemas to severe adverse events like Stevens-Johnson syndrome (SJS). Herein, we present a patient with severe cutaneous reaction 'SJS' associated with diltiazem use.

Case: A 35-year-old man with a history of hypertrophic cardiomyopathy was switched from propranolol to diltiazem a week ago. Three days after starting diltiazem, the patient developed urticaria and a few "red spots" on his body. He was examined by a dermatologist, who prescribed antihistamines and advised discontinuing diltiazem. Despite the cessation of diltiazem, his skin condition worsened over the next four days, prompting his admission to emergency department. Upon admission, his vital signs blood pressure 120/60 mmHg, heart rate 105 beats per minute, temperature 37.5°C and oxygen saturation 96%. On examination, he presented with a generalized red macular rash, facial swelling, and painful erosions in mouth and on body, arms, and legs. Skin lesions were Nikolsky sign positive, indicative of epidermal detachment. Cardiac and pulmonary auscultations were normal, and the rest of physical examination was unremarkable. Laboratory findings revealed a WBC of $10.2 \times 10^9/L$. Other biochemical parameters were within normal limits. The patient was diagnosed with SJS and admitted to the dermatology department for further investigation and treatment. After systemic steroid treatment, the patient was discharged without any complication.

Conclusions: SJS constitutes a dermatological emergency. Calcium channel blockers like diltiazem, though rarely, can cause severe cutaneous adverse reactions such as SJS. It is crucial for emergency physicians to consider these medications as potential causative agents in patients presenting with new-onset skin eruptions or severe cutaneous reactions. Prompt recognition and discontinuation of offending drug, along with appropriate supportive care, are essential for patient recovery and minimizing complications.

Keywords: Stevens-Johnson syndrome, diltiazem, dermatological emergency

Ref No: 8850

Pub No: S-026

A difficult diagnosis in the emergency department; Emphysematous pyelonephritis

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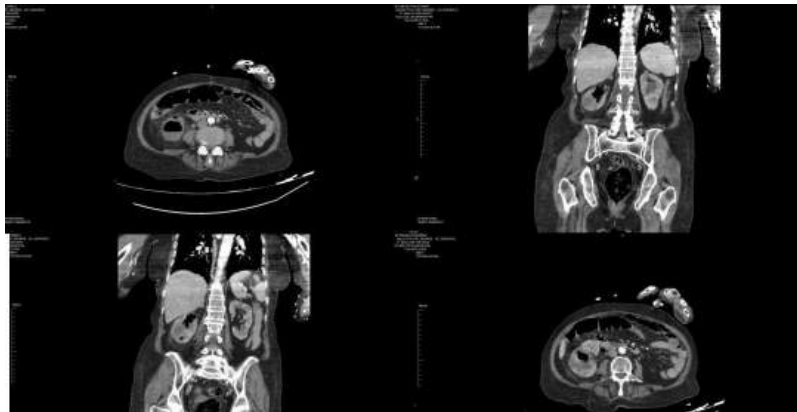
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Background and aim: Emphysematous pyelonephritis (AP) is an acute severe necrotizing infection of the renal parenchyma, resulting in the presence of gas in the renal parenchyma, collecting system or perinephritic tissues. It is an infection with high mortality, usually seen in diabetic patients. The traditional treatment of AP is surgical drainage and appropriate antibiotic therapy or nephrectomy. In this case report, we wanted to present an 88-year-old patient with emphysematous pyelonephritis.

Case: An 88-year-old woman with a known diagnosis of HT, DM and Neuropathic Pain presented to the emergency department with complaints of high fever, chills, chills and pain in the right upper quadrant. Physical examination revealed tenderness in the right upper quadrant. Blood tests showed WBC:14.500 CRP:278 CR:1,67. In the abdominal tomography of the patient, parenchymal areas with air fluid leveling were observed in the right kidney (Figure 1). The patient was consulted to Internal Medicine and Urology. Urology did not consider urgent surgical intervention. The patient was hospitalized in the internal medicine ward. For 7 days, intravenous antibiotic treatment was administered. CRP and WBC values decreased in the follow-up and the patient was discharged with healing.

Figure 1



Abdominal Computed Tomography sections of the case

Conclusions: Emphysematous pyelonephritis is a necrotizing infection of the renal parenchyma and surrounding tissues and is characterized by gas formation in the renal parenchyma, collecting system or perinephritic tissue. More than 90% of patients are diabetic and women are 6 times more common than men. Clinically stable patients with focal AP involvement of the kidney may respond to broad-spectrum antibiotic therapy. During this treatment, CT examination should be repeated according to the status of clinical developments and the regression of the existing lesions should be monitored. It is



difficult to make a differential diagnosis and bring it to mind in the emergency department and should not be forgotten. If not brought to mind, it can lead to further complications and morbidity-mortality.

Keywords: Emphysematous pyelonephritis, emergency department, abdominal pain

Ref No: 8854

Pub No: S-017

Case report: renal pelvis rupture due to stone

Nurettin portakal¹, Seyit ali karagöz¹, Sibel güçlü utlu¹

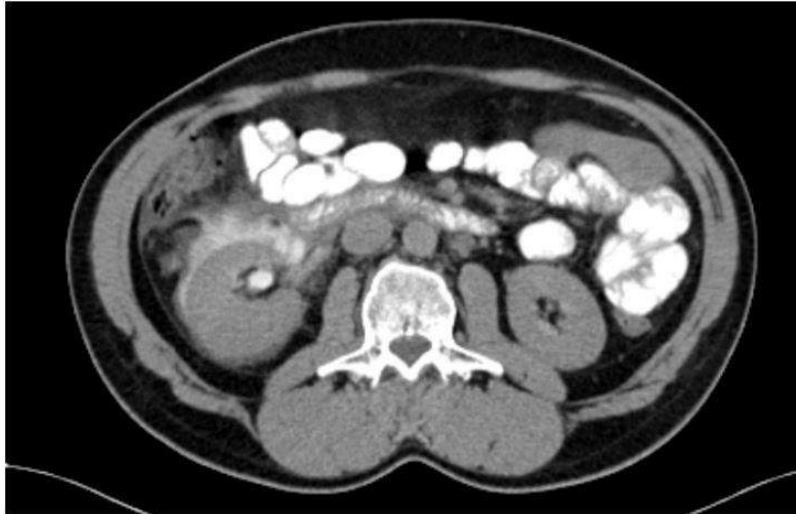
¹şehir hastanesi acil tıp bilim dalı erzurum

Nurettin portakal / şehir hastanesi acil tıp bilim dalı erzurum

Background and aim: Renal pelvis rupture is a rare condition that typically occurs due to increased pressure following hydronephrosis caused by stones obstructing the urinary system. As the duration of the stone's presence in the ureter increases, complications such as acute infection, hydronephrosis, and renal failure may develop. Spontaneous rupture of the collecting system due to pressure buildup from the obstruction is a rare complication of ureteral stone-induced obstructions.

Case: A 50-year-old male patient, with no known comorbidities, presented to the emergency department with a complaint of right-sided flank pain that began one day earlier. The patient's vital signs were within normal limits on arrival. Physical examination revealed right costovertebral angle tenderness (CVAT) and abdominal tenderness and guarding in the right lower quadrant. Laboratory results showed elevated white blood cell count (WBC: 11), neutrophils (Neut: 7.9), and serum creatinine (1.49), with erythrocytes present in the urinalysis. Considering the patient's toxic appearance and abdominal guarding, further imaging was ordered, including abdominal X-ray, USG, and contrast-enhanced oral and intravenous CT scans.

renal pelvis rupture ct 1



renal pelvis rupture ct 2



Conclusions: Rupture of the ureter and renal pelvis is a rare condition, often traumatic in nature, with non-traumatic causes being less common. Traumatic causes are typically secondary to blunt abdominal trauma or endoscopic urological procedures. Non-traumatic causes include ureteral stones, surgical sutures, or increased pressure in the upper urinary system due to abdominal masses. Spontaneous renal pelvis rupture, first described by Wunderlich in 1856, is a rare complication of obstructive ureteral stones. The presumed mechanism involves a sudden increase in intrapelvic pressure, causing the tissue of the renal pelvis to rupture, leading to urine extravasation and relieving intrapelvic pressure, thereby preventing further renal damage. The rupture occurs when ureteral pressure exceeds 20-75 mmHg, leading to urine extravasation and the development of a perirenal urinoma.

Keywords: renal pelvis rupture, urinoma, renal stones

Ref No: 8867

Pub No: S-038

The Importance of Physical Examination in the Emergency Department: Spontaneous Pneumomediastinum

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Background and aim: Spontaneous pneumomediastinum (SPM) is a rare clinical condition characterized by the presence of air within the mediastinum without any traumatic or barotraumatic cause. It is most commonly observed in young males and can be easily overlooked in the emergency department during differential diagnosis. In this case report, we aim to highlight the importance of physical examination in the diagnostic process of a patient presenting to the emergency department.

Case: A 20-year-old male patient presented to the emergency department with complaints of shortness of breath, cough, sore throat, and loss of appetite. The patient had no known medical history, and there was no history of smoking, substance use, or trauma. Physical examination revealed decreased bilateral lung sounds. Upon palpation, extensive subcutaneous crepitus was detected in the supraclavicular region. No abnormal findings were noted on other systemic examinations. His vital signs were stable, with a blood pressure of 110/70 mmHg, pulse rate of 125 bpm, respiratory rate of 25 breaths per minute, and oxygen saturation of 98%. The electrocardiogram (ECG) showed sinus tachycardia. A chest X-ray (Figure 1) revealed extensive subcutaneous emphysema without evidence of massive pneumothorax. A computed tomography (CT) scan of the thorax performed for differential diagnosis (Figures 2 and 3) demonstrated areas of pneumothorax extending to both upper and lower lobes, with air collections extending from the cervical and thoracic subcutaneous tissues into the muscle planes, including a 2.5 cm pneumothorax area on the left.

Figure 1



Figure 1 (Posteroanterior Chest X-ray): The posteroanterior (PA) chest X-ray showed extensive subcutaneous emphysema, with no evidence of massive pneumothorax.

Figure 2



Figure 2 (Thoracic Computed Tomography): Thoracic computed tomography (CT) revealed air collections extending to both upper and lower lobes bilaterally.

Figure 3

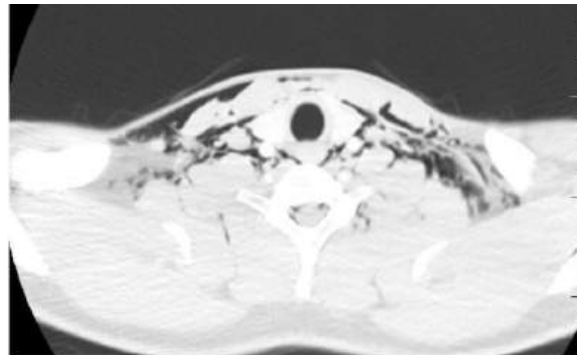


Figure 3 (Thoracic Computed Tomography): The thoracic computed tomography (CT) scan also demonstrated air collections extending into the muscle planes, with subcutaneous emphysema visible from the cervical to the thoracic regions.

Conclusions: Although spontaneous pneumomediastinum is rare, it should be considered in the differential diagnosis of patients presenting with shortness of breath and chest pain. This condition can be diagnosed with physical examination and simple radiological investigations and, if recognized early, can be managed conservatively.

Keywords: Pneumomediastinum, Physical Examination, Emergency Department



Ref No: 8878

Pub No: S-049

Does Singing Carry a Risk of Death?; Pneumomediastinum

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Background and aim: Pneumomediastinum is a rare condition characterized by the presence of air within the mediastinal space. While it often results from trauma, asthma attacks, or severe coughing, spontaneous cases can also occur. Patients may present with symptoms such as chest pain, shortness of breath, neck swelling, and sometimes subcutaneous emphysema. Diagnosis is typically made through radiological imaging, based on clinical suspicion. It is crucial for clinicians to consider pneumomediastinum, even in young and healthy individuals. In this report, we discuss a case of a young man who developed pneumomediastinum after singing loudly at a concert, highlighting her symptoms, diagnostic process, and treatment approach. Additionally, we will review critical points to consider in the management of such cases and provide recommendations for follow-up.

Case: A 22-year-old male patient presented to our clinic with atypical chest pain, sore throat, and a feeling of bloating in the stomach that had been ongoing for several days. The patient described the chest pain as sharp and worsening with deep breaths. His medical history was unremarkable for any cardiac disease or gastrointestinal disorders. On physical examination, the patient's temperature was 36.5°C (R), heart rate 80 bpm, blood pressure 120/80 mmHg, and the electrocardiogram (ECG) revealed normal sinus rhythm with a rate of 79 bpm. The patient was in good general condition, alert, oriented, and cooperative. Examination of the oropharynx was unremarkable. However, the patient reported a sensation of fullness in the throat and neck. Crepitus was palpated under the skin, particularly in the supraclavicular region. A crepitant sound, resembling crackles, was heard over the upper chest or precordial area during auscultation.

Figure 1



The patient's posteroanterior (PA) chest radiograph, showing fine mediastinal air lines.

Figure 2

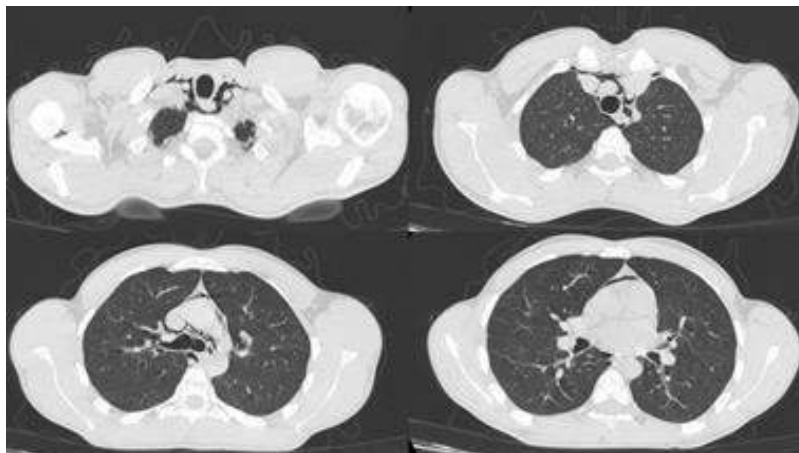


Figure 2: The patient's thoracic computed tomography (CT) images, showing free air within the mediastinum.

Conclusions: Pneumomediastinum should always be considered among the differential diagnoses in patients who develop dyspnea following intense shouting. Imaging studies must be utilized in patients presenting with dyspnea to ensure accurate diagnosis.

Keywords: Pneumomediastinum, concert, Respiratory Emergencies



Ref No: 9052

Pub No: S-019

A case of stroke presenting with bilateral sudden hearing loss

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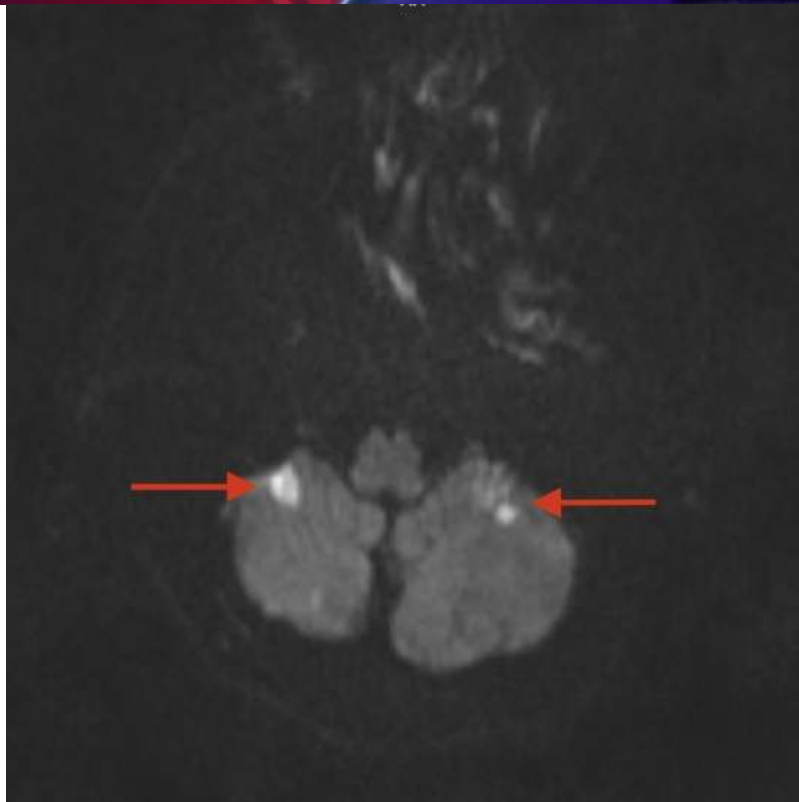
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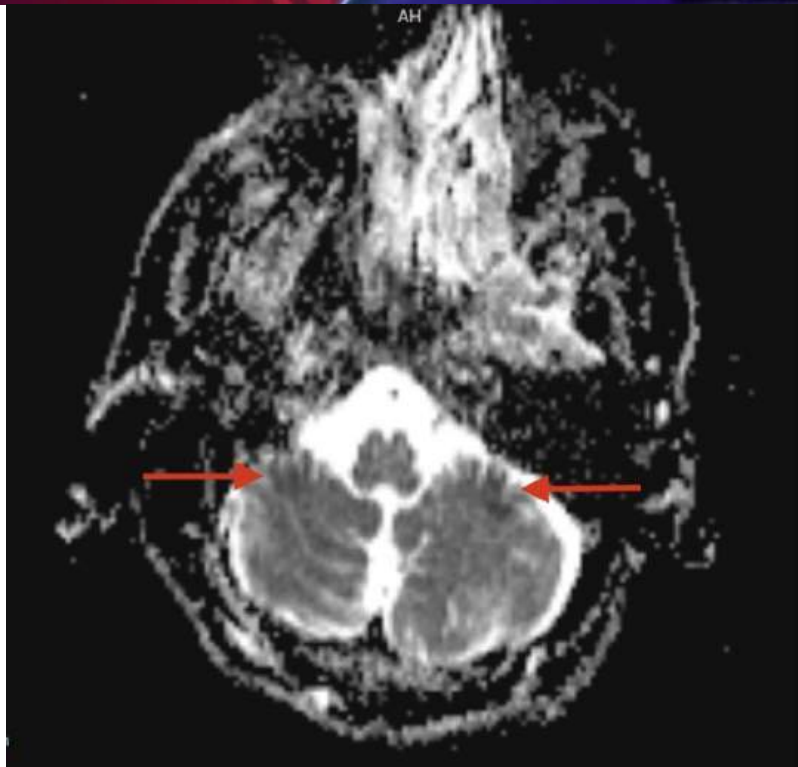
Background and aim: Twenty percent of ischemic events in the brain involve posterior circulation (vertebrobasilar) structures. The anterior inferior cerebellar arteries (AICAs) originate from the lower or middle portion of the basilar artery. The most common symptoms are vertigo, unsteady gait, and dysarthria. In some patients, ipsilateral hearing loss is an early sign. Here we aimed to present a case of stroke presenting with bilateral sudden hearing loss.

Case: A 64-year-old man presented to the emergency department with sudden onset of hearing loss in both ears. Hearing loss was accompanied by loss of balance and inability to walk. The patient had a history of diabetes mellitus, hypertension and stroke. On physical examination, consciousness was clear, partially cooperative and oriented due to hearing loss. Hearing loss was not total. Speech was fluent, comprehension and naming were normal. Muscle strength in all four extremities was complete, facial asymmetry was absent. Gait was ataxic. Horizontal nystagmus was present to the right. Blood tests and cranial computed tomography was normal. Diffusion magnetic resonance imaging showed bilateral ischemia of the cerebellum. (Figure 1-2) Vertebral and carotid doppler ultrasonography revealed stenoses. Stenting of the internal carotid artery was performed by interventional radiology. The patient was followed up with anticoagulant and antiplatelet therapy.

Bilateral cerebellar infarction



Bilateral cerebellar infarction



Conclusions: Hearing loss is often seen in peripheral vestibular events is a symptom, but it can also occur in central pathologies, especially in the presence of vascular risk factors. In these cases, keeping in mind that rare AICA infarcts may be a possible cause of vestibular symptoms will be important for early diagnosis and treatment approaches.

Keywords: sudden hearing loss, stroke, AICA infarct



Ref No: 9142

Pub No: S-006

The Cause of Life-Threatening Gastrointestinal Bleeding: Aorto-esophageal Fistula

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Background and aim: Aorto-esophageal fistula (AEF) is a rare but life-threatening condition characterized by an abnormal connection between the aorta and the esophagus, leading to gastrointestinal (GI) bleeding with high mortality rates. The incidence of AEF is low, ranging from 0.1% to 0.8%, but its consequences are severe, often resulting in hypovolemic shock and death if not promptly diagnosed and treated. Common causes include aortic aneurysms, aortic surgery, infections, malignancies, and ingestion of corrosive substances. This case report highlights the critical need for rapid diagnosis and intervention in patients presenting with GI bleeding and suspected AEF.

Case: A 72-year-old woman with a history of diabetes, hypertension, and coronary artery disease presented to the emergency department (ED) with altered mental status and hematemesis. On examination, she was found to be hypotensive (blood pressure: 76/43 mmHg), tachycardic (heart rate: 132 bpm), and had melena on rectal examination. Bedside ultrasound revealed an ascending aortic aneurysm, and the patient was immediately resuscitated with fluids, proton pump inhibitors, and blood transfusions. Gastroenterology and cardiovascular surgery consultations were obtained. Although endoscopy showed fresh blood in the esophagus with no identifiable source, a subsequent CT angiography confirmed the presence of an AEF. The patient underwent emergency surgery and was discharged in good condition after 8 days of postoperative care.

Conclusions: Aorto-esophageal fistula, though rare, should be considered in the differential diagnosis of GI bleeding, especially in hemodynamically unstable patients with aortic pathology. Early recognition and prompt surgical intervention are crucial for survival, as the condition carries a high mortality rate if left untreated. This case underscores the importance of considering AEF in the ED and the need for immediate imaging and surgical consultation to improve outcomes in such critical scenarios.

Keywords: aorto-esophageal fistula, gastrointestinal system bleeding, vascular emergency, aof

Ref No: 9224

Pub No: S-054

CHLORINE GAS EXPOSURE

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Background and aim: Chlorine gas exposure is not frequently encountered in the general population or in emergency departments, and cases in medical literature are limited. Our patient presented to the emergency department with complaints of shortness of breath and cough following exposure to a chlorine tank. In patients presenting with shortness of breath, a thorough history is crucial. In some severe cases, acute lung injury and/or adult respiratory distress syndrome (ARDS) may occur. Chlorine gas primarily acts locally, so systemic effects from absorption are not commonly seen. [1] [2]

Case: A 58-year-old male patient with no known medical history presented to the emergency department with complaints of fatigue, nausea, and shortness of breath. It was learned that his symptoms began while cleaning a pool tank with chlorine gas, with an exposure duration of approximately two hours. Supportive treatment was initiated with 2 L/min O₂ via nasal cannula and hydration with 150 cc/h saline infusion. Thoracic CT revealed widespread ground-glass opacities in the right basal and middle lobes. The patient was transferred to the pulmonary hospital with preliminary diagnoses of chronic chlorine gas intoxication and pneumonia. During follow-up, the patient showed a decrease in shortness of breath and a reduction in crackles on lung auscultation.

figure 1





Conclusions: Patients presenting to the emergency department with chlorine gas exposure should not be overlooked, as their exposure often occurs after environmental disasters or accidents at home or work. It should be kept in mind that the patient may progress to ARDS as a result of bacterial pneumonia developing on the background of chemical pneumonia.

Keywords: chlorine gas, exposure, pulmonary injury



Ref No: 9257

Pub No: S-027

Hypertension due to scorpion sting during pregnancy

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Background and aim: In the literature, complications such as miscarriage, eclampsia, premature rupture of membranes due to scorpion sting in pregnancy have been reported. However, the possible effects of scorpion sting on pregnant women and the fetus are not clear. We report a case of hypertension after scorpion sting in a 16-week pregnant patient.

Case: A 32-year-old, 16-week G2P1 pregnant patient with no known medical history presented to our emergency department with a scorpion sting on the dorsolateral of the left foot. The patient had redness and pain in the scorpion sting area with a diameter of 2 cm. She was followed up as stage 1. The patient's foot was elevated and ice was applied to the lesion area. Paracetamol 1 gr was administered for pain. Low dose methylprednisolone and single dose pheniramine were also injected. Our patient was found to be hypertensive (150/90 mm/hg) with stable vital signs on arrival. Obstetrics was consulted for the mother and fetus. No abnormal findings were found. No abnormal values were detected in the patient's laboratory results. The patient who did not need antivenom in the follow-up was started on alfamethyldopa (2x250 mg po) with the recommendation of internal medicine because her blood pressure remained high. The patient was followed up in the emergency room for approximately 24 hours and discharged after blood pressure regulation. It was observed that the patient had gynecology outpatient clinic follow-ups and antihypertensive medication use due to hypertensive attacks throughout the period until the end of her pregnancy. Our patient had a healthy birth at 36 weeks + 4 days, weighing 3050 grams. It was observed that antihypertensive treatment was stopped in our patient whose blood pressure was stable after pregnancy.

Erythema in the lesion area



Conclusions: Pregnant women after a scorpion sting should be monitored regularly throughout their pregnancy for metabolic disorders.

Keywords: Scorpion sting, Pregnancy, Hypertension

Ref No: 9282

Pub No: S-004

A Case of Cerebellar Arteriovenous Fistula Presenting with Cardiac Arrest

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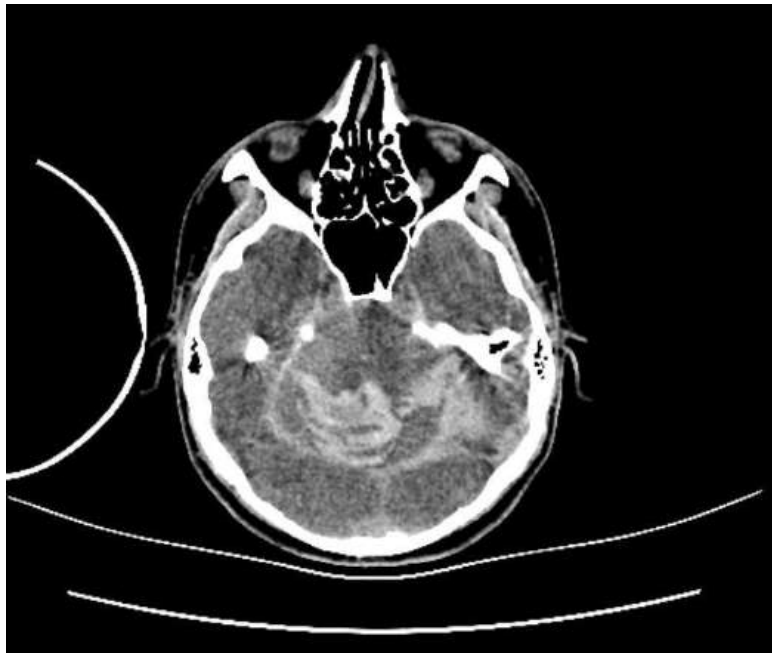
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Background and aim: Cerebellar arteriovenous malformations (AVMs) are rare conditions often presenting with hemorrhage and have high mortality rates. Unlike supratentorial AVMs, their mortality hasn't significantly decreased over time (1). In this case report, we aim to draw attention to the subject by presenting a case which presented with cardiac arrest.

Case: A 16-year-old male with no medical history was brought to the Emergency Department after suddenly vomiting and losing consciousness. He was in cardiac arrest upon paramedics' arrival. After 15 minutes of CPR, spontaneous circulation was achieved. Blood tests showed metabolic acidosis. Inotropic therapy was initiated due to persistent hypotension. Echocardiography and ECG were normal. CT scans revealed subarachnoid hemorrhage in perimesencephalic cisterns, bilateral tentorium cerebelli, interhemispheric fissure, and extensive hematoma at the 4th ventricle. Thorax and abdominal imaging were normal. The patient was admitted to ICU. External ventricular drainage was applied. Selective Cerebral Angiography showed early-phase filling in right dural sinuses and cortical veins with late-phase pooling, consistent with an arteriovenous fistula. The patient remains critical.

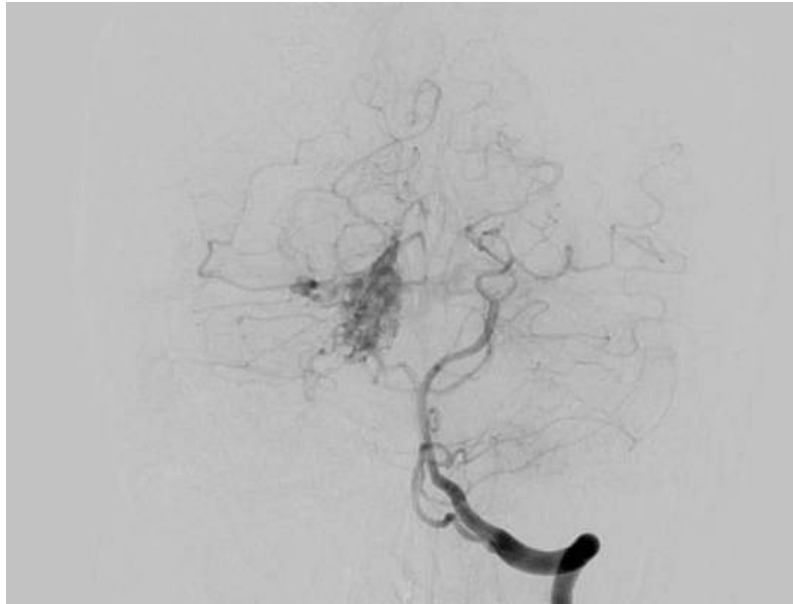
Figure 1





Initial Cranial Computed Tomography Scan shows subarachnoid hemorrhage.

Figure 2



Selective Cerebral Angiography showed early-phase filling in right dural sinuses and cortical veins with late-phase pooling, consistent with an arteriovenous fistula.

Conclusions: In the literature, cerebellar AVMs are often grouped together with brainstem AVMs under the broader category of 'posterior fossa AVMs'. The incidence of posterior fossa AVMs is calculated as 2/10,000, while the exact percentage of cerebellar AVMs within this group is not known. This group is also called "Silent AVMs," differing from supratentorial AVMs in that 72-92% of initial presentations are due to hemorrhage (2). Various studies have shown that the mortality rate due to initial bleeding can reach up to 70% (3). Imaging modalities for AVMs include CT, MR imaging, and CT/MR angiography. Despite advances in medicine, mortality has not decreased over the years (4).

Keywords: Cerebellar arteriovenous malformations, Cerebellar arteriovenous fistula, Subarachnoid hemorrhage



Ref No: 9309

Pub No: S-088

A case of fornier gangrene, an uncommon emergency diagnosis

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Background and aim: Fournier's gangrene is an infectious disease that starts in the perineal region and can progress with necrosis of the fascia . Early diagnosis and early surgical intervention are very important for this disease, which can progress rapidly. We aimed to present an uncommon emergency department admission case with a fatal infectious disease complication.

Case: An 88-year-old male patient was brought to the emergency room by his relatives due to complaints of swelling and bruising in the groin. The patient, whose fever started 13 days ago, was admitted to another hospital 10 days ago due to a local infection in the groin area. After one week of treatment, the patient refused treatment and left the hospital before the treatment was completed. The patient, who does not have any other comorbid disease requiring medication use, has been receiving intravenous 500 mg/day Levofloxacin and intravenous 500 mg/day Ceftriaxone treatment for 10 days. Vital parameters of patients are : Temperature 39.2, blood pressure: 150/85mm/Hg pulse: 110 per minute Spo2:94 blood glukoz level: 112mg/dl. Examination findings: Addition to hyperemic and 10x15 cm necrotic area on the edema swelling lesion in the groin area extending from the right lower quadrant to the testicles, widespread tenderness in the abdomen. The CT report showed intestinal segment herniations in both inguinal canals. At this level, heterogeneity, air and fluid images were observed in the skin and subcutaneous tissues on the right side (abscess?). Gas-fecal bloating and air-liquid levels in the intestinal segments (ileus?). Pathological laboratory results: crp:330 wbc: 28.8 neu: 27.1 neu%: 94.2. After infection disease and general surgery consultation, Fournier's gangrene operation was planned to operation for debridement. Additionally IV piperacillin tazobactam 3x4.5mg/day has been began.

External vision of the skin lesion



Necrotic tissue is seen on the edematous skin over the hernia.

Conclusions: Fournier gangrene should definitely be considered in the emergency differential diagnosis of anogenital cellulitis and other infections.

Keywords: Fournier gangrene, Emergency Department, Anogenital abscess



Ref No: 9316

Pub No: S-034

More Dangerous than Anaphylaxia: Kounis Syndrome

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Background and aim: Kounis syndrome (KS): KS typically occurs as a result of degranulation of mast cells via allergic reactions, resulting in the release of histamine, platelet activating factor, arachidonic acid products, cytokines, chemokines, and other proteases. The main clinical symptoms and signs of Kounis syndrome are subclinical, clinical, acute or chronic allergic reactions accompanied with cardiac symptoms. Various electrocardiographic changes such as ST segment elevation or resistance, heart blocks, cardiac arrhythmias can always be found with cardiac signs and symptoms. Clinical symptoms include acute chest pain, chest tightness, difficulty swallowing, dyspnea, syncope, headache, weakness, nausea, vomiting, and skin itching, while clinical findings include cold extremities, hypotension, pallor, tachycardia, skin redness, bradycardia, cardiorespiratory arrest, and sudden death.

Case: 52-year-old female patient. After taking one moxifloxacin tablet, itching started on her body. The patient was brought to the emergency room by ambulance. The patient's medical history includes diabetes and hypertension. Vital signs blood pressure: 103/55 pulse: 98 respiratory rate: 19 oxygen saturation: 98 fever: 36.7 blood sugar: 121. The patient was monitored in the emergency room, and in the following minutes, his blood pressure dropped to 53/33 and his pulse rate dropped to 36. Inferior myocardial infarction was detected in the patient's control ECG (image 1-2).

image 1

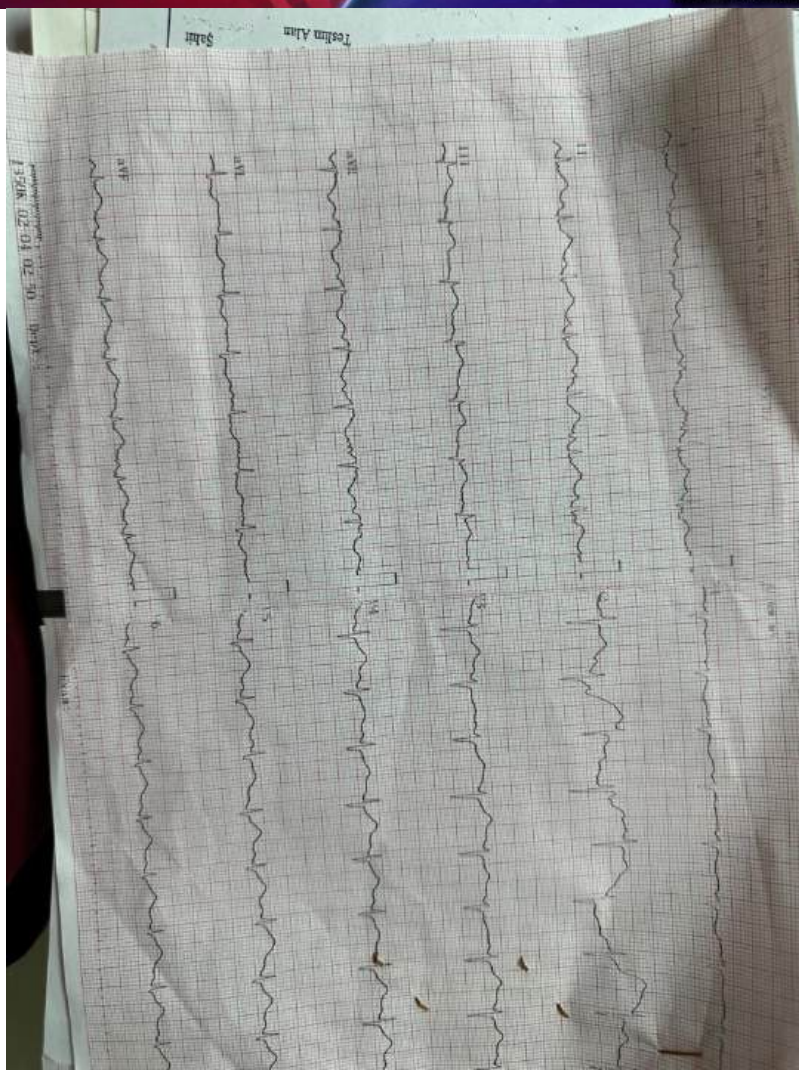
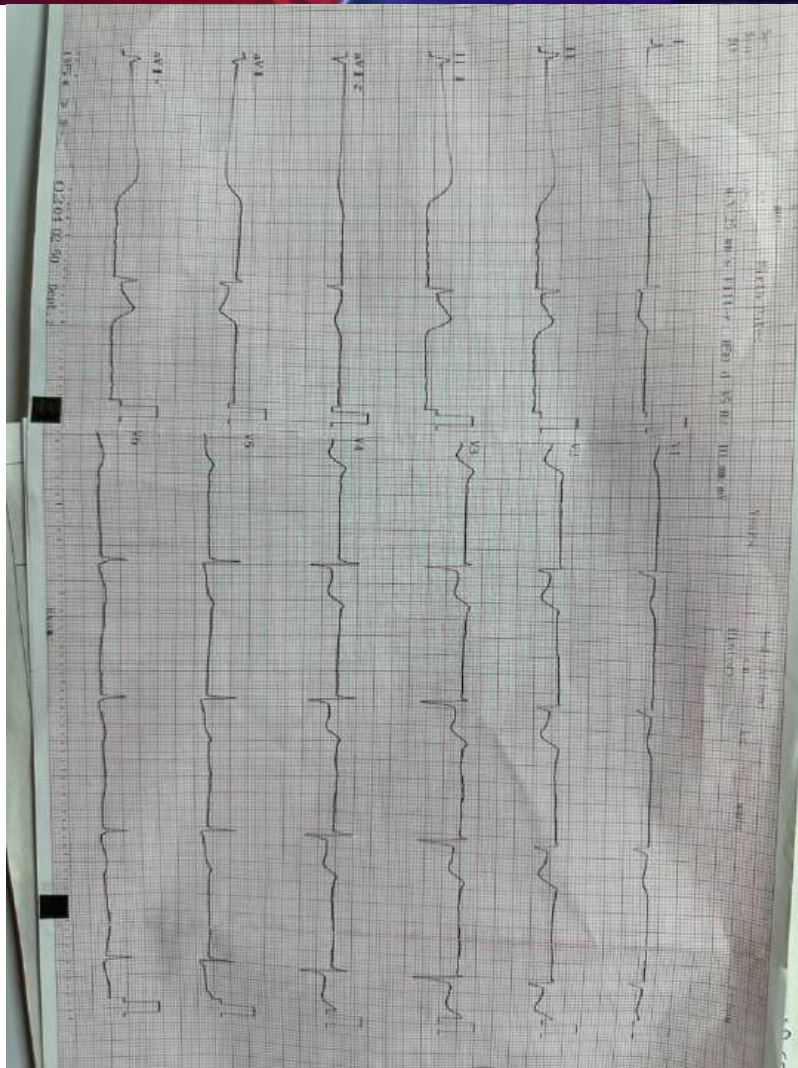


image 2



Conclusions: The most important point in the diagnosis of Kounis syndrome is to suspect this syndrome. Kounis syndrome should be suspected in patients with clinical, electrocardiographic and laboratory findings of acute myocardial ischemia due to systemic allergic reaction. Measurement of serum histamine, tryptase, cardiac enzymes and cardiac troponins is useful in reaching the diagnosis. Echocardiography and coronary angiography: Essential in diagnosing heart wall abnormalities, including Takotsubo cardiomyopathy, and in defining coronary anatomy in cases of Kounis syndrome.

Keywords: Anaphylaxis, Kounis Syndrome, Emergency medicine



Ref No: 9380

Pub No: S-020

Recurrent penile fracture in a patient on anticoagulation therapy

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Background and aim: Penile fractures are significant urological emergencies typically resulting from traumatic incidents and require prompt surgical intervention. Recurrent penile fractures, although rare, present additional therapeutic challenges and complications. Here, we present a patient presented to the emergency department (ED) with recurrent penile fractures 10 years apart.

Case: A 58-year-old male presented to the emergency department with complaints of penile bruising, and pain. The patient had a history of a penile fracture 10 years earlier, which required surgical repair. His medical history included coronary artery disease and atrial fibrillation, for which he was taking rivaroxaban and salicylate every day. Upon admission, the patient's vital signs were as follows: blood pressure: 101/75 mmHg, heart rate: 98 bpm, SpO₂: 90%, and temperature: 36.5°C. Physical examination revealed significant penile swelling, bruising, and pain, suggestive of a recurrent penile fracture. The other system examinations were normal. The patient was also able to urinate normally and there was no bleeding in urine. The laboratory tests showed normal coagulation markers and platelet counts, and the remaining tests were unremarkable. Urgent urology consultation requested and after the consultation, the patient was taken to surgery for repair. Intraoperative findings revealed a fracture line measuring approximately 1-2 cm located on the left lateral side of the penis, near the urethra. A primary repair was performed successfully. Postoperative follow-up showed no complications, and the patient was discharged with oral antibiotics for infection prophylaxis.

Conclusions: Penile fractures are urgent urological emergencies that require prompt recognition and treatment by emergency physicians to avoid serious complications. This case emphasizes the need for swift surgical intervention and awareness of potential recurrence, especially in patients with a history of penile fracture or those on anticoagulation therapy.

Keywords: recurrent penil fracture, urological emergency, emergency department



Ref No: 9403

Pub No: S-116

SPONTAN QUADRİCEPS TENDON RUPTURE

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Background and aim: Joint pain is a very common condition in emergency department practice and its etiology may include many causes such as metabolic diseases and trauma. Spontaneous quadriceps tendon rupture in a patient presenting with knee pain is one of these conditions. Quadriceps tendon rupture is a rare injury, we present a 44-year-old male patient with spontaneous patellar rupture.

Case: A 44-year-old male patient presented with swelling and pain in the left knee. The patient stated that he slightly hit his head on the door while getting out of the bus in the morning and felt pain in his left knee afterwards. There was no other history of trauma. Extension movement in the left knee joint was not possible. The patella was located superiorly in the knee radiograph. The report of superficial tissue ultrasonography performed due to swelling in the knee was as follows: "A 20 mm heterogeneous hypoechoic appearance was observed in the quadriceps femoris muscle which may be compatible with intramuscular hematoma. Mild fluid increase was observed in the supratellar fossa and knee joint space. It is recommended to evaluate the patellar tendon with MR imaging for possible rupture-injury. Non-contrast knee mr imaging of the patient " The anterior cruciate ligament integrity was complete and its intensity increased along the trace (interstitial rupture)." After the orthopedic consultation, the patient was admitted for operation by applying a long leg splint to the left leg. In the operation performed by the orthopedist, it was seen that the quadriceps tendon was avulsed from the patella and the operation was terminated with a long leg splint after repair.

Conclusions: Detailed anamnesis and physical examination in patients presenting with knee pain and limitation of motion will help us to make important diagnoses such as quadriceps tendon rupture, which may be encountered rarely.

Keywords: SPONTAN QUADRİCEPS TENDON RUPTURE



Ref No: 9415

Pub No: S-114

A Clinically Unlikely Case of Pulmonary Embolism: Pulmonary Embolism Caused by Hyperhomocysteinemia

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Background and aim: Pulmonary embolism, which is one of the etiologies of chest pain and dyspnea, is a clinical picture caused by partial or complete occlusion of the pulmonary artery or one of its branches by a thromboembolism. Pulmonary embolism may also occur in various genetic diseases. Hyperhomocysteinemia, which is one of them, is the cause of pulmonary embolism in our patient in the case we will present in this article.

Case: A 28-year-old female patient presented with complaints of pain in the right lower ribs for 4 days. She had no additional complaints. The patient thought that she had muscle pain after exercise but the pain did not go away. ECG showed sinus tachycardia. The right diaphragm was slightly elongated on chest radiography. D-dimer was obtained as an additional test. D-dimer:0.94 mg/L (rf:<0.55) was obtained and pulmonary artery CT angiography was planned. CT angiography showed segmental branches with filling defects in the posterior part of the right lung lower lobe. After the patient was diagnosed with pulmonary embolism, pulmonary consultation was performed. The patient was hospitalized in the ward for 1 day and was discharged with improvement. The patient's symptoms regressed and chest diseases outpatient clinic control was recommended.

Conclusions: Pulmonary embolism can be diagnosed in patients with a low clinical risk of pulmonary embolism. In terms of the source of thromboembolism in these patients, various hereditary causes; activated protein c resistance, protein gene mutation, hyperhomocysteinemia, antithrombin III deficiency, protein c and protein s deficiency should be investigated. Among these, the incidence of hyperhomocysteinemia is 10-20%. Elevated homocysteine poses a risk for thromboembolism especially in young patients like our patient. Hyperhomocysteinemia should be investigated in patients diagnosed with pulmonary embolism, especially in younger patients who are clinically considered to have a low probability.

Keywords: pulmonary embolism, hyperhomocysteinemia



Ref No: 9419

Pub No: S-001

Retinal Artery Occlusion and Hyperbaric Oxygen Therapy

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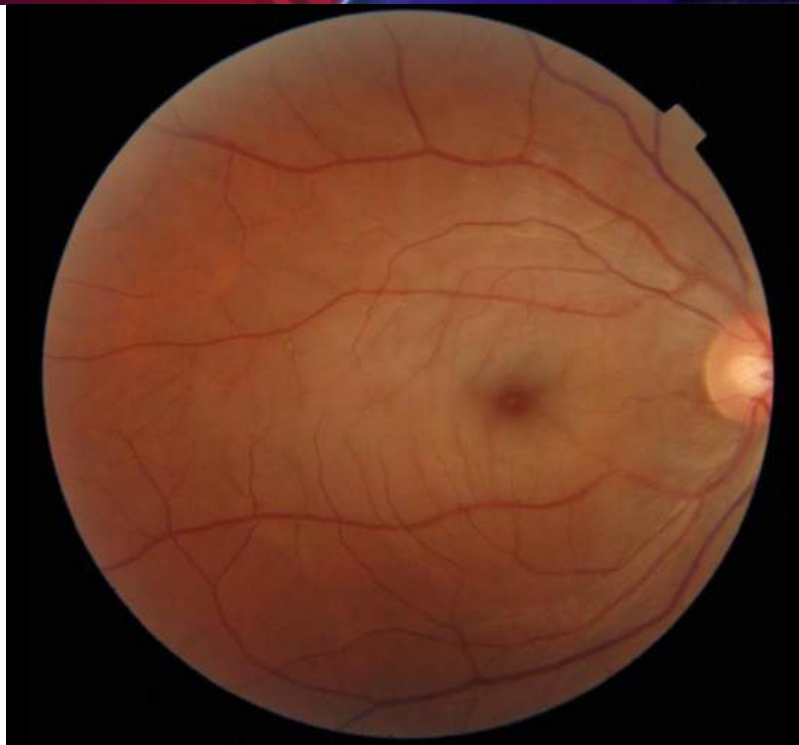
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Background and aim: Retinal vascular occlusive diseases are common conditions that cause visual dysfunction and partly represent the underlying pathology of atherosclerosis and thromboembolism. CRAO is an ophthalmic emergency that results from the sudden occlusion of the central retinal artery (CRA) and typically presents as sudden, painless monocular vision loss. The incidence of CRAO is estimated to be 1 in 100,000 patients per year . In our case, we describe a patient who presented with sudden monocular vision loss and received urgent hyperbaric oxygen therapy.

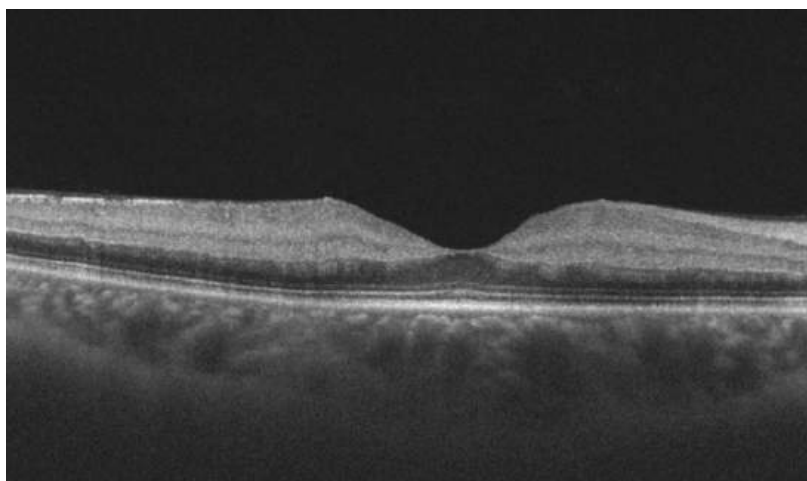
Case: A 43-year-old woman presented with painless, complete vision loss in her right eye upon waking. She has asthma and a recent splenic infarction, for which she takes rivaroxaban. Her vital signs were stable. She was referred to ophthalmology with a preliminary diagnosis of retinal artery occlusion. Fundus examination showed isocoric pupils, no light perception in the right eye, full visual acuity in the left eye, a cherry red spot in the right eye, and an afferent pupillary defect. Neurological exam was normal. Brain CT and MRI showed no cerebrovascular pathologies. Based on these findings, retinal artery occlusion was considered, medical treatment to lower intraocular pressure was initiated, and hyperbaric oxygen therapy was arranged.

Color Fundus Photography



A cherry-red spot

Optical Coherence Tomography



There is hyperreflectivity and thickening of the retinal inner layers up to the outer plexiform layer due to edema

Conclusions: HBOT involves inhaling 100% oxygen under high pressure, significantly increasing dissolved oxygen in tissues and promoting healing. It is used to treat CRAO, showing effectiveness in improving vision when given in 90-minute sessions, three times within the first 24 hours, followed by daily sessions until no further improvement is seen. In patients



presenting with sudden vision loss, retinal artery occlusion should be considered, and HBOT should be kept in mind as a treatment option.

Keywords: HBOT, Central Retinal Artery Occlusion, Vision loss



Ref No: 9458

Pub No: S-070

Patient with Multiple Hemorrhage Due to Warfarin and Antibiotic Use

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Background and aim: Coumadin overdose remains a significant clinical challenge, necessitating a multidisciplinary approach to both prevention and treatment. In this case, we wanted to present a rare case of bleeding in the skin, gastrointestinal tract, brain and lung due to antibiotic use in a patient with warfarin use admitted to the emergency department.

Case: A 68-year-old male patient was admitted to the emergency department with the complaint of bruising in the gluteal region. It was learned that the patient had used intramuscular antibiotic (clindamycin 600 mg) prescribed by the dentist 1 week ago for dental caries. He also stated that he had black stools once 3 days ago and this complaint disappeared afterwards. He was taking warfarin 5 mg 1*1. The patient's vitals were Blood pressure: 126/54 heart rate: 61/minute, oxygen saturation was 99%. On physical examination, Glasgow coma score: 15 pupils isocoric +/- speech was normal, both extremity muscle strength was 5/5, face and whole body were icteric, respiratory sounds were normal. Ecchymotic area was seen in both gluteal region and palm of the right hand (figure 1). Laboratory tests of the patient: total bilirubin: 4.5 mg/dL direct bilirubin:0.43 mg/dL INR: outside the device reading range hemoglobin: 5.6 g/dL platelet:281.000/mL. Imaging studies of the patient showed subdural hemorrhage on the right side on computed tomography of the brain (figure-2) and an appearance compatible with alveolar hemorrhage on thorax imaging (figure-3). He was hospitalized in the intensive care unit.

Figure 1



Figure1 :Ecchymosis in the gluteal area

Figure 2





Figure 2: Subdural heamatoma on the right

Figure 3

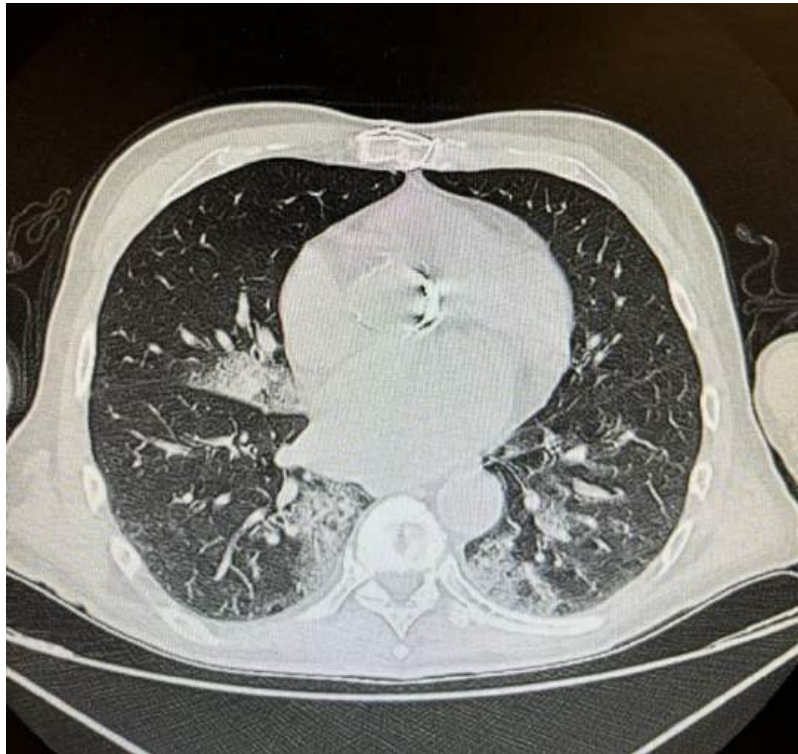


Figure 3: Alveolar hemorrhage

Conclusions: Data on the concomitant use of lincosamide group antibiotics and warfarin are limited. In our case, gastrointestinal bleeding, subdural hemorrhage and alveolar hemorrhage were detected in this patient who presented with diffuse ecchymotic areas in the gluteal region due to the use of clindamycin, a lincosamide group antibiotic.

Keywords: Warfarin, subdural hemorrhage, alveolar hemorrhage

Ref No: 9533

Pub No: S-069

Fat Embolism Presenting with Respiratory Failure After Plastic Surgery: A Case Report

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Background and aim: Fat embolism syndrome (FES) can affect the circulatory, respiratory, and central nervous systems after multiple trauma or surgical procedures such as liposuction. Fat embolism after liposuction is a rare complication. Common manifestations of FES include pulmonary, central nervous system, and skin symptoms, usually occurring 12-72 hours after trauma. The most characteristic signs are hypoxemia, decreased level of consciousness, and petechial rash. Diagnosis is typically based on clinical signs, imaging results, and risk factors. This report presents the case of a 51-year-old woman who developed acute respiratory distress and cardiac arrest after liposuction, breast augmentation, and abdominoplasty.

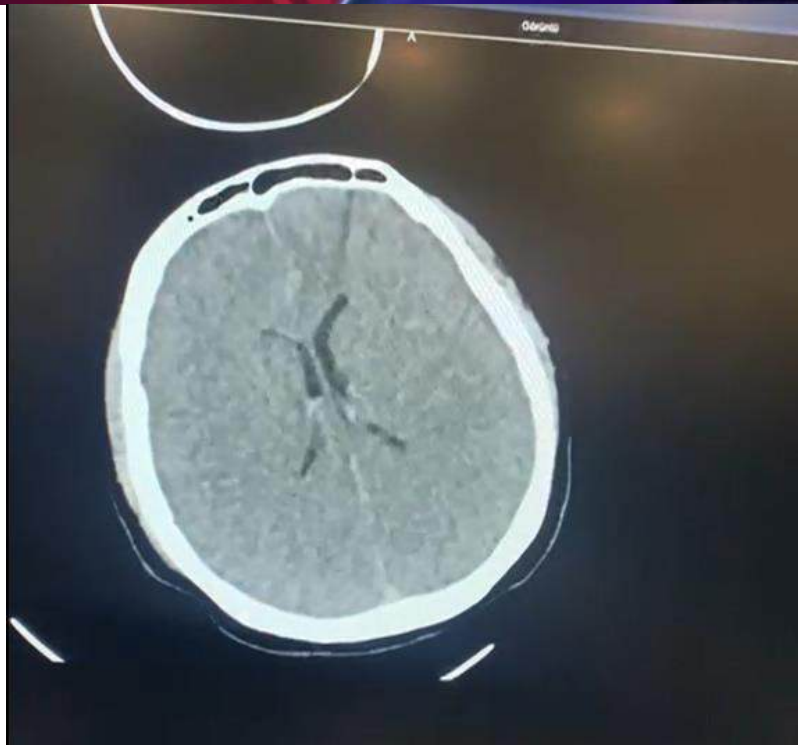
Case: A 51-year-old woman developed respiratory distress and cardiac arrest following liposuction, facelift, breast augmentation, and abdominoplasty. She was orotracheally intubated, and CPR was performed for 40 minutes. The patient was referred to our institution for intensive care. On arrival, her general condition was poor, intubated, and GCS was 3. Ecchymotic changes were observed on skin examination. Respiratory sounds were decreased, and normal heart sounds were heard in cardiovascular examination. ECG showed sinus tachycardia. Imaging and pulmonary CT-angiography showed no thrombo-embolic involvement. No contrast agent filling was observed in the cerebral vessels, and cerebral edema was noted. The patient was hospitalized in the intensive care unit, developed arrest during follow-up, and did not respond to CPR.

Fig 1



Ecchymotic changes are observed in the patient's body.

Fig 2



The patient had the appearance of pseudo-subarachnoid hemorrhage, cerebral edema.

Conclusions: Skin findings and central nervous system depression, along with a history of liposuction, suggested FES. Pulmonary fat embolism can lead to ARDS and serious complications. However, the PaO₂/FiO₂ ratio of 400 reduced the suspicion of ARDS in our patient. Timely diagnosis and treatment of FES are challenging. Gurd&Wilson's diagnostic criteria and Schonfeld's scoring scale may aid in diagnosis. Supportive care and respiratory support are crucial in treating fat embolism. Corticosteroids may reduce inflammation and improve oxygenation. Treatment can be complicated by infection and extrapulmonary thromboembolism.

Keywords: fat embolism syndrome, Liposuction Complications, Acute Respiratory Distress, Cerebral Edema, intensive care unit



Ref No: 9566

Pub No: S-102

URETHRAL FISTULA EXTENDING TO THE PRESSURE SORE

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Background and aim: Decubitus ulcers are a worldwide healthcare problem affecting tens of thousands of patients and costing more than one billion dollars annually. Predisposition to pressure ulcers results from a combination of external factors (pressure, friction, shear force and moisture) and internal factors (e.g. fever, malnutrition, anemia and endothelial dysfunction). Acquired urethral fistulas can be neoplastic, traumatic, caused by a foreign body or infection. They can also occur as a complication of penile surgery. In this article, we present a 56-year-old immobile male inmate who presented with the complaint of urine leakage from a pressure wound.

Case: A 56-year-old immobile male prisoner patient, presented with the complaints of urine leakage from his pressure wound for 3-4 days and a foreign body in the area. He was paraplegic due to spinal cord injury for 21 years. The patient was constantly using a foley catheter as a result of neurogenic bladder and monthly catheter changes were performed regularly. There were multiple pressure wounds of different sizes and depths in the gluteal area, with clean wound bases, without necrosis and/or inflammatory discharge. The tip of the foley catheter was visible through the skin at the wound base in the perineal area and urine was also observed to be coming from the same area. Abdominal computed tomography showed a full bladder and the defect extending to the skin starting from the membranous urethra level below the bladder. A consultation was requested from the urology department and the patient was hospitalized in the urology service for follow-up and treatment.

Conclusions: Pressure wounds can necrosise the skin and subcutaneous tissues completely and cause defects in organs such as the urethra. Pressure wounds can be prevented with regular care, but when they occur and complications develop, they cause mortality and morbidity. In our case, urethrocutaneous fistula, one of the complications of pressure ulcers, developed.

Keywords: urethral fistula, pressure sore



Ref No: 9572

Pub No:

STEVENS-JOHNSON SYNDROME INDUCED BY DRUGS

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Background and aim: Steven-Johnson syndrome (SJS) is rare but lifethreatening mucocutaneous reactions that usually occur due to drugs. The aim is to make prescribing physicians aware of SJS as a possible complication of treatment.

Case: A 43-year-old woman presented with a 4-day history of sore throat, fever, and cough. She reported widespread rashes that initiated from the palms 2 days ago. The patient had been undergoing opioid detoxification with naltrexone, trazodone, carbamazepine, and sulpiride for the past 20 days. Vital signs were mostly normal except for a fever of 38.3°C. She had dark red, non-blanchable macules with purpuric features across her body, more specifically on the face and around the mouth. Pink macules appeared on both palms. As well as, bullas with serous content were present on both plantar surfaces; the largest being 8 cm. Eroded and bleeding areas were also observed on the genital mucosa. Bilateral cervical and right inguinal lymphadenopathy was evident. White plaques were seen in the oropharynx. Her white blood cell count was elevated to $20.56 \times 10^9/L$, CRP to 302mg/dl, and procalcitonin to 1,04µg/L. Blood and urine cultures were negative, throat and vaginal cultures showed normal flora. Ultrasound revealed lymphadenopathy, EBV and CMV IgM markers were negative. A skin biopsy confirmed Stevens-Johnson syndrome. Carbamazepine was discontinued, the patient received treatment with methylprednisolone, cyclosporine, and supportive care. Oral lesions, which became painful, were managed with fluid and nutritional support. The patient's lesions healed with post-inflammatory hypopigmentation after one month. Carbamazepine was identified as the primary trigger for SJS. Therefore, the patient was advised against using carbamazepine again and to inform future healthcare providers accordingly.

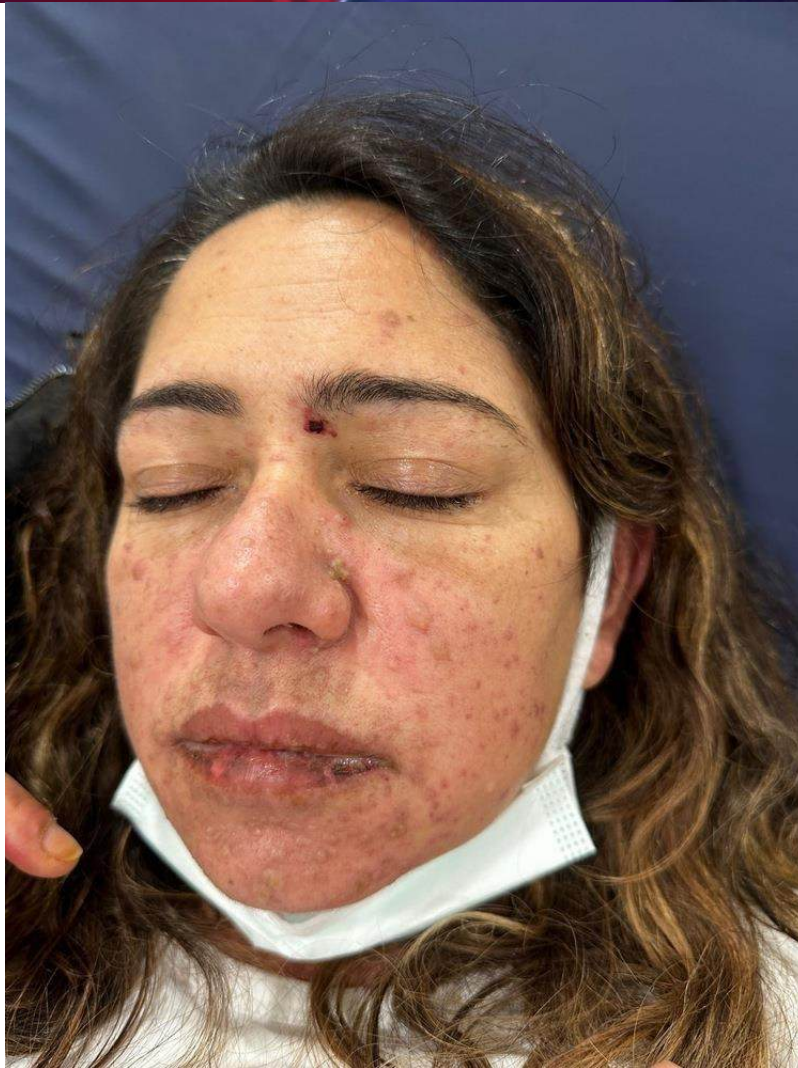
Photo 1



Photo 2



Photo 3



Conclusions: SJS is a potentially life-threatening condition strongly associated with certain medications. Management includes discontinuing the inducing drug, providing supportive care, and using corticosteroids can be effective in some cases. Cyclosporine may be beneficial in severe cases.

Keywords: Steven-Johnson syndrome, Carbamazepine



Ref No: 9669

Pub No: S-089

Neonatal Food Aspiration and Respiratory Distress: Rapid Intervention and Treatment Process

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Background and aim: Food aspiration in neonates is a critical emergency that necessitates prompt intervention. In this presentation, we examine the intervention timeline and treatment outcomes of a 7-day-old neonate experiencing food aspiration. This case underscores the importance of rapid emergency medical services (EMS) response, demonstrating the positive impact of timely intervention by EMS on neonatal aspiration outcomes.

Case: A 7-day-old female neonate, with a birth weight of 3950 grams, developed sudden respiratory distress and cyanosis while being fed formula by her mother at home. In response, the family contacted the emergency services (112). An EMS team arrived at the scene within 3 minutes of the emergency call. Upon evaluation, the team observed the neonate's pulse to be filiform, skin cyanotic, and breathing agonal. During the assessment, the team gathered detailed information from the family, learning that the mother had given an additional 30 ml of formula beyond the routine 30 ml. This led to the suspicion of airway obstruction due to food aspiration. Following the initial assessment, the team promptly performed the Heimlich maneuver, successfully clearing the aspirate from the neonate's airway. After the maneuver, the infant began to cry, her skin color quickly turned pink, and her pulse became more palpable. The infant was transported to the nearest state hospital, arriving within 10 minutes of the emergency call. Initial hospital evaluations revealed a heart rate of 140 bpm, which had returned to normal.

Conclusions: Aspiration in the neonatal period is a significant cause of morbidity and mortality. EMS, particularly the rapid arrival and intervention of EMS, plays a critical role in reducing these risks. Therefore, protocols developed for pre-hospital care in neonatal populations should prioritize strategies aimed at minimizing response times, which can have a substantial impact on reducing mortality and morbidity in this vulnerable age group.

Keywords: Neonatal aspiration, Emergency Medical Service, Heimlich maneuver, Respiratory distress



Ref No: 9760

Pub No: S-074

Leptospirosis

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Background and aim: Leptospirosis, caused by the *Leptospira* spirochetes, is the most common zoonosis worldwide, affecting both tropical and temperate regions. Mammals are the primary reservoirs, and infection occurs through contact with contaminated soil, water, or food. While most cases are mild or asymptomatic, some can be severe and fatal. The two main forms are anicteric and jaundice leptospirosis. Here, we report a case of leptospirosis presenting with jaundice (1).

Case: A 46-year-old man presents with malaise, fever, abdominal pain, sweating and jaundice. In his anamnesis, it was learned that his complaints started in a period of 10-14 days, jaundice was added 2-3 days ago, his urine became darker and his occupation was animal husbandry. He had brucella 4 years ago. No active drug use. On physical examination, GCS was 15, consciousness was clear, oriented, coherent, TA: 125/62 mm/Hg, temperature 36.4 °C, pulse 76/min, oxygen saturation %99, respiratory rate 15/min, sclera was hemorrhagic and icteric, skin was icteric and other examination findings were normal. ECG was 80 beats/min sinus rhythm. The results of the patient's investigations are shown in table-1. Abdominal USG, non-contrast abdominal CT and chest radiography did not reveal any pathology. The patient was consulted to internal and infectious diseases with the prediagnoses of brucella, multiorgan failure, disseminated intravascular coagulation, leptospirosis, hepatitis, Crimean-Congo hemorrhagic fever and malignancy. He was admitted to the internal medicine ward. It was learned that the patient was diagnosed as leptospira infection by microscopic agglutination test performed during hospitalization.

Table-1: Laboratory Tests

Laboratory Tests			
Hemogram	Metabolic Panel	Urinalysis	Coagulation Tests
White blood cells 15.37 10 ³ /μL	Glucose 121 mg/dL	Color yellow	Prothrombin time 9.8 sec
Neutrophil 12.73 10 ³ /μL	Urea 141.7 mg/dL	Heme 3+	INR 1
Lymphocyte 0.81 10 ³ /μL	Creatinine 4.76 mg/dL	Leukocyte esterase Negative	Thromboplastin time 42.6 sec
Hemoglobin 12.5 g/dL	ALT 87 IU/L	Bilirubin 3+	Fibrinogen 800 mg/dL

Platelet 34 10 ³ /μL	AST 76 IU/L	Protein 2+	D-dimer 1.72 ug FEU/ml
	Total bilirubin 32.5 mg/Dl	Nitrite Negative	
	Direct bilirubin 22.94 mg/dL	Red blood cells 1097	
	Amylase 274 IU/L	White blood cells 39	
	CRP 204.7 mg/L		

Conclusions: Leptospirosis with jaundice (Weil's disease) is observed in 5-10% of patients and has a mortality rate of 5-15% (1). In conclusion, it is one of the diseases that should be kept in mind in the differential diagnosis in patients with fever, jaundice, acute renal failure and thrombocytopenia.

Keywords: Leptospirosis, Weil's disease, Zoonosis



Ref No: 9767
Pub No: S-103

The Dark Side of Dermal Fillers: A Case of Ischemic Stroke After Lip Augmentation

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Background and aim: According to the World Health Organization definition, stroke is a clinical syndrome characterized by the rapid onset of signs and symptoms of focal loss of cerebral function as a result of impaired cerebral blood flow without any apparent cause other than vascular causes, and these symptoms persist for more than 24 hours. Although the most common cause of ischemic stroke is cardioembolic in nature, much rarer causes can also cause cerebral ischemia, one of which is embolization of the filler after lip augmentation. In this case report, we present a patient with lacunar ischemic infarction after lip augmentation.

Case: A 48-year-old woman presented with a complaint of numbness in the left half of the face that started suddenly 1 hour before admission and subsequent loss of sensation. Her complaint was accompanied by mild headache. When the patient's history was detailed, it was learned that dermal filling application was performed on the lip 3 days ago. Facial nerve examination revealed erasure in the left nasolabial fold. Tactile examination revealed hypoesthesia on the left side of the face. Cerebellar examination was normal. Computed tomography imaging of the brain showed no pathologic findings, however punctate diffusion restriction was found in magnetic resonance imaging. There was a hyperintense nodular lesion (demyelinating plaque?, ischemic-gliotic focus?) in the right periventricular deep white matter approximately 6.5 mm in size on T2AGs and FLAIR sequence in Cranial MRI.

Conclusions: One quarter of all ischemic strokes are cardioembolic in nature, with embolization of a mural thrombus being the most common mechanism in patients with atrial fibrillation. In addition to all these, intravascular filling material application, although rare, can also be a cause of ischemic stroke. In our patient, no unstable plaque that could cause ischemia was detected, no risk factors were found and recent lip filling was the leading cause of ischemia.

Keywords: dermal fillers, ischemic stroke, lip augmentation



Ref No: 9804
Pub No: S-003

Unexpected etiology in a pediatric patient presenting with a fall: Homocysteinemia

Fatih Mehmet Aksoy¹, Nurullah İshak Işık¹

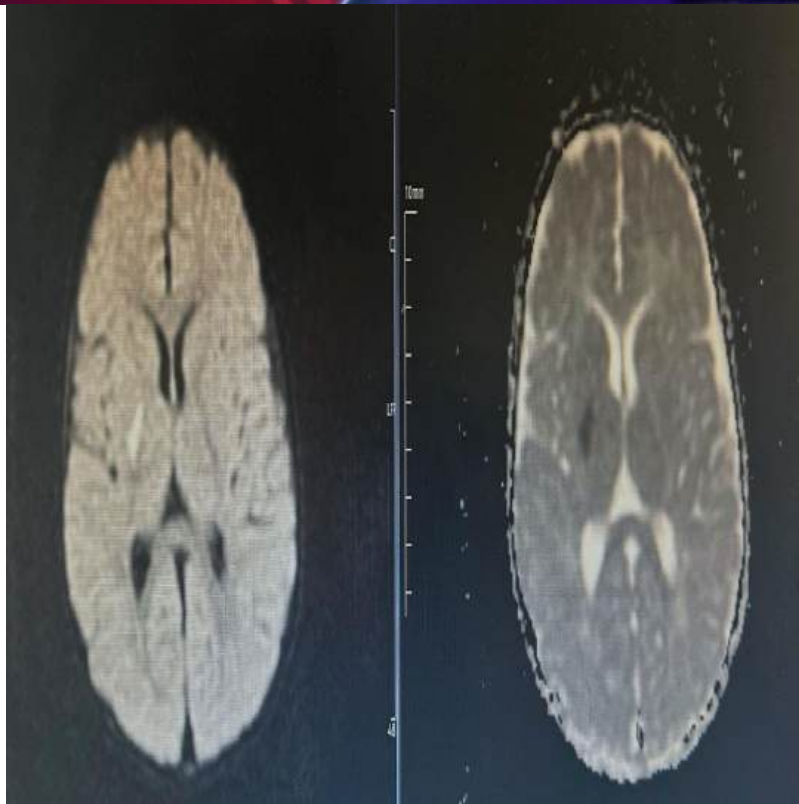
¹Etilik Şehir Hastanesi

Fatih Mehmet Aksoy / Etilik Şehir Hastanesi

Background and aim: The first place patients will turn to after a fall is the "Emergency Department." This situation, which can involve any age group, may have a wide range of underlying etiologies. In such cases, the emergency physician must consider all possible diagnoses. This is especially important in situations where the event is not remembered, or in populations that cannot express themselves, such as infants. In our case, we want to draw attention to a condition that is rarely considered due to its low incidence. In children presenting with a fall, we highlight ischemic cerebrovascular events and an undiagnosed metabolic condition in its etiology: Homocystinemia.

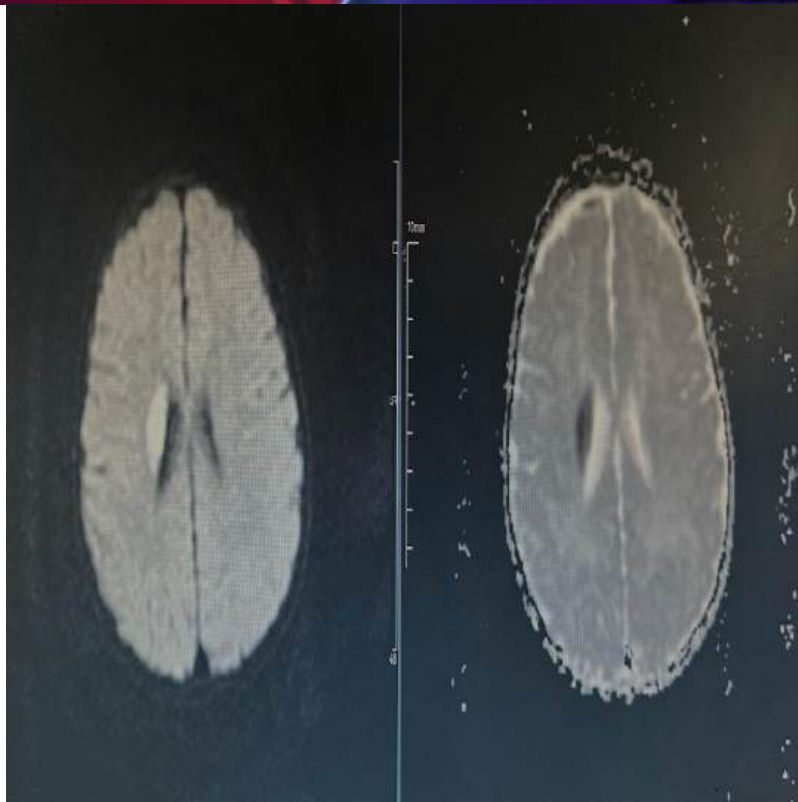
Case: A 9-month-old male infant was brought to the emergency department by his parents following a fall from a couch onto a hard surface, presenting with decreased unilateral movements and agitation. On physical examination, the patient's eyes were spontaneously open, alert to the surroundings, and agitated. Inspection revealed no active bleeding, skin hematoma, or musculoskeletal deformity. Neurological examination revealed pupils that were equal and reactive to light. The patient was able to hold his head in both supine and prone positions. There were no motor or sensory deficits in the right upper and lower extremities. However, there were total motor and sensory deficits in the left upper and lower extremities. Other system examinations were normal. Routine hemogram and biochemical laboratory tests, as well as non-contrast brain CT and X-rays, revealed no pathology. Diffusion MRI showed restricted diffusion at the level of the right basal ganglia, involving part of the internal capsule. The patient was admitted to the pediatric ward. Further investigations led to the diagnosis of homocystinemia.

Photo-1



The diffusion restriction observed on the diffusion MRI

Photo-2



The diffusion restriction observed on the diffusion MRI

Conclusions: Falls are a situation that can lead patients of all age groups to emergency departments based on various etiologies. Despite the low incidence in pediatric patients, ischemic cerebrovascular events and metabolic disorders should be considered.

Keywords: Homocysteinemia, fall, infant, stroke



Ref No: 9848

Pub No: S-053

Bone marrow suppression due to colchicine poisoning

Asim Bedri Erdem¹

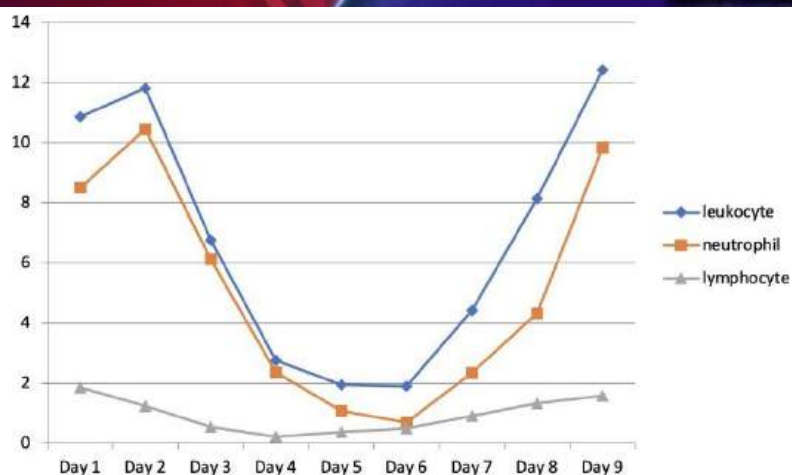
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Background and aim: Colchicine is a narrow therapeutic range drug used in the treatment of many inflammatory diseases. The primary mechanism of colchicine is binding to intracellular tubulin and inhibiting microtubule polymerization. In this case, we would like to present a patient who developed bone marrow suppression after receiving high dose colchicine for suicidal purposes.

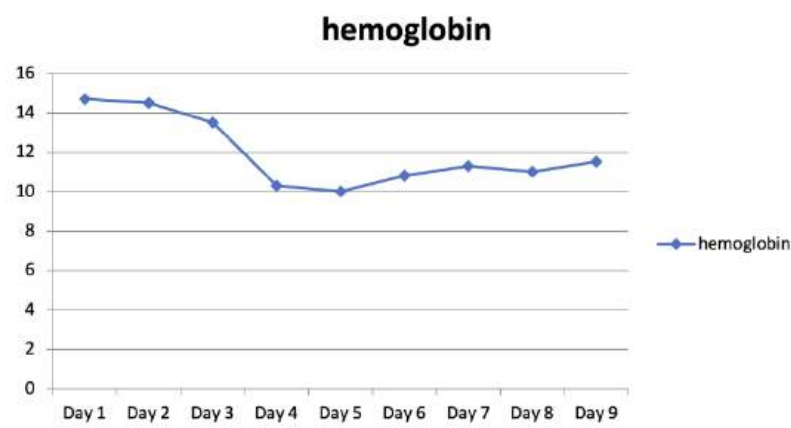
Case: A 54-year-old female patient was admitted to the emergency department after taking 50 colchicine tablets (25 gram) 9 hours ago for suicide purposes. She had no chronic disease other than hypertension. She had nausea and vomiting. The general condition was moderately poor. Consciousness was clear, oriented and cooperative. Vital sign was stable and Glasgow coma score was 15. She was breathing spontaneously and breathing sounds were normal. There was no abdominal defense rebound. The blood tests were revealed; high levels of leukocytes ($10,86 \times 10^3 / L$), neutrophils ($8,5 \times 10^3 / L$). Hemoglobin (14,7 g/L), platelet count ($281 \times 10^9 / L$) and other blood tests were normal. The patient was administered repeated doses of activated charcoal. Increased International Normalized Ratio (INR) and cardiogenic shock symptoms, which are poor clinical outcome symptoms of colchicine intoxication, were not detected. During the patient's follow-up, a decrease in the number of neutrophils, platelets and hemoglobin was detected (Figure 1,2,3). The patient was evaluated as suffering from bone marrow suppression due to colchicine intoxication. She was treated with platelet replacement on the 4th day of admission. The patient, whose complete blood count became normal on the 9th day of admission, was discharged on the 17th day of admission, with her vitals and hemodynamic stable and her examinations normal.

Figure 1



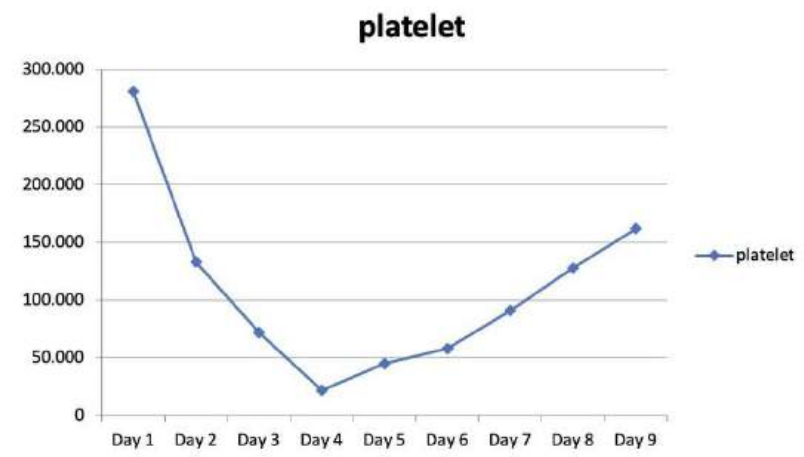
The chart shows the change in the number of leukocytes, neutrophils and lymphocytes over the days.

Figure 2



The chart shows the change in the number of hemoglobin levels over the days.

Figure 3



The chart shows the change in the number of platelet levels over the days.

Conclusions: Admission to the emergency department due to colchicine intoxication is very rare and should be mortal. Clinicians should be careful about possible complications such as bone marrow suppression.

Keywords: colchicine, intoxication, bone marrow suppression, emergency



Ref No: 9871

Pub No: S-084

Aggressive Approach in the Treatment of Diabetic Ketoacidosis

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Soner Yeşilyurt / Taksim Training and Research Hospital, Department of Internal Medicine

Background and aim: Diabetic ketoacidosis (DKA) is a common endocrine emergency in emergency departments and internal medicine clinics. Management guidelines, including those from the American Diabetes Association (ADA), recommend fluid replacement, electrolyte correction, and insulin therapy as the primary treatment (1). The ADA guidelines suggest initial treatment with isotonic saline, especially in hypovolemic patients, followed by insulin therapy. This typically starts with a 0.1 U/kg intravenous bolus, followed by a continuous infusion at 0.1 U/kg/hour (1, 2). However, in some cases, more aggressive insulin doses may expedite the resolution of ketoacidosis (3). For example, administering an insulin bolus of 0.15 U/kg in severe DKA can improve acidosis correction (4).

Case: A 27-year-old female patient, diagnosed with type 1 diabetes, presented to the emergency department with complaints of nausea and vomiting. The patient reported an 8-year history of diabetes and regular insulin use. Data obtained from the national health automation system (e-nabız) indicated that the patient was using 20 U of Lantus (insulin glargine) and Novorapid (insulin aspart). Laboratory results revealed a blood gas pH of 6.8, bicarbonate level of 8 mEq/L, and three-plus ketonuria in the urine, confirming the diagnosis of DKA. Initial treatment included isotonic fluid replacement. The patient received an intravenous insulin bolus of 0.15 U/kg, followed by a continuous infusion of 0.1 U/kg/hour insulin. Given the stable potassium level, the patient was also started on bicarbonate infusion (1, 2). After twelve hours of treatment, follow-up blood gas analysis showed a pH of 7.32 bicarbonate level of 19 mEq/L, and ketone negativity in the urine, indicating resolution of ketoacidosis. The patient was admitted to the internal medicine ward.

Conclusions: In DKA management, aggressive insulin therapy may shorten the resolution time, particularly in selected patients. Close monitoring and individualized treatment strategies are key to optimizing outcomes and minimizing hospital stays.

Keywords: Diabetes Mellitus, Diabetic Ketoacidosis, Insulin



Ref No: 9955

Pub No: S-018

Pseudo-Bartter Syndrome Presenting in a Patient with a Gastric Balloon: Case Report

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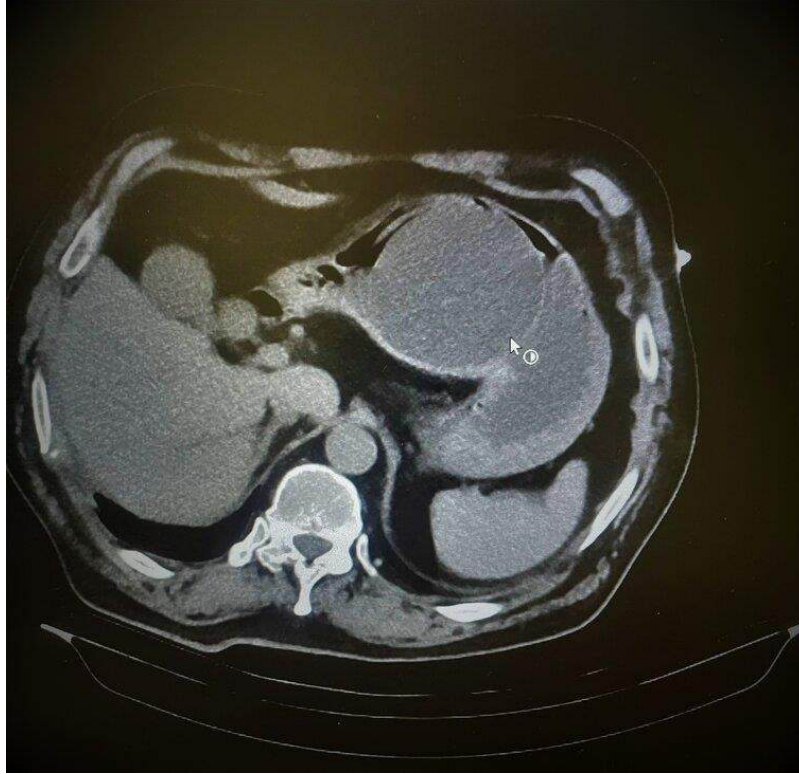
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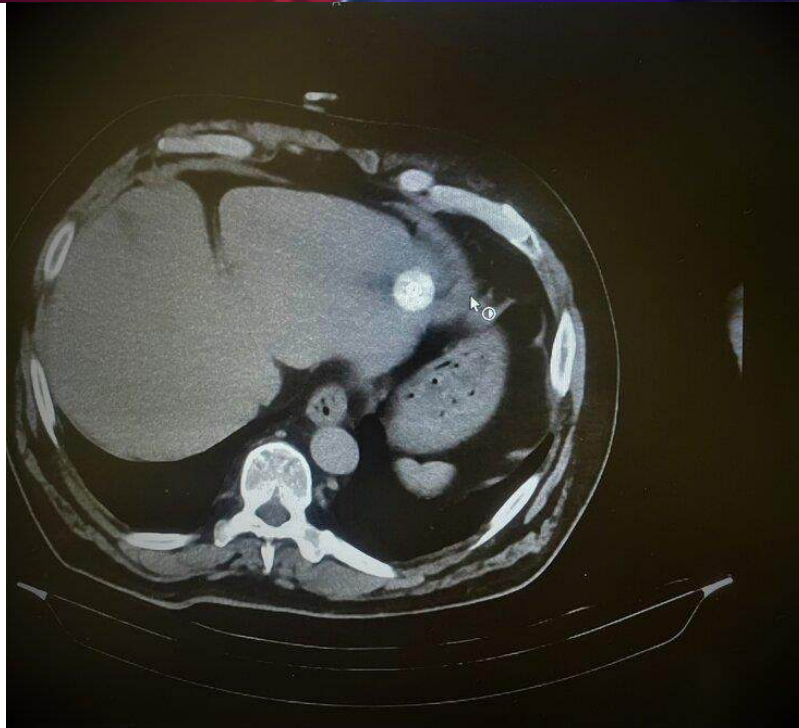
Ertuğrul Altınbilek / Sisli Hamidiye Etfal Training and Research Hospital, Department of Emergency Medicine; Istanbul, Turkey

Background and aim: Pseudo-Bartter syndrome (PBS) is a condition that presents with clinical and biochemical features similar to Bartter syndrome, but without an underlying primary renal pathology. This case report describes a patient who developed PBS following the placement of a gastric balloon for obesity treatment.

Case: A 56-year-old male patient was admitted to the emergency department with symptoms of altered general condition, altered consciousness, nausea, vomiting, and urinary incontinence. The patient reported that he had undergone gastric balloon placement for obesity treatment about a week ago and had experienced increased nausea and vomiting, particularly after eating, over the past day or two. Additionally, it was noted that there had been no significant weight loss since the balloon placement. Physical examination revealed that the patient's general condition was poor, with a drowsy and non-cooperative level of consciousness. Signs of dehydration, such as dry skin and mucous membranes, were evident. The following measurements were recorded. Serum Sodium: 133 mEq/L - Serum Potassium: 2.27 mEq/L - Serum Chloride: 62 mEq/L These findings were consistent with hypokalemic, hypochloremic metabolic alkThis case highlights the potential for Pseudo-Bartter syndrome to develop in patients who have undergone gastric balloon placement. Vomiting and resultant fluid-electrolyte imbalances following balloon placement can lead to PBS. PBS is a reversible condition if the underlying issue is addressed. Therefore, PBS should be considered in patients with a gastric balloon who develop persistent vomiting and electrolyte disturbances, and appropriate treatment should be promptly initiated.alosis, indicative of a Bartter syndrome-like picture.







Conclusions: Conclusion: The development of Pseudo-Bartter syndrome in patients with a gastric balloon is a rare condition; however, timely diagnosis and treatment can facilitate rapid recovery. This case serves as an important reminder of the potential for PBS to develop in patients with gastric balloons.

Keywords: Pseudo-Bartter syndrome (PBS), Hypokalemic, Hypochloremic Metabolic Alkalosis



Ref No: 9971

Pub No: S-085

Chronic Subdural Hematoma In A Patient Presenting With Hypoglycemia

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Background and aim: Geriatric patients are a difficult group to manage. Comorbidity, low treatment compliance, impaired capability to fully express themselves and their complaints and their dependance on external care are the main factors which contribute to this problem. We see common cases of atypical presenting complaints for many diseases and discover potentially life-threatening diseases, sometimes more than one at the same time. With this case report, we aim to present such a patient, in which a diagnosis of chronic subdural hematoma was established without overt findings of neurological deterioration, although the presenting complaint was hypoglycemia.

Case: The patient was an 89 years old male, with preexisting hypertension, diabetes and prostate hyperplasia. Medication history revealed use of insulin glargine, trandolapril and metoprolol. Patient was brought to our ER by Ambulance because of low blood glucose. Patient relatives reported a blood sugar of 33 mg/dL at home. The paramedics had initiated promptly an intravenous infusion of dextrose. The patient was responsive and oriented to time and place. Neurological examination was normal. With detailed questioning, the relatives stated that the patient had been unable to speak coherently for a short time at home but this problem had been resolved by itself. This was initially attributed to hypoglycemia, for which rapid onset of neurological findings is typical. Nonetheless neuroimaging was performed, due to the geriatric status of the patient. The CT revealed a subdural effusion with a diameter of 14 millimeters at its thickest point on the right side. The patient nor the relatives reported of an occurrence of head trauma. This effusion was attributed to a chronic subdural hematoma and the patient was consulted to Neurosurgery. Following the consultation, the patient was admitted the neurosurgical ward for non-operative management.

Conclusions: Clinicians should keep in mind that geriatric patients may present with atypical presentations, as in our patient.





POSTER ABSTRACTS

Ref No: 1109

Pub No: P-073

CHALLENGING DIAGNOSIS IN A PATIENT WITH MENTAL RETARDATION: RISPERIDONE-INDUCED NEUROLEPTIC MALIGNANT SYNDROME

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Nafize Yılmaz Uyanık / University of Health Sciences, Haydarpaşa Numune Training and Research Hospital, Department of Emergency Medicine, Istanbul, Türkiye.

Background and aim: Neuroleptic malignant syndrome (NMS) is a severe condition linked to dopamine receptor antagonists or sudden withdrawal of dopaminergic drugs. It presents with altered mental status, muscle rigidity, fever, and autonomic dysfunction. While it can occur with any antipsychotic, it is more common with typical antipsychotics. We report a case of risperidone-induced NMS in a patient with mental retardation.

Case: A 27-year-old female with epilepsy and mental retardation, who had stopped her anti-epileptic medication, presented with high fever and disorientation. She had a history of excessive sleepiness, slowed movements, and high fever over the past three days. Two weeks prior, she had been treated with risperidone and hydroxyzine for aggression. On admission, her GCS was 9 (G4M3V2), and she exhibited rigidity, particularly in the left upper extremity. Laboratory tests showed leukocytes $15 \times 10^3/\mu\text{L}$, CRP 22 mg/L, urea 62 mg/dL, creatinine 1.1 mg/dL, sodium 45 mEq/L and creatine kinase (CK) 17.347 IU/L. Other laboratory values were normal. Brain imaging, lung scan, and urinalysis were normal. Infectious, neurological, and internal causes were ruled out, and she was diagnosed with risperidone-induced neuroleptic malignant syndrome (NMS). The patient was admitted to the ICU and discharged after recovery on the sixth day.

Conclusions: NMS most commonly affects men under 40, with a mortality rate of 10-20%. Differential diagnoses include neurological and metabolic disorders, CNS infections, lithium intoxication, malignant catatonia, anticholinergic syndrome, malignant hyperthermia, and substance-related disorders. In our case, NMS was induced by risperidone. In drug-induced NMS, the basis of treatment is supportive therapy. Supportive therapy includes aggressive cooling, fluid replacement and correction of electrolyte imbalances. Patients with severe hyperthermia and rigidity should be admitted to the ICU for close monitoring of autonomic dysfunction and complications. Treatment involves bromocriptine, a dopamine agonist, administered orally or via nasogastric tube (NG).

Keywords: risperidone, drug induced NMS, mental retardation, ICU, high mortality

References



Ref No: 1169

Pub No: P-091

"Without Malignancy: Superior Vena Cava Syndrome Beyond Oncological Complications"

serhat şimşek¹, sulenur sever¹, suna eraybar¹, Mehtap Bulut¹

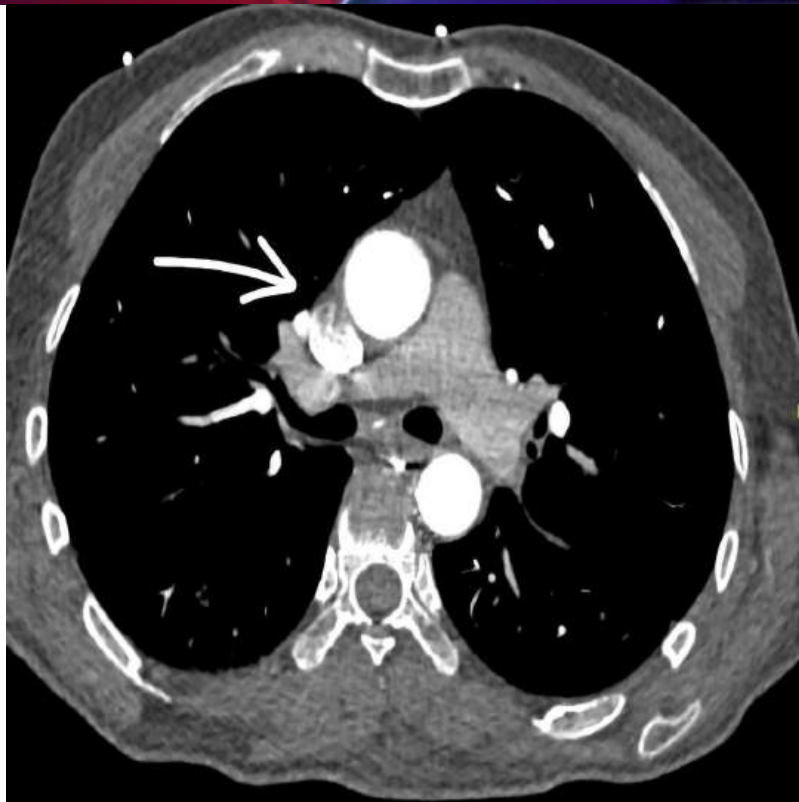
¹Bursa Şehir Hastanesi

serhat şimşek / Bursa Şehir Hastanesi

Background and aim: Malignancy is the most common etiological factor for SVCS, responsible for approximately 70% of cases. Non-malignant etiologies include the use of central venous catheters, mediastinal fibrosis, infections, vasculitis, and benign tumors. The most commonly observed clinical symptoms include edema of the face and neck, venous engorgement in the neck and chest, and dizziness that worsens with the patient's forward bending. While malignancy-related SVCS is well recognized, non-malignant causes are rarer and can pose challenges in the diagnostic process. We aim to highlight this condition by presenting a case of rare non-malignant SVCS.

Case: A 48-year-old female patient presented with complaints of back pain, weakness, and a sensation of swelling in both upper extremities lasting for two weeks. The patient's medical history revealed no known conditions other than cervical disc herniation. Examination revealed swelling in both upper extremities, with palpable pulses in both upper extremities. Laboratory tests revealed CK-MB: 103 U/L, troponin: 234 ng/L, and CK: 3449 U/L. Contrast-enhanced thoracic CT detected thrombi at both the superior vena cava and inferior vena cava levels. The patient, planned for thrombolytic therapy, was admitted to the cardiothoracic intensive care unit.

Figure 1: Axial computed tomography image showing the region indicated by the white arrow, which represents the superior vena cava thrombus.



Axial computed tomography image showing the region indicated by the white arrow, which represents the inferior vena cava thrombus.



Conclusions: In this case, the patient's symptoms lasting for two weeks and the imaging results showing a thrombus completely filling the lumen highlight the necessity for thrombolytic therapy. Thrombolytic treatment is typically initiated within 4-5 days from the onset of symptoms; however, in cases with large thrombi completely occluding the lumen, the treatment process may require a more comprehensive assessment and intervention. In this patient's condition, administering thrombolytic therapy may provide potential benefits for symptom management and thrombus resolution. In conclusion, the etiology of SVCS can encompass a wide range of causes, and it is important to consider non-malignant factors. A multidisciplinary approach and early intervention in the management of such cases can enhance treatment effectiveness and improve patient prognosis.

Keywords: NONMALIGNANCY VCSS



Ref No: 1284

Pub No: P-109

SYNCOPE AND PULMONARY EMBOLISM

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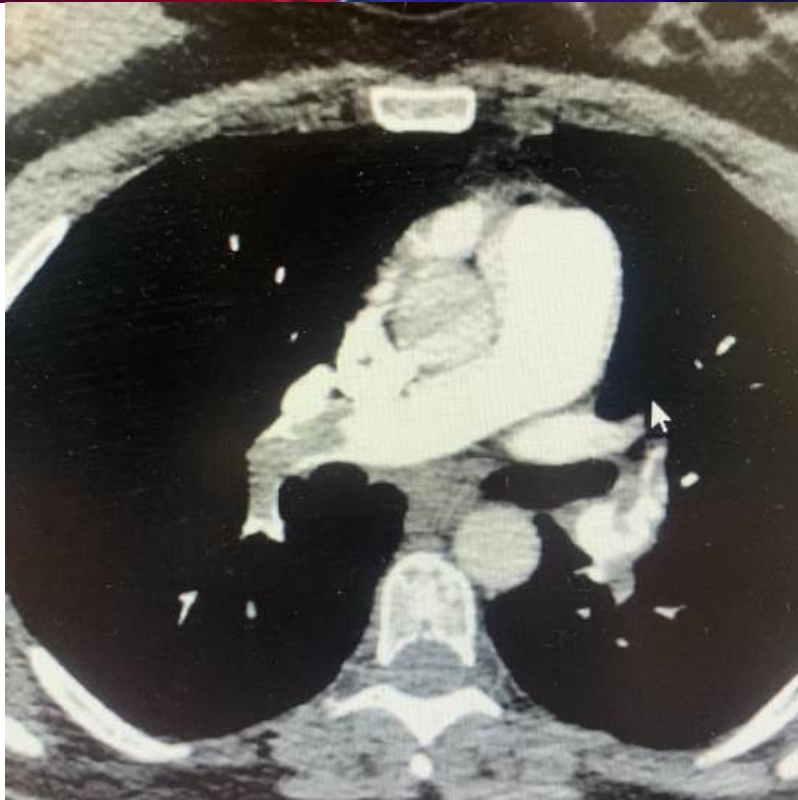
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Background and aim: A pulmonary embolism occurs when a clump of material, most often a blood clot, gets stuck in an artery in the lungs, blocking the flow of blood. Blood clots most commonly come from the deep veins of your legs, a condition known as deep vein thrombosis. Pulmonary embolism has a mortality rate of 25-30% if left untreated; however, with treatment, the mortality rate drops to 2-8%. The pathogenesis involves the 'Virchow Triad,' which consists of 'stasis, hypercoagulation, and endothelial damage. Trauma, oral contraceptive use, long-term travel, pregnancy, immobilization, major surgery, malignancy, obesity, antithrombin III deficiency, protein C-S deficiency, and Factor V Leiden mutation are among the other causes of pulmonary embolism.

Case: A 39-year-old female patient was brought to the emergency department by her family with a history of fainting three times during the day and shortness of breath. She has no known comorbidities. Vital signs: Blood pressure: 113/85 mm/Hg Pulse: 121 Temperature: 36.7°C Oxygen saturation: 78% Physical examination: No significant rales or wheezes in lung sounds ECG: Sinus tachycardia Laboratory results: Hb: 14 pH: 7.39 pCO₂: 29 pO₂: 59 Lactate: 3 INR: 1 Troponin: 299 (reference range: 0-11) D-Dimer: 9 (reference range: 0-0.5) Wells Score: 4.5 The patient underwent a CT pulmonary angiography with a preliminary diagnosis of pulmonary embolism. CT Pulmonary Angiography: Filling defects suggestive of thrombus are present in the lobar and segmental branches of the bilateral pulmonary arteries. The patient was referred to an external center with a Coronary Intensive Care Unit for thrombolytic treatment.

PULMONARY EMBOLISM CT ANGIOGRAPHY



Conclusions: Pulmonary embolism is a life-threatening condition that requires prompt diagnosis. It should be considered in emergencies for patients presenting with syncope. The most common ECG finding in these patients is sinus tachycardia. Monitoring these patients and providing them with oxygen support is of vital importance.

Keywords: syncope, wells, embolism, dyspnea, tachycardia



Ref No: 1363

Pub No:

MAD HONEY POISONING

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¹KARTAL DR. LÜTFİ KIRDAR ŞEHİR HASTANESİ

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Background and aim: Introduction: 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. 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

MAD HONEY POISONING

Kartal Dr. Lütfi Kırdar Şehir Hastanesi, Acil Tıp Anabilim Dalı, İstanbul

Introduction: 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. 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. Arterial blood pressure; 80/50 mmHg, heart rate was measured as 39 min. 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. Electrocardiography was found to be compatible with sinus bradycardia. Atropine 0,5 mg was administered intravenously. Control arterial blood pressure was measured as 120/60 and heart rate as 70. The patient, whose symptoms regressed after 6 hours of close follow-up, was discharged verbally.

intro and case

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mad honey poisoning

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Conclusions: Discussion: 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.

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Keywords: mad honey poisoning, bradycardia, vomiting, dizziness

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conclusions

Keywords: mad honey poisoning, bradycardia, vomiting, dizziness

Ref No: 1399

Pub No: P-053

AORTIC RUPTURE AFTER HIGH ENERGY TRAUMA

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Background and aim: Major blunt chest trauma can lead to aortic injury. Most of these cases are in the form of acute traumatic aortic rupture. Acute aortic rupture has a very high mortality rate. 95-98% of patients without surgical correction are lost. Less commonly, a chronic post-traumatic aortic pseudoaneurysm may develop after a blunt chest trauma in a 3-week period. We will discuss a case of acute aortic rupture following high-energy trauma.

Case: A 19-year-old male patient presented to our emergency department after a motorcycle accident. The patient was conscious, oriented, and cooperative. There were no known diseases or medication use. On physical examination upon arrival, there was tenderness on the upper chest and left hip. Vital signs were as follows: blood pressure 130/80 mmHg, pulse 108 beats per minute, temperature 36.4°C, and oxygen saturation 96%. FAST ultrasound did not detect free fluid in the patient. CT images, taken due to high-energy trauma, revealed a sternal fracture, a rupture in the thoracic aorta, and a left femur fracture. The patient, consulted with cardiothoracic surgery and orthopedics, was urgently operated on by cardiothoracic surgery. Post-operatively, the patient was discharged with recovery and continues to attend follow-up visits in the outpatient clinic.

Figure 1



aort rupture



Figure 2



sternal fracture

Conclusions: Traumatic aortic rupture is a fatal injury. The most common cause of these injuries is blunt trauma resulting from high-speed motor vehicle accidents. Symptoms and signs of aortic rupture are often non-specific and are frequently masked by associated injuries. Chest and back pain, as well as dyspnea, are usually present but are often attributed to chest wall injuries. Early recognition and prompt surgical intervention are the only treatment options for traumatic aortic rupture. In high-energy blunt trauma cases, traumatic aortic rupture should be considered in the differential diagnosis.

Keywords: Aortic rupture, blunt trauma, sternal fracture



Ref No: 1516

Pub No: P-103

Intracranial Hemorrhage Due To NOAC In A Hemodialysis Patient

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Background and aim: Oral anticoagulants (OACs), are widely used for long-term prevention and treatment of venous and arterial thromboembolism. Until recently, vitamin K antagonists, such as warfarin, were the only available oral anticoagulants. This situation changed with the recent introduction of the non-vitamin K antagonist oral anticoagulants (NOACs), which include dabigatran, rivaroxaban, apixaban, and edoxaban. Moreover, the NOACs are associated with significantly less intracranial bleeding than warfarin. This is an important advantage because bleeding into the brain is the most feared complication of anticoagulation therapy.

Case: A 46-year-old woman presented to the emergency department (ED) with persistent headache for 10 days and feeling discomfort during routine hemodialysis. Her vital signs were 140/80 SpO₂ 98, HR 87, GCS 15. On examination there was no significant finding during neurologic examination all reflexes and motor functions were normal. Laboratory results are: WBC 8,890*3/nl, HGB 11,9 g/dl, platelet 210.000, Glucose 233mg/dL, eGFR 6, CRP 79,06 pH 7,34. Due to chronic kidney failure patient has left arm avf and had a history of thromboembolism due to jugular vein catheterization. Due to thromboembolism patient was taking rivaroxaban. Brain CT was performed, patient has subacute frontoparietal subdural hematoma, shifting at midline to right shifting degree was 7-8mm left 3rd ventricle got compressed. The patient was consulted with Neurosurgery, had observed for 4 hours in ED then hospitalized for emergency decompression operation. Because of patient was under NOAC treatment; and developed mental status decline and enlargement at hemorrhage site concentrate of 4 coagulation factors (PCC) had been applied at ED at 25-50iu/kg dosage.

Conclusions: Even clinical and laboratory finding suggest NOACs are more safe than Warfarin therapy, still clinician has to suspect about ICH even patients complains are persistent for 10 days. And due to active hemorrhage. Even there is no accessible antidote for rivaroxaban PCCs are only option for clinician.

Keywords: Headache, New gen oral anticoagulants, Subdural hematoma, Hemodialysis, Chronic kidney failure

Ref No: 1624

Pub No: P-088

Unusual Complication: Pneumomediastinum After a Dental Filling Procedure

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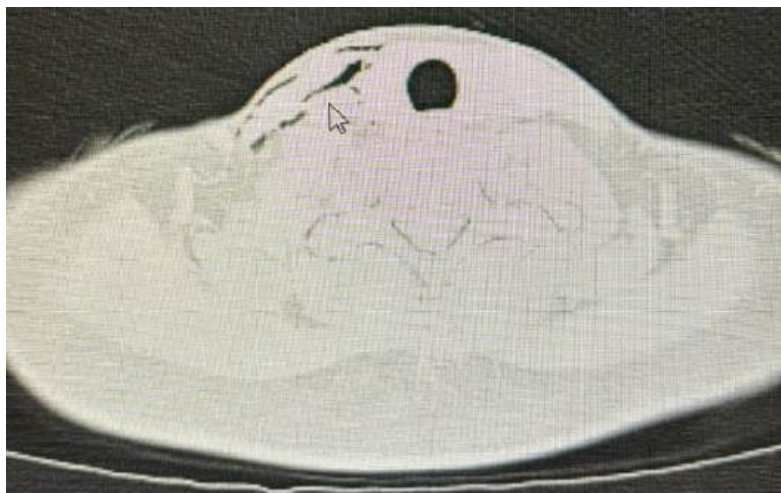
²Bursa Şehir Hastanesi

Mahmut Alper, Şule, Ebrar, Suna, Mehtap GULOGLU, SEVER, MARAL, ERAYBAR ATMACA, BULUT / University of Health Sciences, Bursa Faculty of Medicine, Bursa Şehir Hospital, Department of Emergency Medicine

Background and aim: Pneumomediastinum occurs due to the passage of air into the mediastinum for various reasons such as interstitial lung disease, post-surgical conditions. Air may enter the mediastinum via the ascending route from the abdomen through the hiatus, the descending route from the neck, through the pleura in thoracic pathologies, or may directly accumulate within the mediastinum in cases of primary mediastinal pathologies. This case will address pneumomediastinum that developed after a dental filling procedure.

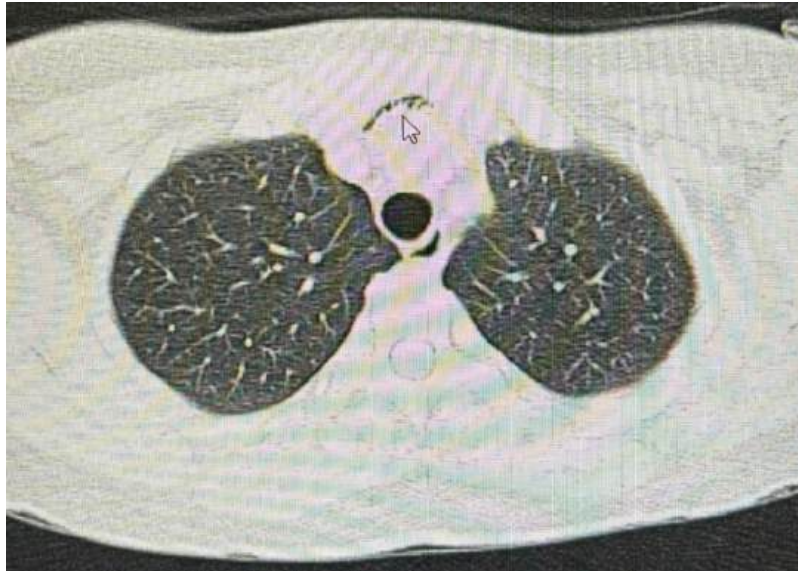
Case: A 41-year-old female patient presented to an external facility with swelling in her face after a dental filling procedure performed under local anesthesia. Initially, an allergy was suspected, and an injection was administered. Since there was no improvement in her symptoms, she admitted to our emergency department. The vital signs were as follows: BP: 144/70 mm/ Hg, HR: 88 beat/min, SatO₂: 99% Temperature: 36.5°C. She had no previous medical conditions and was not on any medications. On physical examination, there was crepitus and swelling on the right side of the face. Laboratory test results were normal. Contrast-enhanced head, neck and thorax computed tomography (CT) showed diffuse subcutaneous air extending from the inferior right orbit to the deep neck planes (Figure-1). Air emphysema was observed in the neck root and mediastinum (Figure-2). Oxygen therapy and triple antibiotics were started in emergency department observation. Otorhinolaryngology and Thoracic Surgery consultations were requested. The patient was discharged from the emergency department upon regression of air in the mediastinum on the control CT scan. Otorhinolaryngology and Thoracic Surgery outpatient clinic control was recommended.

Figure-1



emphysema on the right side of the neck

Figure-2



Subcutaneous air density in the mediastinum

Conclusions: Pneumomediastinum usually resolves spontaneously and oxygen and supportive treatment is often sufficient. Surgical procedure is applied to patients who do not improve with symptomatic treatment. During oral surgical procedures, it should be kept in mind that iatrogenic pneumomediastinum may develop in patients with facial swelling and subcutaneous emphysema

Keywords: pneumomediastinum, emphysema, mediastinal, air density

Ref No: 1637
Pub No: P-029

Ocular Emergency: Herpes Zoster Ophthalmicus

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Background and aim: Symptomatic herpes zoster is a medical disorder characterised by the development of herpes zoster ophthalmicus following involvement of the trigeminal nerve (1). Commonly, patients present at the hospital with symptoms including localised erythema, vesicular rash, intense pain, and visual impairment (2). Early diagnosis and therapy are crucial in averting potential health problems including conjunctivitis, uveitis, episcleritis, keratitis, retinitis, and vision impairment (3). In this case, we will present a patient diagnosed with herpes zoster ophthalmicus that initially manifested in the left region of the face and then affected the eyes.

Case: 70- year-old male patient presented to the emergency room with a chief complaint of numbness, first in the left side of his face, which manifested within a week, and subsequently, two days later, accompanied by oedema, redness, and an exudate in the same area. The patient complained of signs including ocular irritation, pruritus, and ocular discharge, along with intense pain. There was a known diagnosis of hypertension and diabetes. The patient's physical examination revealed a bullous, crusted lesion with an erythematous base on the left side of the face. The lesion originates from the periorbital area and nasal dorsum and extends from the frontal region to the hairline (Figure 1). The periorbital region exhibited oedema. Following ocular examination, the patient's conjunctiva exhibited hyperaemia and chemosis. The patient was started on intravenous acyclovir, oral cyanocobalamin, and therapeutic use of Fusidic acid local cream. The patient was admitted to the hospital.

Figure 1





Bullous, crusted lesions with an erythematous base, seen on the left half of the face

Conclusions: Herpes zoster induces herpes zoster ophthalmicus syndrome, characterised by the involvement of the ophthalmic nerve, the initial subcutaneous branch of the trigeminal nerve (2). The complications of patients manifest almost immediately and progress gradually (3). Early diagnosis and intervention of the patient contribute significantly to the prevention of severe consequences (3).

Keywords: acyclovir, herpes zoster, herpes zoster ophtalmicus



Ref No: 1717

Pub No: P-054

A rare entity: porcelain gallbladder

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Background and aim: Porcelain gallbladder refers to a very rare condition in which the inner gallbladder wall is encrusted with calcium. It is usually found incidentally and is believed to be associated with gallbladder malignancy, although the exact risk remains controversial (1). Herein, we present a patient presented to emergency department (ED) with porcelain gallbladder.

Case: A 63-year-old female with a known history of type 2 diabetes mellitus and chronic kidney disease (CKD) on hemodialysis presented to the ED with complaints of nausea, vomiting, poor oral intake, and abdominal pain. Her symptoms had persisted for several days, with no significant change in bowel habits, and she reported normal gas and stool output. Upon arrival, vital signs were blood pressure 137/96 mmHg, heart rate 105 bpm, SpO2 93%, and temperature 37.1°C. Physical examination revealed tenderness in the right upper quadrant, while other system examinations were unremarkable. Laboratory tests showed elevated white blood cell count (WBC) of $15.1 \times 10^3/\mu\text{L}$, C-reactive protein (CRP) at 6 mg/L, and a serum creatinine level of 6.19 mg/dL, with an estimated glomerular filtration rate (GFR) of 7 mL/min/1.73m². Her last hemodialysis session was 2 days ago and these renal parameters were consistent with her baseline values due to underlying CKD. A contrast-enhanced computed tomography scan of the abdomen was performed, revealing significant calcification of the gallbladder wall, consistent with a diagnosis of porcelain gallbladder. Patient was consulted with the general surgery department and then, hospitalized for cholecystectomy.

Conclusions: Emergency physicians should be aware that porcelain gallbladder may occur due to chronic cholecystitis and consider for laparoscopic cholecystectomy for even asymptomatic patients for the risk of malignancy, although less than thought.

Keywords: porcelain gallbladder, malignancy, chronic cholecystitis



Ref No: 1964

Pub No: P-137

A Simple Medical Procedure Can Lead To A Fatal Complication

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Background and aim: Abdominal paracentesis is a procedure performed to sample and drain ascitic fluid from the peritoneal cavity using a needle. The analysis of the obtained fluid plays an important role in determining the etiology of ascites and identifying possible bacterial infections. Although the procedure is generally simple and safe, it can, albeit rarely, lead to fatal complications.

Case: A 71-year-old male patient with a history of hypertension, heart failure, and coronary artery bypass surgery presented to the emergency department with complaints of weakness and altered consciousness two days after undergoing abdominal paracentesis. On physical examination, his vital signs were as follows: blood pressure 90/60 mmHg, heart rate 100 bpm, temperature 36°C, and oxygen saturation 96%. Abdominal examination revealed distension and tenderness, with no guarding or rebound tenderness. Bilateral pretibial edema of 2+ was noted. Breath sounds were decreased in the basal regions of both lungs. Laboratory results showed a drop in hemoglobin levels from 11 g/dL two days earlier to 5.8 g/dL upon admission. Abdominal CT scan revealed widespread intra-abdominal fluid accumulation with hemorrhagic density. The patient was diagnosed with intra-abdominal bleeding following paracentesis and was admitted to the intensive care unit due to hemodynamic instability.

Conclusions: Research indicates that bleeding complications following paracentesis can occur anywhere from a few hours to up to a week after the procedure. The etiology of the bleeding may involve needle-induced vascular injury, hematoma formation in the abdominal wall, or the presence of liver disease. Additionally, patients with renal dysfunction have a higher risk of bleeding. To reduce these risks, it is recommended that abdominal paracentesis be performed under ultrasound guidance, and patients should be monitored for at least one week after the procedure.

Keywords: Paracentesis, Complication, bleeding



Ref No: 1979

Pub No: P-082

Serious drug side effect case in the emergency department: malignant neuroleptic syndrome

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Background and aim: Malignant neuroleptic syndrome is a rare but severe side effect of antipsychotic medications. Although it is known to be associated with classical antipsychotics, atypical antipsychotics, such as quetiapine, can also rarely cause this syndrome. It begins with high fever, muscle rigidity, autonomic instability, and changes in mental status. The mortality rate is associated with the dysautonomic symptoms of the disease and systemic complications.

Case: A 69-year-old female patient was brought to the emergency department with complaints of urinary incontinence, gait and speech disturbances, tremors, and high fever. Her medical history included hypertension, diabetes mellitus, and bipolar disorder, and she was regularly using Serex, Sormodren, and Norodol. The patient's general condition was poor, with a Glasgow Coma Scale score of 10 (Eye: 3, Motor: 6, Verbal: 1). She was drowsy, with limited orientation and cooperation. Upon admission, her blood pressure was 218/104 mmHg, her temperature was 39.3°C, her pulse was 122 beats per minute, and her oxygen saturation was 75%. Physical examination revealed widespread lead-pipe rigidity. Neck stiffness and meningeal irritation signs could not be assessed. Muscle strength testing was suboptimal due to lack of cooperation, and no lateralized motor deficits were observed. Other system examinations were normal. Laboratory results showed: white blood cell count (WBC) 12,830/ μ L, hemoglobin (HGB) 14.1 g/dL, creatine kinase (CK) 6253 U/L, aspartate aminotransferase (AST) 138 U/L, C-reactive protein (CRP) 168 mg/L, lactate dehydrogenase (LDH) 500 U/L, creatinine 1.11 mg/dL, urea 67 mg/dL, and pH 7.51. Cranial and thoracoabdominal imaging revealed no acute pathology. The patient was admitted to the intensive care unit with a preliminary diagnosis of malignant neuroleptic syndrome.

Conclusions: This case emphasizes the importance of thorough history-taking in patients presenting with altered consciousness, rigidity, and fever. It is crucial to inquire about the use of antipsychotic medications and consider malignant neuroleptic syndrome in the differential diagnosis.

Keywords: neuroleptic malignant syndrome, fever, rigidity, antipsychotic drug

Ref No: 2004
Pub No: P-015

Tardive Dyskinesia After Norodol Intake: Case Report

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Background and aim: Tardive dyskinesia (TD) is a hyperkinetic movement disorder characterized by involuntary and repetitive movements, typically observed in the orobuccal region. Various medications can lead to TD, which usually develops after prolonged use of a neuroleptic drug. The exact pathophysiology is not fully understood, and different treatment approaches have been proposed.

Case: An 18-year-old male presented with sudden unilateral neck spasm, rightward gaze, and jaw spasm. He had no prior medical history. Upon examination, his neck would revert to an abnormal position after command. Blood tests and imaging were normal. After revealing he had taken two 5 mg tablets of his father's Norodol (Haloperidol) the previous evening, he was treated with 5 mg Akineton IM. Following a 3-hour observation, symptoms resolved, and the patient was discharged without complications.

Figure : Acute Dystonia



Uncontrolled muscle contractions towards the side.

Conclusions: Haloperidol side effects are typically expected after long-term use; however, in this case, dyskinesia developed after a single 10 mg dose. The delay in treatment was due to the initial anamnesis being taken in the presence of the family, which affected the thoroughness of the information obtained. It is crucial in emergency settings to take a detailed anamnesis with the patient alone whenever possible, as this can significantly impact the patient's outcome.

Keywords: Haloperidol, Tardive dyskinesia, Dystonia



Ref No: 2032

Pub No:

When Extremity Pain Hides a Dangerous Culprit: Uncovering Acute SVO

Serhat CEYLAN¹

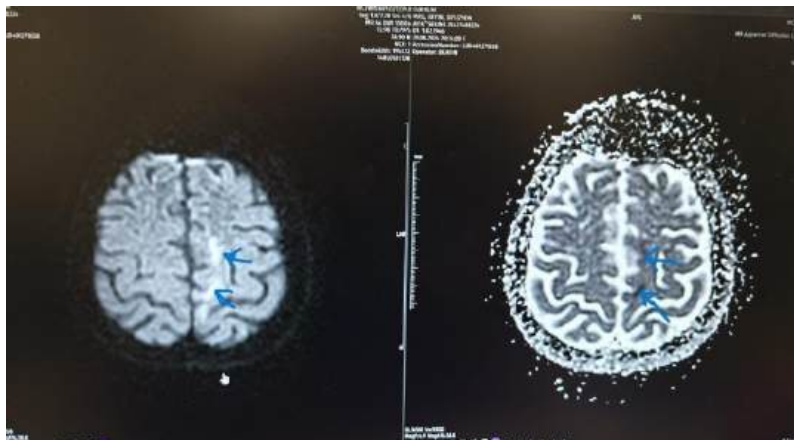
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Background and aim: Acute Stroke (ASVO) is a medical condition caused by a sudden interruption of blood flow to the brain. There are two main types: Ischemic Stroke: Caused by a blockage in the brain's blood vessels due to a clot or plaque. Hemorrhagic Stroke: Results from the rupture of blood vessels in the brain and subsequent bleeding. Symptoms: Symptoms may include sudden headache, weakness of the face and arm, difficulty speaking, vision loss, and coordination problems. Stroke affects approximately 15 million people worldwide each year and results in 5 million deaths annually. Early diagnosis and treatment are crucial for reducing mortality.

Case: A 78-year-old female patient was brought to the green area by her relatives with complaints of pain below the knee and inability to move the area below the knee after a fall 3 days ago. The patient has no other illnesses besides asthma, and it was learned that she is not taking any medications. Vital signs upon arrival: BP:135/84, HR:87, Temperature:36.7°C, SpO2:97%. On physical examination, peripheral pulses are palpable, equal, and normal. Breath sounds are equal and normal bilaterally. No rales, rhonchi, or wheezing are noted. The patient has no headache, no altered consciousness, and no vomiting. Muscle strength was assessed as 0/5 in the right leg and 4/5 in the left leg. A neurological issue was suspected, and cranial imaging was requested. Blood tests revealed Hb:8.7 and MCV:66, with no significant findings in the blood. The patient was consulted with the neurology department with an acute stroke (SVO) preliminary diagnosis and was admitted to the neurology service.

ACUT SVO 1



AKUT SVO 2



Diffusion MRI: Diffusion-restricted areas are observed in the high convexity of the left frontoparietal lobe, as well as in the corpus callosum.

Conclusions: When a patient presents with complaints of weakness and loss of movement in the leg following a fall 3 days ago, it is initially reasonable to consider orthopedic causes. However, it should also be kept in mind that such conditions may be related to neurological events. Given the patient's age, gender, and chronic diseases, it is essential to conduct a thorough physical examination.

Keywords: STROKE, SYNCOPÉ, PAIN, EXREMITY



Ref No: 2379

Pub No: P-069

A Case of Post-Traumatic Peripheral Facial Nerve Paralysis

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Background and aim: The severity of clinical presentation in peripheral facial paralysis (PFP) varies depending on the degree of nerve involvement. Typically, patients present with unilateral facial and platysma muscle weakness, drooping of the forehead and the corner of the mouth, and difficulty in closing the eyes and mouth. Diagnosis is primarily based on medical history and physical examination. (1,2)

Case: A 32-year-old male patient presented to the emergency department (ED) with a 3-day history of inability to close his right eyelid. On physical examination, the patient was stable, alert, oriented, and cooperative, with no lateralizing findings. The right nasolabial fold was flattened, the ability to raise the right eyebrow was weaker compared to the left, and right eye closure was also weaker than the left. The patient's history revealed that he had presented to the ED about a week earlier following a fall from height, computer tomography (CT) imaging showed an oblique fracture line extending from the temporal bone to the parietal bone on the right side, and he had been admitted to the intensive care unit. Laboratory tests revealed a CRP level of 14 mg/L. An otolaryngology consultation considered the case to be House-Brackmann Grade 4 PFP. Treatment included eye protection, 1 mg/kg prednisone for 5 days, followed by a taper and consultation with neurology due to the progressive nature of the clinical presentation. Neurology also suggested PFP as the diagnosis. Follow-up EMG on day 12 revealed a 23% reduction in the compound muscle action potential amplitude on the right facial nerve.

Findings of peripheral facial paralysis





Conclusions: In approximately two-thirds of cases of facial nerve paralysis, no etiological cause is found, and it is termed "idiopathic." However, potential causes include genetic factors, viral and autoimmune diseases, head and neck tumors, central nervous system lesions, trauma and temporal bone fractures. (3,4) As demonstrated in this case, PFP can occur following trauma or temporal bone fractures and this should be kept in mind.

Keywords: Peripheral Facial Paralysis, Post-Traumatic, Etiology of Peripheral Facial Nerve Paralysis



Ref No: 2430
Pub No: P-134

Although the purpose is anti-aging, toxic hepatitis can age you faster

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Background and aim: The new trend of anti-aging applications is attracting interest from people across various sectors today, as a long and high-quality life is a common dream. Intravenous (IV) treatments, including vitamins, elements, glutathione and coenzyme Q10, have become increasingly common. In this case report, we aim to provide information on the complications that developed in a healthcare professional who received anti-aging IV treatment.

Case: A 54-year-old female patient presented with symptoms that developed after receiving IV administration of a serum containing B vitamins, vitamin C, N-acetylcysteine, and coenzyme Q10 during work hours. The patient, who had a known history of coronary artery disease, hypertension, and hyperlipidemia, reported nausea, vomiting, and weakness that began after the serum was finished. Vital signs were: blood pressure 81/53 mmHg, saturation 96%, pulse 104 bpm, and temperature 36.7°C. The patient's overall condition was moderate, and she appeared agitated. Physical examination revealed uvula edema and widespread hyperemia throughout the body. After presenting to the emergency department, the patient developed abdominal pain and diarrhea and was evaluated as having anaphylaxis based on her clinical state. Adrenaline 0.5 mg and IV hydration were initiated. The patient, being a healthcare professional, was admitted to the internal medicine department for observation after emergency service monitoring was completed. Subsequent laboratory tests during the hospitalization indicated an increase in liver function tests. Given her current condition, toxic hepatitis was considered, and the patient's follow-up continues.

Conclusions: This case highlights the need for healthcare professionals to meticulously consider patient history and potential allergic reactions during the use of supplementary products. This situation emphasizes that healthcare professionals should carefully evaluate such applications to ensure patient safety. This case aims to raise awareness of the side effects associated with the use of vitamins and anti-aging serums and to promote a more cautious approach in clinical practices.

Keywords: anti-aging, intravenous, vitamin, coenzyme Q10



Ref No: 2470
Pub No: P-034

INFERIOR GLENOHUMERAL JOINT DISLOCATION

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Background and aim: The glenohumeral joint is head and socket-shaped and articulates between the glenoid socket of the scapula and the articular surface of the humeral head. The shoulder socket is shallow. The glenoid deepens the socket and helps to provide joint stability. The joint capsule and tendinous ligaments also provide stability. Anterior dislocations of the glenohumeral joint are the most common, posterior dislocations occur in less than 1%. Inferior dislocations (luxatio erecta) and superior dislocations (extremely rare) are other types of dislocation.

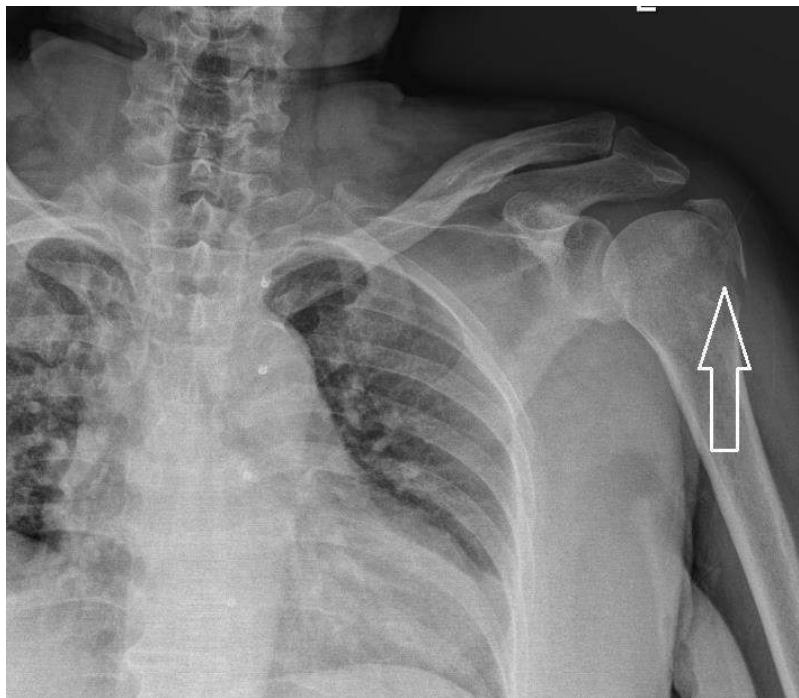
Case: A 71-year-old woman is brought by 112 teams with the complaint of falling down the stairs. According to the anamnesis taken from the patient, she states that her shoulder remained up and she could not lower it down after falling openly on her left shoulder from 3 steps of stairs. Known hypertension patient, taking delix 5 mg. On examination GCS 15 Consciousness was clear, oriented and cooperative, TA: 125/62 Fever 36.4 Pulse 76 SAO2 99 Rr. 12. The left shoulder was hyperabducted, painful, limited, distal pulses were open and other system examinations were normal. X-ray imaging revealed that the left humeral head was displaced inferiorly (Figure 1). The patient was diagnosed as luxatio erecta and the orthopedic unit was informed. Under sedation, a proper closed reduction was performed with the orthopedic unit and control x-ray was taken and it was seen that joint stabilization was achieved. However, an avulsion fracture was found in the tuberculum majus at the level of the possible supraspinatus muscle. (Figure 2) The patient was discharged with velpau bandage.

Figure 1



X-ray AP shoulder image of the patient taken before reduction

Figure 2



X-ray AP shoulder image of the patient after reduction



Conclusions: Inferior shoulder dislocation is very rare in shoulder dislocations and serious complications can develop. Complications include severe soft tissue injury and proximal humeral fractures. Usually the rotator cuff is torn and this requires orthopedic follow-up. Neurovascular compression injuries are common but almost always resolve after reduction. If the humeral head is embedded in the inferior capsule like a buttonhole, the dislocation cannot be reduced closed and surgical reduction is required.

Keywords: Shoulder dislocation, Luxatio erecta, Trauma



Ref No: 2564

Pub No: S-097

A Case of Multiple Thrombotic Pathologies Presenting with Acute Mesenteric Ischemia, Pulmonary Embolism, and Acute Cerebrovascular Accident (SVO)

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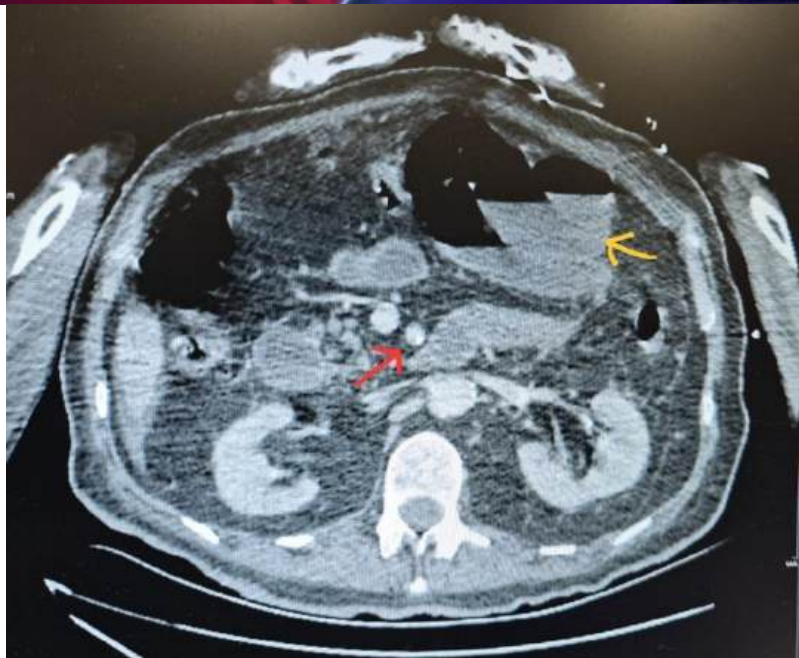
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Background and aim: Discontinuation of anticoagulation therapy can lead to severe thrombotic events, especially in patients with underlying risk factors such as atrial fibrillation and vascular diseases. This case presents a patient who developed multiple thrombotic pathologies, including pulmonary embolism, acute mesenteric ischemia, and a cerebrovascular event (SVO), following the cessation of anticoagulation therapy.

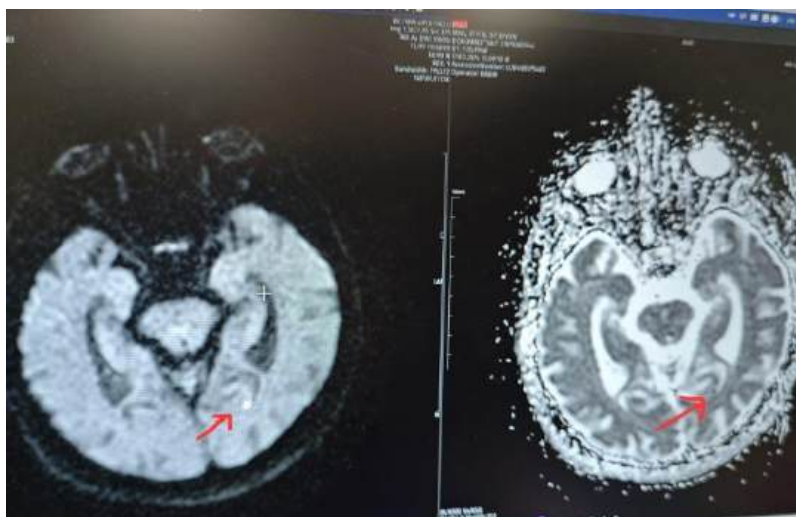
Case: A 76-year-old male with a medical history of hypertension, type 2 diabetes, coronary artery bypass surgery, and previous SVO presented with a 10-day history of diarrhea, nausea, and mild abdominal pain. Laboratory tests revealed elevated lactate (4.59 mmol/L), WBC ($14.9 \times 10^3/\mu\text{L}$), and CRP (65 mg/L), with a urinalysis showing hematuria. The patient was diagnosed with acute gastroenteritis and renal colic, treated symptomatically, and discharged. Four days later, he returned via ambulance with syncope, dysarthria, and incontinence. He was hypoxic, hypotensive, and tachycardic, suggesting pulmonary embolism, with physical findings indicating possible mesenteric ischemia. Laboratory results showed elevated lactate (10.88 mmol/L), WBC ($5.75 \times 10^3/\mu\text{L}$), creatinine (3.29 mg/dL), and CRP (613 mg/L). Imaging confirmed pulmonary embolism, acute mesenteric ischemia, and SVO. Emergency laparotomy revealed extensive bowel ischemia, and approximately 200 cm of bowel was resected. Despite intervention, the patient developed multi-organ failure and died on postoperative day 2.

SMA



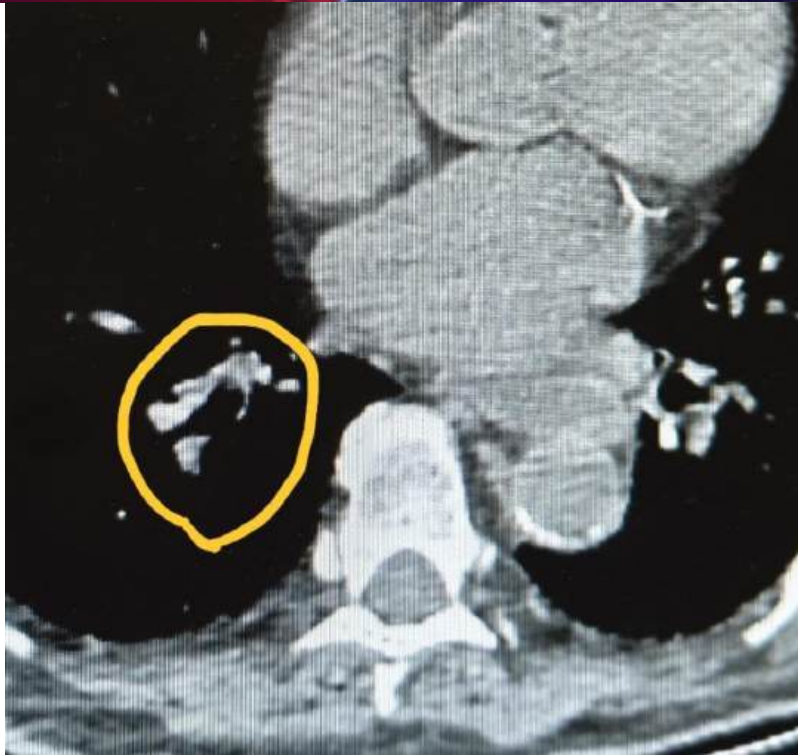
Acute mesenteric ischemia

SVO



Acute cerebrovascular accident

PTE



Pulmonary embolism

Laboratory Results

Parameters	Firat visit(outpatient)	Second visit(ambulance)
CRP	65mg/L	613mg/L
Lactate	4.59mmol/L	10.88mmol/L
WBC	14.9x1000/uL	5.75x1000/uL
Troponin I	40ng/L	170.6ng/L
Creatinine	1.02mg/dL	3.29mg/dL
Urea	50.73mg/dL	179.06mg/dL

Laboratory results

Conclusions: This case highlights the critical importance of anticoagulation therapy adherence in high-risk patients. Elevated lactate levels and inflammatory markers should prompt early suspicion of mesenteric ischemia, even in cases initially presenting with non-specific gastrointestinal symptoms. Pulmonary embolism, SVO, and mesenteric ischemia may coexist in patients with thrombotic risk factors, requiring timely diagnosis and intervention to improve outcomes.



Keywords: Acute mesenteric ischemia, Multiple thrombosis, Pulmonary embolism, Acute cerebrovascular accident, Discontinuation of anticoagulant therapy



Ref No: 2741
Pub No: P-127

A case of cervicofacial subcutaneous emphysema and pneumomediastinum after tooth extraction

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Background and aim: The most common cause of subcutaneous emphysema is maxillofacial and thoracic trauma. However, it may also develop due to dental, oral and nasal surgical procedures. Pneumomediastinum is the presence of air in the mediastinum and may develop after trauma or surgical procedures. Subcutaneous emphysema has been shown to accompany pneumomediastinum in 70% of cases (1-2). Our aim in this presentation is to emphasize that serious complications may develop especially in patients presenting to the emergency department (ED) after dental procedures and that these complications can be prevented with early diagnosis and treatment.

Case: A 44-year-old male patient was admitted to the ED progressively increasing painful swelling on the right side of the neck after extraction of the lower right first molar two days before. Physical examination revealed tenderness with palpation from the right submandibular region to the right clavicle and diffuse crepitation in the same region. Vital signs were normal. There was no pathologic finding in blood tests. Chest radiography showed air density surrounding the heart and brain computerised tomography (CT) showed air images in the subcutaneous tissue in the premaxillary prezygomatic area on the right (Figure-1). Thorax CT showed air in the mediastinum and subcutaneous emphysema in both cervical regions (Figure-2). The patient was hospitalised and received oxygen therapy, analgesia and antibiotherapy. He was discharged after three days.

Conclusions: The roots of molars connect to the submandibular space. From there, they are directly connected to the retropharyngeal space and mediastinum. Therefore, especially in procedures related to molars, pressurized air may pass from the retromolar space to pterygomandibular space and lateral pharyngeal space (3-4). It may lead to life-threatening conditions including tracheal compression, pneumopericardium, tension pneumomediastinum and mediastinitis. Pneumomediastinum and subcutaneous emphysema should be kept in mind by dentists and in case of clinical suspicion, they should be referred to ED immediately.

Keywords: SUBCUTANEOUS EMPHYSEMA, PNEUMOMEDIASTINUM, TOOTH EXTRACTION



Ref No: 2788

Pub No:

Management of Pulmonary Embolism Through Clinical Evaluation and Imaging: A Case Presentation

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Burak Alper Mollaoğlu / Kartal Dr Lutfi Kırdar Şehir Hastanesi

Background and aim: Pulmonary Embolism (PE) is a common form of venous thromboembolism and is one of the ten reversible causes of cardiac arrest. The clinical presentation is variable and typically includes non-specific symptoms, leading to hospital admission. Therefore, diagnosing PE requires a high level of suspicion. For patients suspected of having PE, it is crucial to quickly establish a diagnosis and initiate treatment within algorithms to reduce mortality.

Case: A 55-year-old female patient presented to the emergency department with complaints of cough and shortness of breath that had been ongoing for one week. Five days prior, she had visited her family doctor due to symptoms of fatigue, nausea, and vomiting, and was prescribed a quinolone antibiotic. She took the medication for four days without improvement and, with worsening symptoms, decided to visit the emergency department. The patient's vital signs upon admission were as follows: Blood pressure 150/100 mmHg, pulse 78 beats per minute, temperature 37°C, oxygen saturation 88% on room air, and 96% on 4 L/min oxygen, respiratory rate 24 breaths per minute. The ECG was in normal sinus rhythm with no abnormalities. On examination, breath sounds were bilaterally coarse. There was no swelling or discrepancy in the size of the legs. The Wells score was 3 points (moderate clinical probability), and the modified Geneva score was 3 points (low clinical probability). To reach a diagnosis, a pulmonary phase CT angiography was planned. The CT angiography showed filling defects in both main pulmonary arteries, particularly in the segmental and subsegmental branches leading to the lower lobes.

Conclusions: Prompt and accurate diagnosis of PE is essential due to its potential severity and the need for timely intervention to reduce mortality. This case underscores the importance of high clinical suspicion and appropriate diagnostic testing in the management of suspected pulmonary embolism.

filling defects in both main pulmonary arteries



A. filling defects in both main pulmonary arteries, particularly in the segmental and subsegmental branches leading to the lower lobes.

A. filling defects in both main pulmonary arteries, particularly in the segmental and subsegmental branches leading to the lower lobes.

Keywords: pulmonary embolism, dyspnea



Ref No: 2800

Pub No: P-146

DOES THE HEIMLICH MANEUVER ALWAYS SAVE LIVES?: A CASE OF STERNUM FRACTURE

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Background and aim: The Heimlich maneuver is an emergency first aid technique used to remove an object lodged in the airway. In elderly, bones may be weakened, particularly due to osteoporosis, making them more fragile. Therefore, it is crucial to proceed with extra caution. Incorrect applications can result in serious complications. In this case, we aim to highlight the consequences of improper Heimlich maneuver application in an elderly patient.

Case: A 74-year-old male patient presented to the ED with sharp chest pain. The previous day, the Heimlich maneuver was performed on him after choking on soup while eating. After the maneuver, he developed sharp chest and back pain, which worsened with breathing. The patient's vital signs were stable. The ECG showed no acute pathology. On physical examination, breath sounds were diminished bilaterally, but no rales or rhonchi were heard. There was tenderness on palpation over the midline of sternum. Laboratory results revealed no pathological findings. A thoracic CT showed a non-displaced fracture of sternal body (Figure-1) and aspiration pneumonia in right lower lobe (Figure-2). There was no pleural or pericardial effusion. Echocardiography revealed no pericardial injury. A thoracic surgery consultation was requested. Surgery was not considered, and sternal brace was recommended. The patient was monitored with serial hemograms, troponin levels, and vital signs. Acute coronary syndrome was not considered. The patient was admitted for treatment and monitoring of aspiration pneumonia.

Figure 1: A non-displaced fracture line in the sternum at the T7 level on sagittal section.



Figure 2: Aspiration pneumonia in the right lower lobe.



Conclusions: Incorrect application of the Heimlich maneuver can lead to internal organ injuries and rib fractures. Therefore, it is crucial to perform correctly. In elderly, movements should be slow and controlled, and alternative methods should be considered. Practitioners should receive training to learn the correct execution of this maneuver. Even if the Heimlich maneuver is successful, medical assistance should be sought, and a thorough medical evaluation must be conducted following a choking incident.

Keywords: Heimlich maneuver, sternum fracture, choking, aspiration pneumonia

Ref No: 2939

Pub No: P-105

SKIN ABSCESS WITH PNEUMOTHORAX

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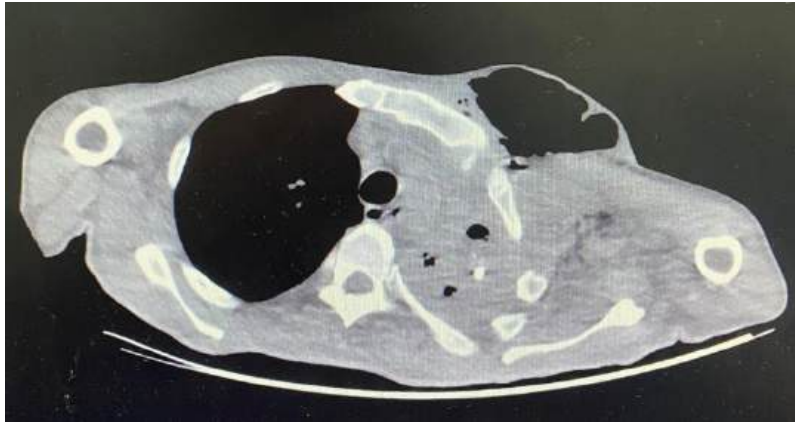
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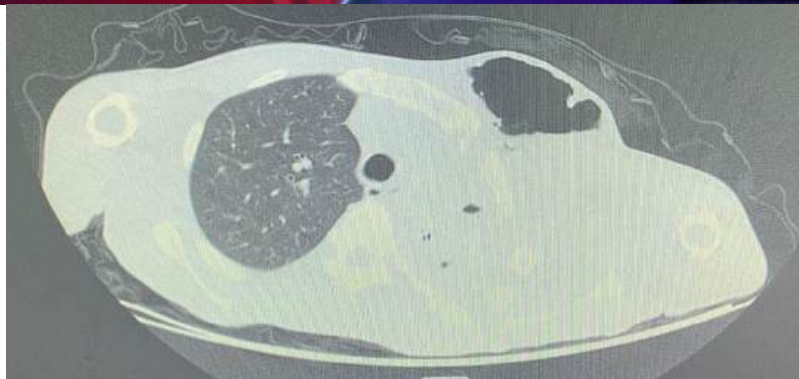
Background and aim: Patients with skin and soft tissue infections may apply to us with cellulitis, skin abscess and other forms of infection. Skin abscess is the collection of inflammation in the skin and subcutaneous tissues. Necrotizing soft tissue infections are characterized by infection-induced necrosis involving any of the soft tissue layers, including the dermis, subcutaneous tissues, fascia, and muscle. In these patients, close monitoring, vital follow-up, appropriate wound care, early initiation of empirical antibiotics and supportive treatment are important.

Case: A 44 years old male patient admitted the hospital with swelling, erythema and purulent discharge at the left chest anterior wall. The patient is under follow-up with due to the suspicion of a lung mass of unknown origin and is not receiving active treatment. At the auscultation there was no sounds at the left lung. At the left chest wall hyperemic lesion with purulent discharge, 5*5 cm in size. After physical examination the patient sent for imaging studies and blood samples taken. At the blood results CRP level was 118. At the ultrasound imaging there is dense collection areas and abscess observed. At the thorax CT imaging effusion and pneumothorax observed in the left lung and the anterior wall of the left chest wall, air densities under the skin. Cause of the open pneumothorax and fistulization risks, abscess drainage was not performed, the lesion was covered with dressing, antibiotics started and transferred to the thoracic surgery clinic.

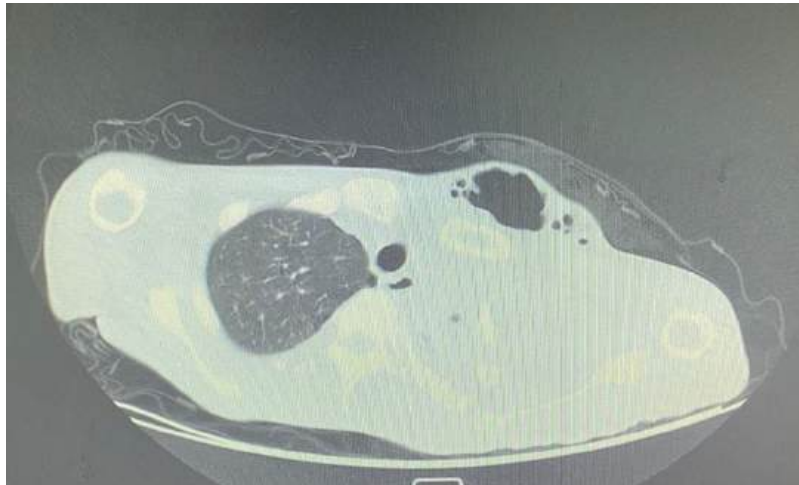
Abscess



Pneumothorax



Air densities under the skin



Conclusions: Skin abscesses are infections and collections that occur in soft tissue, and the most common cause is *S. Aureus*. Drainage and antimicrobial therapy are recommended to provide the most optimal treatment. Early initiation of empirical antibiotics and supportive treatment are important in the follow-up of patients with complicated skin abscess.

Keywords: Abscess, Necrotizing, Skin, Wound, Drainage



Ref No: 3009

Pub No: P-056

Kortizon: Fazlası Bir Dert Yokluğu Yara

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Background and aim: Protein-losing enteropathy is a syndrome characterized by excessive protein loss from the gastrointestinal system and can be seen in various clinical conditions(1).Acute adrenal crisis is a life-threatening emergency that requires prompt diagnosis and treatment.It is often triggered by intercurrent infections in patients with adrenal insufficiency(2).

Case: A 26-year-old female patient was brought to the emergency department by ambulance with complaints of loss of appetite persisting for two days.Upon arrival,the patient's consciousness was confused,and her Glasgow Coma Score was 9(E3M4V2).The patient had a generalized edematous appearance,with a blood pressure of 40/20mmHg,pulse rate of 90beats/min,oxygen saturation(SpO2) of 99%,temperature of 36.4°C,and blood glucose level of 40mg/dL.Her medical history revealed that she had undergone duodenojejunostomy due to Superior Mesenteric Artery Syndrome, followed by antrectomy and Roux-en-Y surgery due to pyloric stenosis.It was also noted that she had developed protein-losing enteropathy secondary to multiple surgeries and was on corticosteroid therapy.Blood tests showed hemoglobin at 8.7g/L,platelets at 42,000/μL,WBC 21,000/μL,sodium 124 mmol/L,chloride 89 mmol/L,calcium 4.88 mg/dL,AST 375 U/L,ALT 162 U/L,and albumin 12g/L.The patient was thought to have developed intravascular volume loss due to decreased oncotic pressure secondary to hypoalbuminemia,which likely contributed to her hypotension.Inotropic support,hydration,and dextrose infusion were initiated.Given the absence of a tachycardic response to hypotension and the presence of hypoglycemia,Acute Adrenal Crisis was suspected.After consultation with endocrinology,albumin and hydrocortisone therapy were initiated via a femoral central catheter.Following the initial treatment,partial improvement was observed in the patient's blood pressure and general condition.She was transferred to the intensive care unit for further evaluation and treatment.

Conclusions: Acute adrenal crisis can present with symptoms such as severe weakness,fatigue,nausea,vomiting,abdominal pain,and dehydration.Hypotension,shock,and progression to altered consciousness are common.Laboratory findings such as hyponatremia,hyperkalemia,elevated creatinine,and hypoglycemia are frequently observed(2).In addition to symptomatic treatment,fluids containing dextrose should be administered,and an initial dose of 100mg hydrocortisone IV bolus should be given, followed by hydrocortisone every 6-8hours(3).

Keywords: acute adrenal crisis, hydrocortisone, hypoalbuminemia, hypotension, tachycardia



Ref No: 3120

Pub No: P-125

Aortic Dissection

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Background and aim: Acute aortic dissection is a cardiovascular emergency that is time-sensitive and difficult to diagnose. The incidence of aortic dissection is 3.5 to 6.0 per 100,000 patient years. The most common cause is uncontrolled hypertension. Other causes are pheochromocytoma, stimulant substance use, smoking, weight lifting, valsalva states, deceleration injury, blunt trauma, aortic coarctation, familial aortic aneurysm or dissection, and bicuspid aortic valve, inflammatory and autoimmune diseases, vasculitis and connective tissue diseases. The most common complaint at presentation is chest pain, followed by back pain and abdominal pain. The pain usually has a sudden onset and is described as stabbing, tearing. Most patients lose their lives before reaching the health institution. In those who reach the hospital, the mortality risk is 23% in 6 hours, 50% in 24 hours. The 5-year survival rate with successful surgery is 75%.

Case: A 56-year-old male patient was brought to the emergency department by ambulance with a complaint of right flank pain. The patient had no known chronic disease or history of urolithiasis. On arrival, vital signs were 168/104 mmHg blood pressure, 36.0 C temperature, 97 saturation, 97 pulse per minute, and 106 mg/dl fingertip blood sugar. The ECG was normal sinus rhythm. Abdominal examination revealed widespread voluntary defense and right costovertebral angle tenderness. When the patient's pain did not subside with opioid analgesics, abdominal angiography was requested. A dissection was observed starting from the aortic arch, extending to the descending aorta, abdominal aorta and distal left common iliac artery. The patient was transferred by ambulance to a cardiovascular surgery clinic.

Conclusions: Acute aortic dissection is an emergency with a high risk of death and patients do not always present to the emergency department with typical symptoms. Therefore, it should be diagnosed quickly in emergency services and a consultation with cardiovascular surgery for treatment planning should be made.

Keywords: Aortic Dissection, abdominal pain, acute



Ref No: 3262

Pub No: P-114

Variceal Bleeding

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Background and aim: Variceal bleeding is a gastrointestinal emergency which is one of the main causes of death for cirrhosis patients. Treatment goals for acute bleeding are; restore and maintain hemodynamic stability, control bleeding and prevent complications. With this case we would like to point out Emergency Department management of acute upper gastrointestinal bleeding occurred from esophageal varices.

Case: A 60-year-old female with a history of sistosel) presented to the emergency room with abdominal pain and hematemesis. The patient had melena 2 days prior to presentation. Examination showed abdominal distension and melena. The patient was admitted to the observation area with bright red vomit and was noted to have vomited approximately 500 cc of bloody material. The patient was transferred to the resuscitation area, monitored, and a nasogastric tube was inserted. An E-FAST ultrasound performed at the bedside revealed diffuse intra-abdominal fluid. Approximately 1300 cc of hemorrhagic fluid was noted from the NG tube. Due to ongoing active bleeding, a 1:1:1 blood transfusion was initiated. General surgery consultation was performed. PPI, crystalloid infusion, vitamin K, and transamin were administered. Cold lavage with adrenaline and transamin was performed through the NG tube. Due to continued bleeding, terlipressin was administered, and norepinefrin was started for the hypotensive patient. The patient, who was referred for urgent endoscopy by the on-call gastroenterologist, was taken for the procedure in the emergency department resuscitation area. The endoscopy revealed actively bleeding esophageal varices, and 6 band ligations were performed. The patient was then transferred to the intensive care unit for close monitoring.

band ligation



Conclusions: Variceal bleeding is the most common cause of upper gastrointestinal bleeding in patients with cirrhosis and portal hypertension. Each episode of bleeding is associated with mortality. Proper management requires a multidisciplinary approach and swift action to address the underlying causes and stabilize the patient.

Keywords: variceal bleeding, hematemesis



Ref No: 3326

Pub No: P-106

IN THE DIFFERENTIAL DIAGNOSIS OF FEVER AND CONFUSED CONSCIOUSNESS NEUROLEPTIC MALIGNANT SYNDROME

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Background and aim: Neuroleptic Malignant Syndrome (NMS) is a rare but fatal clinical condition that requires high clinical suspicion to recognize quickly and intervene appropriately. Diagnosing is often difficult because there are medical conditions that present with similar clinical features. This syndrome is a life-threatening neuro-psychiatric emergency characterized by clinical symptoms of mental status change, muscle rigidity, fever and autonomic dysfunction due to the use of antipsychotic agents.

Case: A 54-year-old male patient, who had been complaining of persistent fever and diarrhea for 1 week, was admitted to the emergency department with syncope. Deterioration in understanding and speech and dystonia began with the fever. The patient has been diagnosed with Parkinson's disease for 5 years. The dose of levodopa was increased to 6x1 about 1 week ago. In the neurological examination of the patient, he was awake, disoriented. There is dystonia in the extremities. Vital signs as follows; BP 130/80 mm/Hg, HR 130 beats/min T 39.9 °C. Laboratory tests revealed WBC: 19k CK: 3700. Cranial computed tomography and diffusion-weighted magnetic resonance imaging showed no pathology. The patient was admitted to the intensive care unit with a preliminary diagnosis of NMS.

NMS



BT FOR NMS

Conclusions: NMS is a diagnosis of exclusion. Neuroimaging and lumbar puncture results are usually normal in NMS. It is a potentially fatal syndrome due to exposure to dopamine antagonists. In patients who are unconscious and for whom we cannot obtain sufficient anamnesis, it is a diagnosis that should be kept in mind if it is clinically compatible.

Keywords: NEUROLEPTIC MALIGNANT SYNDROME



Ref No: 3350

Pub No:

BRACHIAL ARTERY THROMBUS IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and aim: Systemic lupus erythematosus (SLE) is a multifactorial, multifactorial, autoimmune disease that may involve many organs and tissue systems in the body with chronic attacks and recoveries. Thrombotic complications such as myocardial infarction, stroke and pulmonary embolism should be kept in mind in this disease group(2)

Case: A 29-year-old woman presented with a 6 day history of coldness and numbness in the left hand. She had a known history of SLE and popliteal artery thrombus. Physical examination revealed decreased radial pulse in the left hand. There was minimal diameter difference and coldness in the left hand. On admission vital signs were TA:118/93 mm/hg pulse:60 beats/min fever:36.2 °C SatpO2:98.Doppler USG revealed decreased left hand peripheral pulses. Subsequent upper extremity CT angiography showed thrombus in the distal left popliteal artery and proximal radial artery. The patient was transferred to the intensive care unit by cardiovascular surgery. Left brachial artery embolectomy was performed. The patient was discharged on the 1st day after embolectomy.

Conclusions: Acute arterial occlusion can occur in any artery of the upper or lower extremity, depending on the patient's age and comorbidities. Arterial emboli in the upper extremity are 15-32% and develop more rarely than those in the lower extremity.(1) Risk factors for thrombus formation include atherosclerotic vascular diseases, aneurysms, aortic dissections, intra-arterial drug injections, SLE, rheumatoid arthritis. In patients with upper extremity arterial thrombus, findings that spread according to thrombus localization include pain, paraesthesia paralysis, pallor, coldness, and pulselessness.(2) Doppler USG and CT angiography are among the diagnostic tests in patients presenting with these complaints. It should be kept in mind that acute arterial thrombi may be associated with SLE. It is important to order appropriate tests and make a differential diagnosis in order to make the diagnosis as soon as possible and to start treatment.

Keywords: brachial, systemic lupus erythematosus, thrombus



Ref No: 3372

Pub No: P-036

Secondary Deep Vein Thrombosis Developing After Clavicle Fracture; Case Study

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Background and aim: Upper extremity deep vein thrombosis (UE-DVT) is a thrombosis that occurs in venous bed extending from the jugular, brachiocephalic to the veins. Although annual incidence of Deep Vein Thrombosis(DVT) is 1/1000, which can be considered even rarer (1) UE-DVT is divided into two as primary and secondary. (2). In our case, we will discuss the case of secondary type UE-DVT that developed after a fracture that developed after clavicle trauma

Case: A 27 year old male patient presented to the emergency department with complaints of swelling in the left arm and falling again on the area where the left clavicle fracture was located. The patient's history revealed that a displaced left clavicle fracture occurred 15 days ago due to a fall. The patient was using 8 bandages afterwards, and swelling had for about 1 week, and pain had started to occur for a few days. There was an edematous appearance and a difference in diameter in the left arm, the pulses were open. There was no ecchymosis, redness or hematoma, and neurological deficit. Vital signs on arrival and blood test results were in normal range. There was no change in the control X-ray. Venous color doppler ultrasonography showed thrombus in the lumen of the brachial vein. Patient was discharged with prescriptions for Ecopirin and Clexane

Clavicle Fracure of Patient



Conclusions: It is an important clinical condition to detect UE-DVT. Complications can include pain, paresthesia, fever, facial swelling, and even superior vena cava syndrome (3). The Constans and d-dimer test can be used as screening tests .Although use of these tests are not gold standard, and further clinical research is needed (4,5). MRI and CT venography can be used. However, venous color Doppler is more commonly used. Treatment strategies mainly: low molecular weight heparin or fondaparinux and vitamin K antagonist. Compression bandages are not recommended (6).



Keywords: Deep vein thrombosis, Upper extremity deep vein thrombosis, Fracture, Trauma



Ref No: 3509

Pub No: P-006

Emergency approach to Neuroleptic Malignant Syndrome

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Background and aim: Neuroleptic malignant syndrome is a syndrome with a high risk of fatality that occurs as a result of exposure to dopamine agonist or sudden discontinuation of dopamine antagonist, and all antipsychotics can cause this clinical condition. Neuroleptic malignant syndrome is a diagnosis of exclusion.

Case: 15-year-old male patient presented to the emergency department by his family. Vital signs: •Blood pressure: 100/76 mmHg •SpO₂: 96% •Heart rate: 110 beats per minute •Temperature: 36.5°C History: •Patient has a diagnosis of schizophrenia and is followed up by the child psychiatry clinic. •Patient is currently taking aripiprazole. Physical examination: •General condition: Moderate •Glasgow Coma Scale (GCS): 15 •Alert and oriented •Nuchal rigidity present •Bilateral light reflexes: ++/++ •Deep tendon reflexes: +++/+++ •Babinski reflex: -/- •Oropharynx: Natural with subserosal discharge •Lung sounds: Clear •Abdominal examination: Soft Musculoskeletal system: •Rigidity present in all joints Laboratory findings: •CRP: Normal •Leukocytosis present Neuroimaging: •Brain MRI and brain diffusion MRI: No acute pathology detected Plan: •Lumbar puncture (LP) is delayed due to rigidity •Empirical antibiotic therapy is started for central nervous system infection

Conclusions: Child psychiatry and child neurology clinics were contacted. Appropriate centers were contacted for intensive care follow-up and referral was planned.

Keywords: Neuroleptic malignant syndrome schizophrenia, rigidity, neck stiffness

References

Ref No: 3709

Pub No: P-097

Full block management in the emergency department

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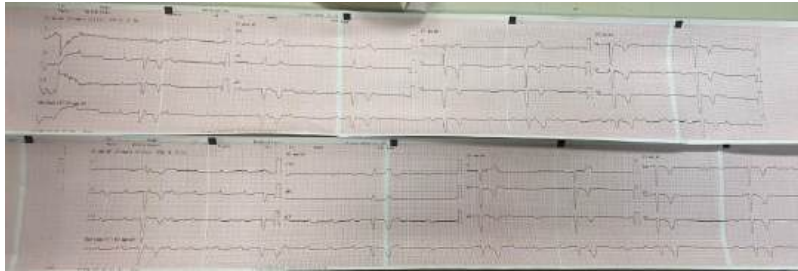
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Background and aim: Atrioventricular (AV) block is defined as a delay or interruption in the transmission of an impulse from the atria to the ventricles due to an anatomical or functional disorder in the conduction system. While AV complete block has many cardiac causes, non-cardiac causes are rarer. Here, we will focus on hyperkalemia, which is listed among these causes. Symptoms of AV complete block that overlap with our patient's symptoms:● Dyspnea● Chest pain● Presyncope

Case: A 54-year-old male patient presented to our clinic with complaints of confusion, dizziness, chest pain, and dyspnea. He has a known history of DM, HT, and CKD. Upon arrival, the patient's vital signs were as follows: BP: 200/100, temperature: 36.1°C, respiratory rate: 28, SpO2: 98%, blood glucose: 574 mg/dL, and GCS: 6. Endotracheal intubation was performed to protect the patient's airway. Simultaneously, an ECG was taken, and an arterial blood gas analysis was sent. The ECG was interpreted as a complete AV block. After intubation, external pacing was applied. When the potassium level was found to be 7.5 in the arterial blood gas, anti-potassium treatment was initiated. The patient was transferred to a center with cardiology services.

3rd degree avblock



Conclusions: In this case, we aimed to emphasize the less common etiology of hyperkalemia in complete AV block. We also wanted to highlight the importance of quickly obtaining arterial blood gas results in such patients. It is crucial for an emergency physician to recognize a complete AV block rhythm and promptly apply a pacemaker without delay.

Keywords: hyperkalemia, 3rd degree a-v block, pacemaker



Ref No: 3794

Pub No: P-126

A RARE CAUSE OF CONFUSION: MYXEDEMA COMA

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Background and aim: Myxedema coma can be defined as a clinical picture with hypothermia, respiratory disorders, hyponatremia, hypoglycemia, hypoglycemia and various degrees of consciousness disorder in addition to the clinical findings of hypothyroidism, showing a high mortality rate. It is a rare and serious complication of hypothyroidism.

Case: A 69-year-old woman presented with the complaint of falling after deterioration. GCS was 10, consciousness was prone to sleep, partially cooperative and disoriented. On examination, the patient was observed to have an edematous face and eyelids, a dull expression and dry skin. There were no lateralizing signs as far as could be evaluated. Vital signs: blood pressure:186/81mm/hg pulse:106 beats/min fever:36.4°C nasal and spo2:93. In the examinations of the patient, glucose:119 mg/dL kre:1.27 mg/dL na:135 mmol/L wbc: 8.09 crp:12.7 mg/dL hgb:12.2 g/dL ph:7.47 lactate:3.1 mmol/dL titer: natural. There was no acute pathology on central imaging. ECG was in sinus rhythm. Ammonia and TFT tests were also ordered for the preliminary diagnoses of hepatic encephalopathy and myxedema coma due to the patient's known liver cirrhosis and known hypothyroidism with inspection findings. NH3:37 TSH:179 free T3:2,5 T4:0,64. The patient was interned to the internal medicine intensive care unit for myxedema coma.

Clinical picture of a patient with myxedema coma



Conclusions: Myxedema coma usually shows signs of severe hypothyroidism. Hair loss and dryness, coarsening and scaling of the skin, facial edema, pale appearance, hoarse and thick voice, slowed movements, drowsiness, macroglossia are the best known signs of hypothyroidism. In addition to the general findings of hypothyroidism, findings of hypothermia and various degrees of impaired consciousness should suggest myxedema coma. Clinical diagnosis should be supported by laboratory findings. Intensive care conditions may be required for treatment. Elderly patients and patients with cardiac complications are at great risk. Inspection should be performed in elderly patients presenting with confusion and myxedema coma should be considered as a differential diagnosis.

Keywords: Hypothyroidism, myxedema coma, confusion

Ref No: 3823

Pub No: P-016

A Case of Tubo-Ovarian Abscess Presenting with Ileus and Acute Renal Failure: A Triple Threat in a 46-Year-Old Female Patient

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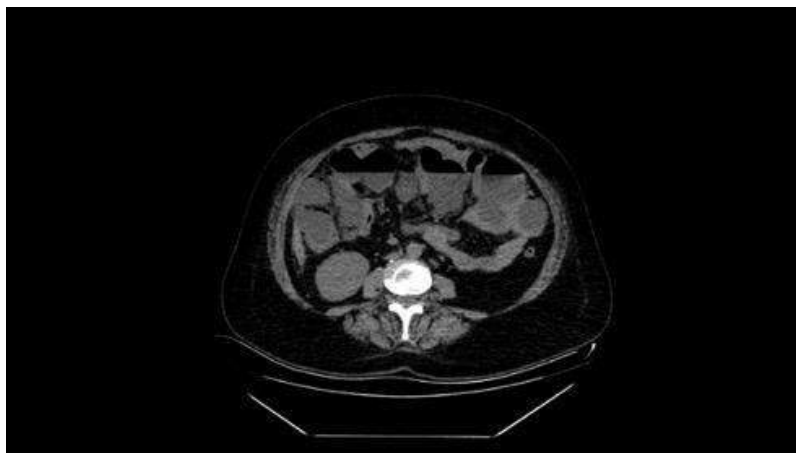
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Background and aim: Abdominal pain is a frequent complaint in the emergency department, often requiring a detailed examination to determine its cause. This case report discusses a 46-year-old female patient who presented with abdominal pain due to a tubo-ovarian abscess, a serious complication of pelvic inflammatory disease that can lead to severe outcomes like sepsis and organ failure if not treated promptly.

Case: The patient presented with a 10-day history of abdominal pain, fever, nausea, vomiting, and reduced urine output. Her vital signs were stable, with a BP of 140/80 mmHg, pulse of 86/min, and temperature of 37.5°C. Physical examination revealed generalized abdominal tenderness, distension, and voluntary guarding without rebound tenderness. Laboratory results showed elevated creatinine, urea, CRP, and leukocyte levels, along with low potassium and sodium levels. An abdominal CT scan without contrast revealed a significant lesion in the peritoneal cavity with air-fluid levels, suggestive of an intraperitoneal and tubo-ovarian abscess. The patient was managed with hydration, symptomatic treatment, and antibiotics, and referred for surgical intervention, where 3000 cc of pus was drained, and she was admitted to the ICU for monitoring.

Figure 1: Air-fluid levels



A non-contrast abdominal CT scan revealed a lesion within the peritoneal cavity, which could not be distinctly separated from the bowel loops, and showed significant air-fluid levels

Figure 2: Cystic lesion



A multi-compartmental cystic lesion approximately 8 cm in size was observed in the pelvic area, merging with the aforementioned structure

Conclusions: Accurate diagnosis of abdominal pain in the emergency department is crucial and often requires a multidisciplinary approach. In this case, the combination of ileus and postrenal acute renal failure complicated the management, highlighting the importance of considering intra-abdominal abscesses as part of the differential diagnosis. Early diagnosis and treatment led to a successful outcome for this patient.

Keywords: acute renal failure, abscess, obstructive ileus



Ref No: 3861

Pub No: P-133

Development of Hematoma in the Right Paraglottic Area of the Larynx Following Trauma: A Case Report

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Background and aim: Blunt laryngeal injuries are medical emergencies that can lead to severe complications, such as respiratory distress and hoarseness. This study aims to present the findings and management of a hematoma in the right paraglottic area of the larynx in a patient admitted to the ED.

Case: A 33-year-old male with no known comorbidities presented to the ED with hoarseness after being struck in the mid-neck region by another individual's fist. Patient complained of throat pain, and shortness of breath upon admission. Clinical examination revealed no erythematous areas in the neck, but tenderness was noted upon palpation. Breath sounds were normal. His initial vital signs were recorded as SpO₂: 99%, BP: 120/70 mmHg, and HR: 75 bpm. A significant hematoma was observed in the right paraglottic area of the larynx. Indirect laryngoscopic examination revealed a hematoma covering approximately 30% of the right side of the larynx, extending along the right epiglottic fold. Right vocal cord was immobile, and the glottic rima remained open. A neck CT scan revealed a fracture of the right cricoid cartilage and signs of obliteration in the right paralaryngeal region due to a hematoma within the fatty tissues. Given the potential for hematoma progression and the risk of sudden intubation, the patient was admitted to the intensive care unit for observation. Over three days, the hematoma and symptoms subsided, after which the patient was transferred to the ENT department and subsequently discharged with follow-up recommendations.



Conclusions: Laryngeal injuries pose potentially life-threatening risks. The patient's condition, assessed using advanced imaging methods is critical for determining effects of the pathology. Depending on the size and impact of the hematoma, surgical intervention may be required. This case highlights the importance of recognizing hematoma development following trauma and timely management. Through a multidisciplinary approach, the patient's condition was stabilized, and appropriate follow-up was conducted.

Keywords: Larynx, Hematoma, Trauma, Emergency Department, Hoarseness



Ref No: 3958

Pub No: P-048

LEAD POISONING PRESENTING WITH ABDOMINAL PAIN

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Background and aim: Lead is a harmful environmental pollutant with highly toxic effects on many organs in the body. Although lead can be absorbed through the skin, it is primarily absorbed through the respiratory and digestive systems. Lead exposure can lead to neurological, respiratory, urinary, and cardiovascular disorders due to immune modulation, oxidative, and inflammatory mechanisms. Additionally, it can disrupt the balance of the oxidant-antioxidant system, causing inflammatory responses in various organs. In this case, we present a patient who came to the emergency department with nonspecific complaints such as abdominal pain and vomiting, and was diagnosed with lead poisoning due to occupational exposure.

Case: A 28-year-old male patient presented with complaints of nausea, vomiting, and abdominal pain that had persisted for 15 days. He had no known medical conditions, medication use, or history of surgery. It was learned that the patient had made multiple visits in the past 15 days with similar complaints, and had been diagnosed with acute gastroenteritis and urinary tract infection, for which he was prescribed antibiotics and discharged. On physical examination no pathological findings were noted. ECG showed a normal sinus rhythm, and no abnormalities were observed on chest X-ray and abdominal ultrasound. Laboratory tests revealed no pathological findings. Further history revealed that he has been working in a battery factory, and one of his coworkers with similar symptoms had been hospitalized in intensive care with a preliminary diagnosis of lead poisoning. Patient's blood lead level was found to be 86.1 mcg/dL. After receiving chelation therapy, the patient's blood lead levels decreased, and he was discharged.

Conclusions: The outcomes of lead exposure can be mitigated by maintaining a low threshold for suspecting asymptomatic lead exposure based on occupational and environmental history or medical findings, checking blood lead level and provide appropriate advice and treatment in such cases. In the emergency department, toxidromes should be considered in the differential diagnosis of non-specific findings.

Keywords: emergency department, lead poisoning



Ref No: 4010

Pub No: P-101

Cerebral venous thrombosis

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Background and aim: Cerebral venous thrombosis involves the obstruction of cerebral veins or dural sinuses, impairing blood drainage from brain tissue. This obstruction can lead to cerebral parenchymal lesions (e.g., stroke), dysfunction, and increased venous and capillary pressure, resulting in disruption of the blood-brain barrier. The rise in venous and capillary pressure, leading to vasogenic edema and leakage of blood plasma into the interstitial space. As intravenous pressure continues to escalate, localized cerebral edema and venous hemorrhage may occur due to rupture of capillary structures.

Case: A 44-year-old male presented to the emergency department with new-onset purposeless movements, forgetfulness, confusion, and difficulty walking. He has a known diagnosis of hyperthyroidism and no history of drug use. ECG showed normal sinus rhythm, blood tests revealed no pathological values. Neurological examination indicated disorientation and confusion, but no motor/sensory deficits. Cranial computed tomography (CCT) identified a mass/hemorrhage at thalamus compressing the left lateral ventricle. Diffusion magnetic resonance imaging (MRI) showed restriction in the thalamus. The patient was admitted to the neurology ward. Follow-up imaging revealed bilateral minor punctate thalamic lesions and hemorrhage in the left thalamus. MR venography indicated occlusion of the rectus sinus. Treatment with Clexane was initiated. During follow-up, the patient developed right hemiparesis, and control CCT detected hemorrhage in the left internal capsule. Neurological examination showed muscle strength in right upper and lower extremities as 3/5. An increase in brain edema was observed. Subsequent evaluation showed improvement, with upper extremity strength at 4/5 and lower extremity strength at 5/5.

Conclusions: Cerebral vein thrombosis should be considered in emergency department when a new-onset headache occurs, particularly if it differs from the patient's headache pattern, signs or symptoms of intracranial hypertension, encephalopathy, or neurological symptoms that do not conform to a specific vascular distribution or involve multiple vascular territories, or in cases of seizures.

Keywords: Cerebral, Venous, thrombosis



Ref No: 4042

Pub No: P-071

A CHALLENGING DIAGNOSTIC DILEMMA IN SEIZURE: TOXICITY, CONVERSION DISORDER, OR CEREBRAL PATHOLOGY?

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Background and aim: A seizure is a life-threatening condition caused by uncontrolled cerebral neuronal activity, leading to changes in consciousness, behavior, memory, or emotions. Diagnosing central neurogenic causes can be challenging due to the numerous toxic causes that need to be considered. This paper presents a case of a patient who, after consuming alcohol, was admitted to the emergency department with absence seizures and a speech disorder.

Case: A 25-year-old male with no medical history was brought in due to discomfort, sweating, tremors, and a period of unresponsiveness after alcohol consumption. He also exhibited speech disorder for 10 minutes prior to admission. He had no convulsions or incontinence. On arrival, his vital signs were stable, and ECG showed normal sinus rhythm. He was conscious, cooperative, and oriented. Neurological examination was unremarkable. Blood glucose was 105 mg/dL. Arterial blood gas revealed a pH of 7.33, HCO₃ of 20 mEq/L, and lactate of 2.2 mmol/L. Serum ethanol was 127 mg/dL. Other lab results were normal. Due to the possibility of intracranial pathology and a suspected first seizure, further imaging was planned. Brain CT revealed an intracranial mass in the left temporal lobe, displacing the left lateral ventricle, with associated vasogenic edema (Figure 1-3). The patient was referred to neurosurgery.

Figure 1



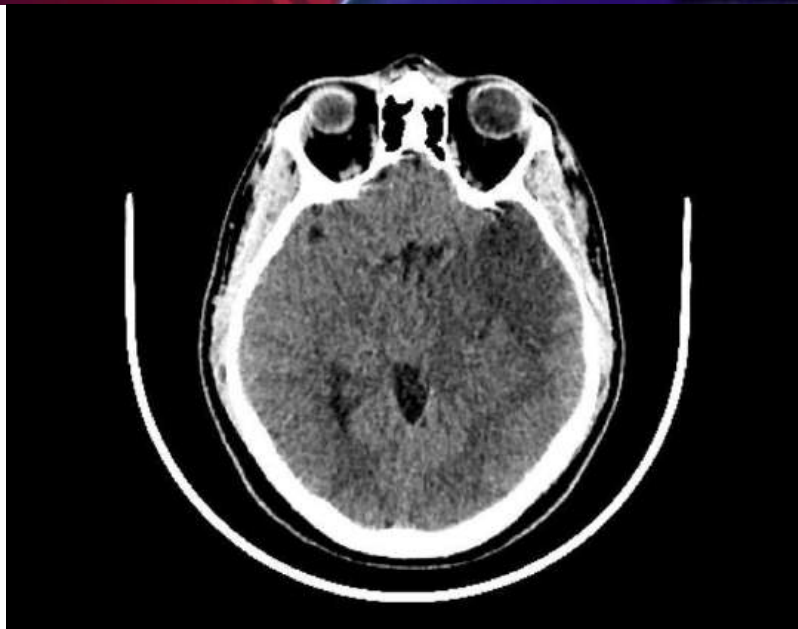
Displacement of the left lateral ventricle

Figure 2



An intracranial mass in the left temporal lobe with associated vasogenic edema (coronal axis)

Figure 3



An intracranial mass in the left temporal lobe with associated vasogenic edema (longitudinal axis)

Conclusions: Seizures can be provoked or unprovoked, with epilepsy defined by recurrent unprovoked seizures. Non-epileptic seizures may result from electrolyte imbalances, alcohol consumption, toxins, trauma, infections, vascular anomalies, or tumors. In cases where patient presents with seizure after alcohol intake, distinguishing between causes such as toxicity, stress, central pathology, or underlying epilepsy is challenging. Identifying whether seizures are provoked or unprovoked is crucial for diagnosis and treatment. While there are no specific imaging guidelines for seizures in emergency department, history and examination are essential. For suspected first seizures, ruling out systemic or CNS pathology often requires central imaging.

Keywords: alcohol, seizure, toxicity, brain tumor, vasogenic edema



Ref No: 4090

Pub No: P-117

West Nile Virus

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Background and aim: West Nile Virus (WNV) is a virus that is prevalent in tropical and temperate climates. With climate change and global warming it is becoming a significant issue across the world. This vector-borne disease, primarily being carried by mosquitoes of Culex species. WNV is known to cause mild symptoms or be asymptomatic in most people, with only 20-40 percent of the patients showing any signs and symptoms related to WNV. Of these 20-40 percent only one in 150 develop neuroinvasive disease related to WNV. In our case report, we aim to present one of these neuroinvasive cases and how to manage it in the Emergency Department (ED).

Case: A 53-year-old patient with a known history of diabetes presented to the emergency department(ED) with complaints of speech disturbance, fever, and confusion. Initial physical examination revealed neck stiffness and tenderness, although Kernig and Brudzinski signs were absent. After the initial assessment, the patient was directed for imaging studies and blood samples were taken to evaluate for any metabolic abnormalities. Cranial imaging did not reveal any pathology, and the blood tests were consistent with mild to moderate hyponatremia, with a corrected value of 127 mEq/L. Considering the neck stiffness and fever, we decided to consider encephalitis as a possible diagnosis. Consequently, the patient was referred to neurology, and a lumbar puncture was performed to rule out this diagnosis. The LP sample showed an increased protein level with normal glucose level in the cerebrospinal fluid. Based on this result, the patient was transferred to the intensive care unit with a diagnosis of encephalitis. Subsequently, a viral panel tests were conducted, which resulted positive for West Nile Virus (WNV).

Conclusions: WNV is a vector-borne disease prevalent in tropical climates. With global warming it enhances its stretch across the world. ED physicians should be aware of this possible diagnosis.

Keywords: Culex, neuroinvasive, fever, confusion, tropical



Ref No: 4181

Pub No: P-139

THE ALARMING SYMPTOM OF 2024: MACULOPAPULAR RASH

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Background and aim: Urticaria is an acute-onset, pruritic skin reaction characterized by erythematous welts (plaques) of various sizes, commonly described as "transient." These symptoms may appear alongside many allergic reactions but can also be non-allergic. In children, particularly, numerous acute urticaria reactions caused by viruses may present as hives lasting more than 24 hours or recurring episodes. In this case, we present a case of urticaria caused by a Hyphantria Cunea bite.

Case: A 55-year-old female with no medical history presented to the ED with pruritic maculopapular lesions on bilateral upper extremities, particularly on the outer surfaces (Figure-1). These lesions appeared three days prior, worsened progressively, and tended to merge (Figure-2). The patient reported no fever, fatigue, weakness, nausea, or vomiting before the lesions. Initially, they appeared on the left upper extremity and later spread to the right. No one in her household had similar lesions. Due to the lesions' appearance, the patient was monitored in isolation with a suspicion of MPOX. Further questioning revealed a travel history to Ordu about seven days ago and working in a hazelnut garden for about a month. The patient had contacted a white, hairy caterpillar about five days ago in the garden, identified as Hyphantria cunea(Figure-3). She was consulted with dermatology and infectious diseases, and an allergic reaction due to insect contact was considered the primary diagnosis. The patient was discharged with prescriptions for oral and topical antihistamines.

Figure 1. Maculopapular lesions on bilateral upper extremities, particularly on the outer surfaces



Figure 2. Maculopapular lesions on bilateral upper extremities, particularly on the outer surfaces



Figure 3. A white, hairy caterpillar (*Hyphantria Cunea*)



Conclusions: Patients presenting with hyperemic and rash-like lesions, the most important diagnostic tool is a thorough history. A detailed history is crucial; identifying an etiologic agent (e.g., cold, exercise, food) can help prevent future reactions. Treatment is usually supportive and symptomatic. All preliminary diagnoses, including pandemics and epidemics, should consider the patient's environmental exposures, medication use, and known allergies.

Keywords: Hyphantria Cunea, Urticaria, pruritus, maculopapular lesions, insect bite



Ref No: 4214
Pub No: P-061

In a patient with seizures bilateral fracture shoulder dislocation

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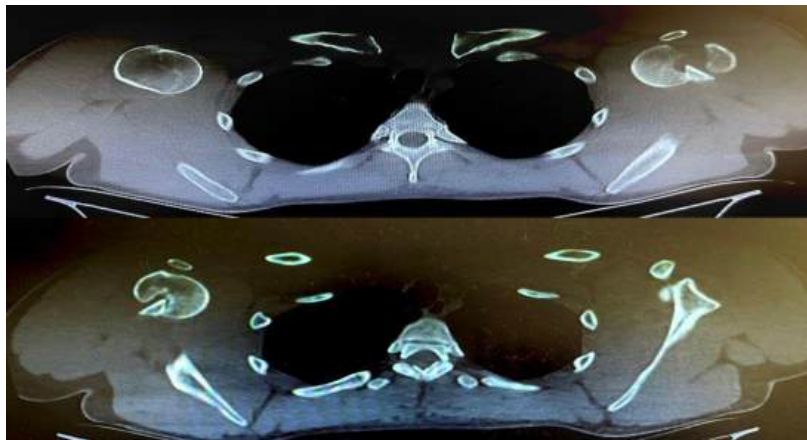
Background and aim: A seizure is an episode of abnormal neurological function caused by inappropriate electrical discharge of brain neurons. Bilateral injuries of the shoulder joint in all directions are extremely rare. Most cases are posterior shoulder dislocations. Bilateral anterior shoulder dislocation may develop in people who have epileptic seizures, diabetic nocturnal hypoglycemia, people with joint laxity who voluntarily dislocate the shoulder joint, after trauma or during sports activities. We prepared this case to remind you that we may see bilateral fractures and anterior shoulder dislocations as a complication in patients presenting with seizures.

Case: A 26-year-old male patient is diagnosed with major depression and uses lustral and rexapine. The patient was admitted to the emergency room with complaints of fainting and severe spasms in both arms lasting 2-3 minutes. On arrival of the patient, blood pressure: 110 / 70 mmHg, blood saturation: 99, pulse: 91, capillary blood glucose: 114 were measured. The patient, whose upper extremity movement was limited, was observed to be biting his tongue during his medical examination. Bilateral shoulder radiography and non-contrast shoulder computed tomography were taken, and dislocation and fracture were detected in both shoulders (Figure 1 and Figure 2). A shoulder arm sling was applied to the patient who was consulted with an orthopedist.

Fig 1. shoulder fracture and dislocation on shoulder radiograph



Fig.2 shoulder fracture and dislocation on shoulder tomography



Conclusions: In convulsive diseases accompanied by seizures, the humeral head usually protrudes backwards. In a patient experiencing a contraction, the shoulders are typically in adduction, internal rotation, and flexion. Anterior shoulder dislocations occur when the arm is forced into external rotation, abduction and extension. In patients presenting with epileptic seizures, a detailed physical examination should be performed and we, emergency medicine doctors, should keep this complication in mind.

Keywords: Bilateral glenohumeral dislocation, Seizures, Humerus fracture

Ref No: 4231

Pub No: P-099

Rare Finding in Traumatic Brain Injury: Motor Cortex Compressing Haematoma

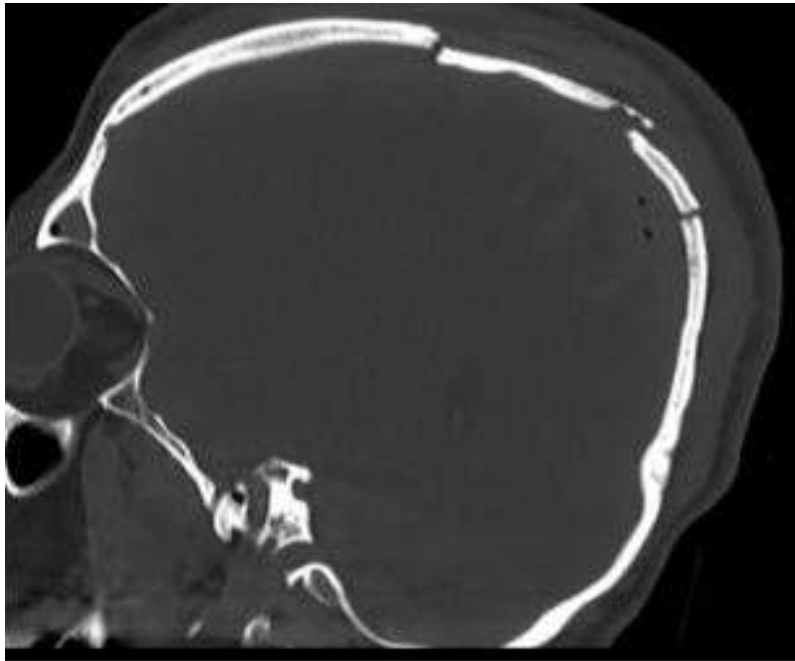
Tuğçe OKUYUCU¹

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Background and aim: Subarachnoid haemorrhage is a common finding in acute traumatic brain injury. Studies indicate that out of 1.6 million head injuries in the USA each year, 50,000 result in death and 70,000 in permanent neurological damage. In this case report, we aimed to discuss the vital importance of early diagnosis and initiation of treatment in a patient who presented to the emergency department with a surprising neurological deficit.

Picture 2



multiple displaced fractures extending towards the right frontal in both parietooccipitals

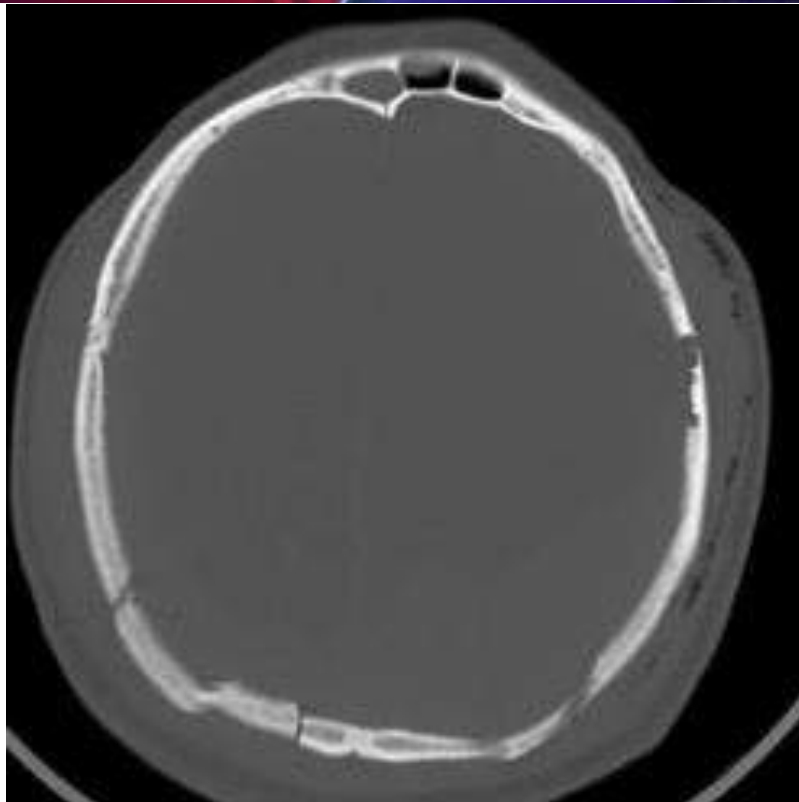
Picture 3



subdural haematoma in the interhemispheric falx, subdural haematoma reaching 7 mm in the thickest part on the right in both parietooccipitals

Case: A 50-year-old male patient was brought head trauma after a fall from a moving bicycle. There were no features in his background and surname. He was not taking any medication continuously. General condition was moderate, consciousness was clear and orientated and co-operative. Neurological examination revealed motor strength 1/5 and sensory deficit in the left upper, left lower and right lower extremities. Sensory and motor examination was normal in the right upper extremity. Brain CT scan was performed: Diffuse subarachnoid haemorrhages in both parietooccipitals, subdural haematoma in the interhemispheric falx, subdural haematoma reaching 7 mm in the thickest part on the right in both parietooccipitals (Picture 3 and 4), multiple displaced fractures extending towards the right frontal in both parietooccipitals were observed (Picture 1 and 2). No acute pathology was found on imaging of the spinal cord and consultation with neurosurgery was requested. The patient was referred to the operating theatre for emergency evacuation operation.

Picture 1



multiple displaced fractures extending towards the right frontal in both parietooccipitals

Conclusions: The most common examination findings in traumatic brain haemorrhage are severe headache and nuchal rigidity. In addition, nausea, vomiting, dizziness, diplopia, seizure, confusion and intracerebral haemorrhage may be present. As in our case, neurological deficits varying according to the size of the haemorrhage and the localisation of compression may be encountered rarely. Treatment of haematomas with mass effect and neurological deficits is surgical.

Keywords: Traumatic Brain Injury, Subarachnoid Haemorrhage



Ref No: 4344

Pub No:

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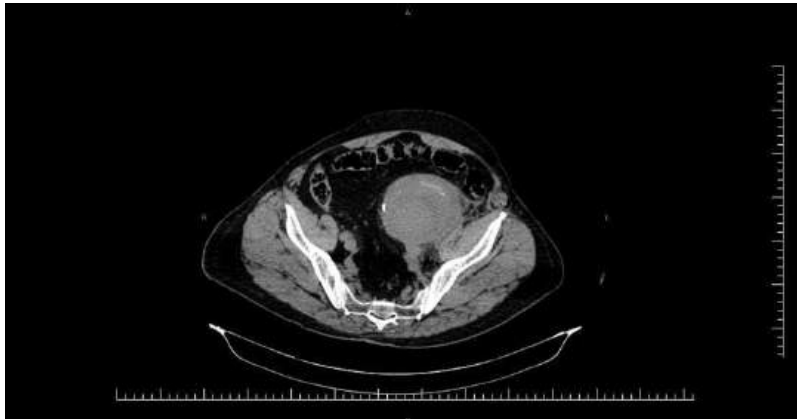
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Background and aim: Isolated aneurysms of the iliac arteries are extremely rare and are the most common aneurysm of all aneurysmal diseases. They account for less than 2%. Although their natural history has not been fully and precisely elucidated, it is known that they carry a serious risk of rupture when enlarged. Repair is recommended in good-risk patients with aneurysms over 3.5cm in diameter.

Case: A 67-year-old man presented with left lower quadrant pain that started 45 minutes. Abdominal examination revealed positive left lower quadrant defense. Femoral pulses were patent. Arrival vitals: TA:130/100 mm/hg Pulse:114 beats/min Fever:36 °C In the tests obtained from the patient, wbc:15.8 thousand/mm³ crp:102 .8 mg/L hgb:14.2 g/dL creatinine:1.87 mg/dL. On non-contrast abdominal computed tomography , a high density collection (hematoma?) was noted in the retroperitoneum on the left was in pain. The patient was consulted to the relevant specialty. The risks were explained to the patient and abdominopelvic CT angiography was performed. On this imaging, there was a 103x77 mm fusiform aneurysmatic enlargement of the left main iliac artery with partial thrombosis. Adjacent suppur formations were observed on the left lateral wall suggesting aneurysm rupture. There was suspicious contrast extravasation towards the wall. The patient was hospitalized in the cardiovascular surgery clinic for emergency operation. 2 stent grafts were placed and the patient was followed up clinically for 3 days. Then the patient was externed.

iliac artery aneursym rupture



Conclusions: Most iliac artery aneurysms are recognized by chance during imaging studies for other reasons. The symptoms are usually due to compression of surrounding anatomical structures. Since these symptoms are not directly related to the arterial system, the diagnosis may be delayed. Especially if the IAA diameter is over 3 cm, the risk of rupture increases significantly. Therefore, symptomatic iliac artery aneurysms larger than 3.5 cm in diameter should be repaired immediately.



Keywords: iliac artery aneurysm rupture, stomachache



Ref No: 4383

Pub No: P-090

DON'T CALL IT MYALGIA: LIMB SARCOMA

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Background and aim: Malignant mesenchymal tumours are more common in men on their frequency increases with age. %40 of tumours occur in the lower extremities (thighs , hips) % 30 in the retroperitoneum and trunk , In its aetiology radiation therapy, chemical-thermal burns, trauma, HHV-8, genetic syndromes, translocations, chlorophenol exposure plays a role. Depending on the growth of the tumour, leg pain ,gait disturbance , bone tenderness, bone fracture , anaemia, weight loss, fatigue, weakness, numbness and weakness in the arm may occur.

Case: 21 years old male admitted to emergency department with leg pain , swelling and fatigue for a long time. Arrival vitals, blood pressure : 140/80 mm/Hg temperature: 37.2 degrees pulse: 68 min/beat saturation: 99 mm/Hg. Physical examination reveals tenderness in the left lower quadrant of the abdomen and palpable swelling in the upper left leg. Limb pulses are palpable capillary filling is natural and there is no motor and sensory deficit. Investigations CRP :178 mg/dL WBC : 18.27 (1000 uL) Hb :6.3 gr/dL. Superficial and abdominal ultrasonography: the echo of the left psoas muscle was heterogeneous and increased in size on all traceable sections. There is a dense collection of fluid with a diameter of 93 mm at the widest part.(psoas abscess?) Contrast-enhanced lower upper abdominal tomography: 15 cm mass extending from the left psoas muscle to the iliopsoas was observed. The patient hospitalised for follow-up and treatment.

Conclusions: Although malignant mesenchymal tumour is rare in young patients. It is a diagnosis that should be kept in mind. A multidisciplinary approach is required. Our case has been determined as inoperative and chemotherapy process has started. Soft tissue tumours should be considered in the differential diagnosis of local symptoms such as prolonged swelling, pain and numbness in the extremities and systemic symptoms such as fatigue and anaemia.

Figure 1

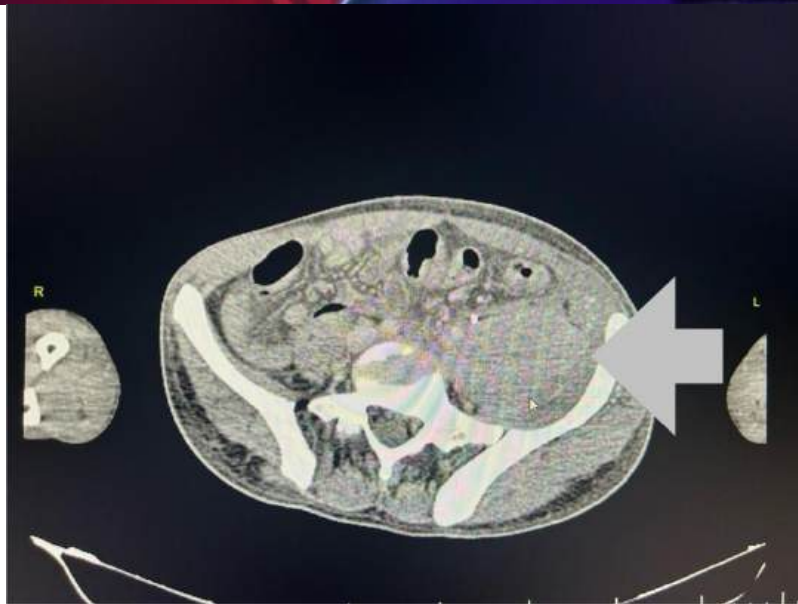


Figure 2

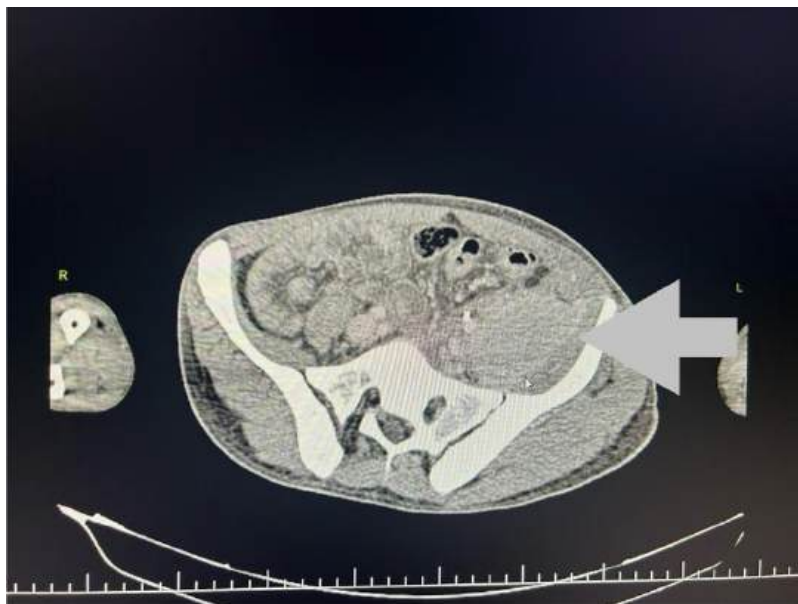


Figure 3

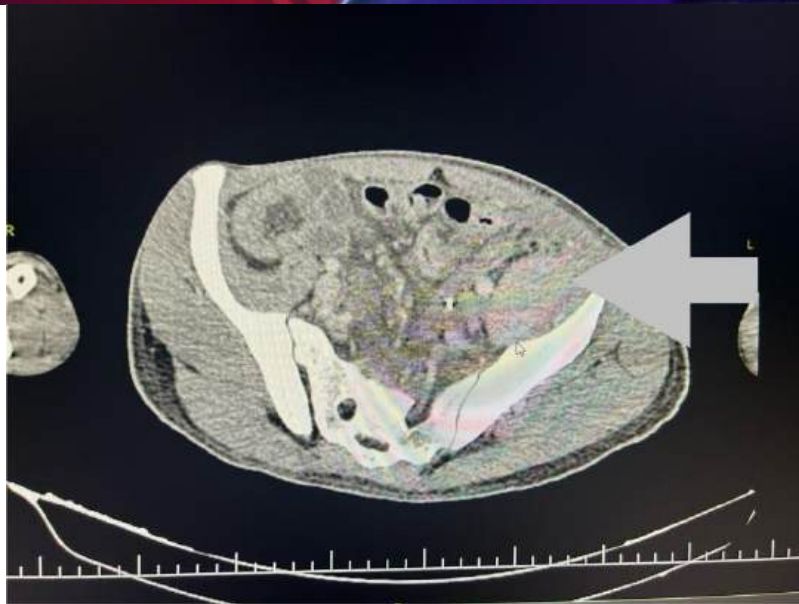


Figure 1 ,2,3 : Mass extending from the psoas muscle to the iliopsoas (contrast-enhanced lower upper abdominal tomography)

Keywords: Myalgia, Anaemia, Palpable Swelling of the Extremity, Malignant Mesenchymal Tumour

Ref No: 4438

Pub No: P-100

A rare cause of acute abdomen: Perforation of uterus due to IUD

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Background and aim: Intrauterine contraception is effective, safe, and well tolerated by most people. It has become a popular method of contraception. Despite the overall safety profile, side effects and complications can occur at the time of insertion and at different time points following insertion. It is necessary to be known as a clinician as a cause of abdominal pain and in some cases, serious complications. In this case we aimed to show one of these serious complications which has been definitively diagnosed and treated with surgical exploration and intervention.

Case: 44 years old woman patient has applied to ED ambulatory. She had abdominal pain for a few days and her vital signs were stable. She had extensive pain all over her abdomen but pain was more intense at lower quadrants. At physical examination her abdomen was tender at all quadrants, at lower quadrants guarding and rebound was present. There weren't any concomitant complaints. There was significant leucosytosis (18000/mm³). There were no additional pathologic findings. Her B-HCG was negative. At her history there wasn't any prior surgery and comorbid disease. Contrast enhanced CT scan was performed for diagnosing the cause of acute abdomen. CT detected free fluid at Douglas. An IUD was present in uterus. Some of jejunal segments were distended with no findings of ileus. With no clear cause of her pain and complaints she has been admitted to hospital for observation. After 2 days of observation a diagnostic surgical intervention has been performed by general surgery department. At exploration it is detected that the IUD has perforated the uterus from a small segment (3-4 mm). And this perforation has been formed to an abscess while omentum and some of jejunal segments has made adhesion to this segment and causing with this phenomenon.

IUD elonging to posterior of uterus



Eminent jejunal segments



Free fluid at Douglas



Conclusions: Although its safety and well toleration the IUDs can cause some serious complications. Clinicians must be alert for these circumstances and consider its complications at differential diagnosis of abdominal pain.

Keywords: abdominal pain, IUD, Abscess, Perforation, Acute abdomen



Ref No: 4620

Pub No: P-102

Squamous Cell Carcinoma Arising From The Base Of The Tongue

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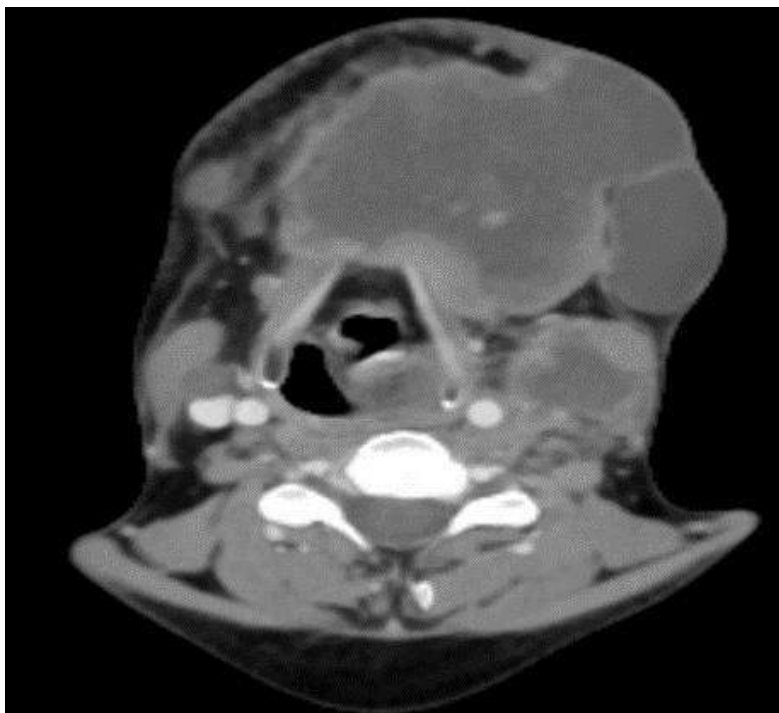
Background and aim: Squamous cell carcinomas (SCC) account for more than 95% of tongue cancers. The tumor is usually localized to the sides and base of the tongue. Tongue cancers affect the male population more than females. In recent years, there has been an increase in tongue malignancies in young individuals under 40 years of age. While the incidence among young patients was 5.3% in the 1950s, it was reported to be 7.2% in the 1980s and increased to 16.5% in current studies

Case: A 29-year-old male patient stated that he had a wound on the right half of the tongue 1 year ago, redness and swelling had increased on the left side of the neck for the last month, and discharge had been coming from the wound for the last few days. Vital signs: Blood pressure: 113/72 mmHg, pulse rate: 78 beats/minute, temperature 36.4 °C, sat O2 97%. On exploration, a collection of fluid compatible with a large abscess focus extending subcutaneously was observed. Contrast-enhanced neck tomography revealed multiple thick-walled areas of predominantly cystic density affecting the root of the tongue, extending to the floor of the mouth and tending to merge with each other, the largest of which measured 73x53 mm. There were also cystic necrotic areas of similar nature in both cervical regions. Abscess drainage was performed by the otorhinolaryngologist and the patient was discharged with oral antibiotics. The patient was readmitted to the emergency department 10 days later with complaints of difficulty in opening the mouth and decreased oral intake. The patient with a Ca level of 15.6 mg/dL was admitted to the internal medicine clinic.

Large abscess focus spreading to the base of the neck



Cystic necrotic areas in the cervical region



Necrotized area on the side and base of the tongue



Conclusions: According to clinical observations, tongue cancer appears to be more aggressive in young patients than in older patients. In fact, it is not an unpreventable disease. Although it is located in a region that can be diagnosed by inspection, the public should be sufficiently aware of tongue carcinomas, whose early diagnosis is often missed.

Keywords: squamous cell carcinoma, tongue cancer, young adults



Ref No: 4796

Pub No: P-057

Cortisone: Can Not Do Without It

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Background and aim: Protein-losing enteropathy is a syndrome characterized by excessive protein loss from the gastrointestinal system and can be seen in various clinical conditions (1). Acute adrenal crisis is a life-threatening emergency that requires prompt diagnosis and treatment. It is often triggered by intercurrent infections in patients with adrenal insufficiency (2).

Case: A 26-year-old female patient was brought to the emergency department by ambulance with complaints of loss of appetite persisting for two days. Upon arrival, the patient was confused, and her Glasgow Coma Score was 9 (E3M4V2). The patient had a generalized edematous appearance, with a blood pressure of 40/20 mmHg, pulse rate of 90 beats/min, oxygen saturation (SpO₂) of 99%, temperature of 36°C, and blood glucose level of 40 mg/dL. Her medical history revealed that she had undergone duodenojejunostomy due to Superior Mesenteric Artery Syndrome, followed by antrectomy and Roux-en-Y surgery due to pyloric stenosis. It was also noted that she had developed protein-losing enteropathy secondary to multiple surgeries and was on corticosteroid therapy. Blood tests showed hemoglobin at 8.7 g/L, platelets 42,000/μL, WBC 21,000/μL, sodium 124 mmol/L, chloride 89 mmol/L, calcium 4.88 mg/dL, AST 375 U/L, ALT 162 U/L, and albumin 12 g/L. The patient was thought to have developed intravascular volume loss due to decreased oncotic pressure secondary to hypoalbuminemia, which likely contributed to her hypotension. Inotropic support, hydration, and dextrose infusion were initiated. Given the absence of a tachycardic response to hypotension and the presence of hypoglycemia, Acute Adrenal Crisis was suspected. After consultation with endocrinology, albumin and hydrocortisone therapy were initiated via a femoral central catheter. Following the initial treatment, partial improvement was observed in the patient's blood pressure and general condition. She was transferred to the intensive care unit for further evaluation and treatment.

Conclusions: Acute adrenal crisis can present with symptoms such as severe weakness, fatigue, nausea, vomiting, abdominal pain, and dehydration. Hypotension, shock, and progression to altered consciousness are common. Laboratory findings such as hyponatremia, hyperkalemia, elevated creatinine, and hypoglycemia are frequently observed (2). In addition to symptomatic treatment, fluids containing dextrose should be administered, and an initial dose of 100 mg hydrocortisone IV bolus should be given, followed by hydrocortisone every 6-8 hours (3).

Keywords: acute adrenal crisis, hydrocortisone, hypoalbuminemia, hypotension, tachycardia



Ref No: 4816

Pub No: P-055

Postcoital subarachnoid hemorrhage

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Background and aim: Subarachnoid hemorrhage (SAH) is a medical emergency characterized by the sudden rupture of a blood vessel, leading to bleeding into the subarachnoid space surrounding the brain. Postcoital SAH is a rare phenomenon, believed to be associated with the physical exertion or increased blood pressure that occurs during sexual activity (1). Herein, we presented a patient suffering from subarachnoid hemorrhage after sexual intercourse.

Case: A 60-year-old male patient with a history of hypertension reported to his partner a sudden onset of severe headache during sexual intercourse. Immediately after mentioning the headache, the patient lost consciousness and collapsed. He was brought to the emergency department by the 112 emergency medical team. Upon arrival, the patient was confused, with a Glasgow Coma Scale (GCS) score of 14, and displayed a tendency to fall asleep during the evaluation. As far as communication could be established, the patient described the pain as "worst headache of his life". Upon arrival, his blood pressure 180/110 mmHg, heart rate 107 bpm, SpO2 94%, temperature 36.5°C. There was neck stiffness in his physical examination and there was no other neurological finding. Also, the other system examinations were normal. Initial assessment included a non-contrast computed tomography (CT) scan of the brain, which revealed subarachnoid hemorrhage. The bleeding was noted bilaterally in the Sylvian fissures, extending to the temporal and parietal regions, and was also present in the basal cisterns and supratentorial levels, particularly around the circle of Willis. After consultation with neurosurgeon, the patient transferred to a higher-level center for further diagnostic evaluation, treatment and follow-up.

Conclusions: Though largely benign, the headache may seldom be a symptom of an underlying life threatening neurologic disorder such as subarachnoid hemorrhage. Therefore, emergency physicians should take the headache after sexual intercourse seriously and evaluate it carefully with cerebral imaging.

Keywords: postcoital subarachnoid hemorrhage, headache, cerebral imaging

Ref No: 4845
Pub No: P-004

Emergency Approach To Gunshot Wound To The Head

Yasin Bülbüloğlu¹

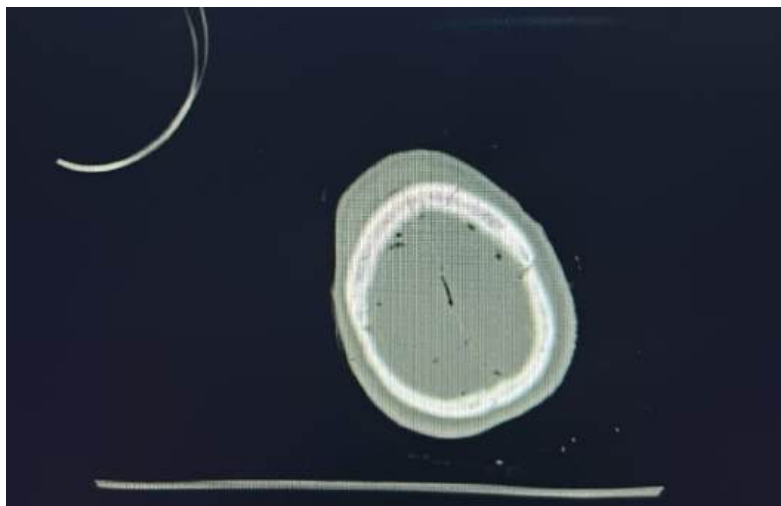
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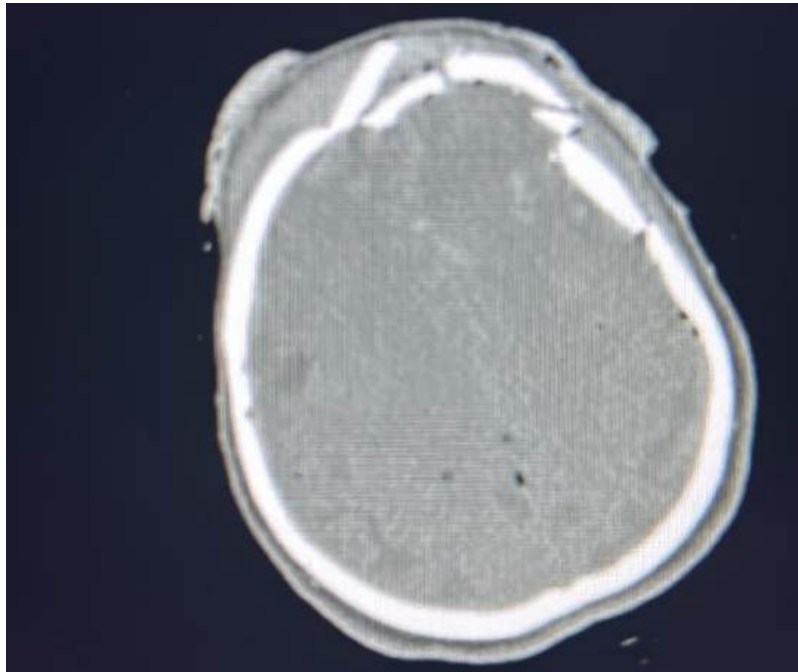
Background and aim: Emergency approach to gunshot wound to the head. A 52-year-old female patient was brought to the emergency department by ambulance with a gunshot wound to the head. Information obtained from her family members suggests that the incident was a suicide attempt, although the definitive conclusion will be determined by the legal process.

Case: Initial Patient Status: GCS: 11 Bilateral light reflexes: ++//+++ Consciousness: Confused, opens eyes to verbal stimuli Pain avoidance reflex: Present Vital signs: Blood pressure: 100/80 mmHg Pulse: 67 beats/minute Respiratory rate: 28 breaths/minute Temperature: 36.7°C SpO₂: 85% Intervention: The patient was intubated and stabilized. Consultation with the relevant department was requested. Physical Examination: Left temporal region: 0.5 cm diameter, star-shaped wound with irregular edges, actively bleeding Right temporal region: 2 cm diameter, irregular, fragmented, actively bleeding wound Left upper eyelid: 1 x 2 cm area of swelling and bruising No other wounds, scars, incisions, scratches, or dermabrasion were observed. Central Imaging Findings of the Patient: Extensive fragmented displaced fracture lines were observed in the bilateral frontal bones. Parenchymal contusion areas and parenchymal hematoma areas were present, indicating brain contusions and bleeding within the brain tissue. Sulcal hyperdensities consistent with SAH (subarachnoid hemorrhage) were observed. Extensive fragmented displaced fracture lines were observed in the bilateral frontal bones. Parenchymal contusion areas and parenchymal hematoma areas were present, indicating brain contusions and bleeding within the brain tissue. Subdural hematoma at the level of the falx cerebri, multiple bone fragments in the bilateral frontal regions, pneumocephalus foci in the vicinity of the tentorium cerebelli were observed.

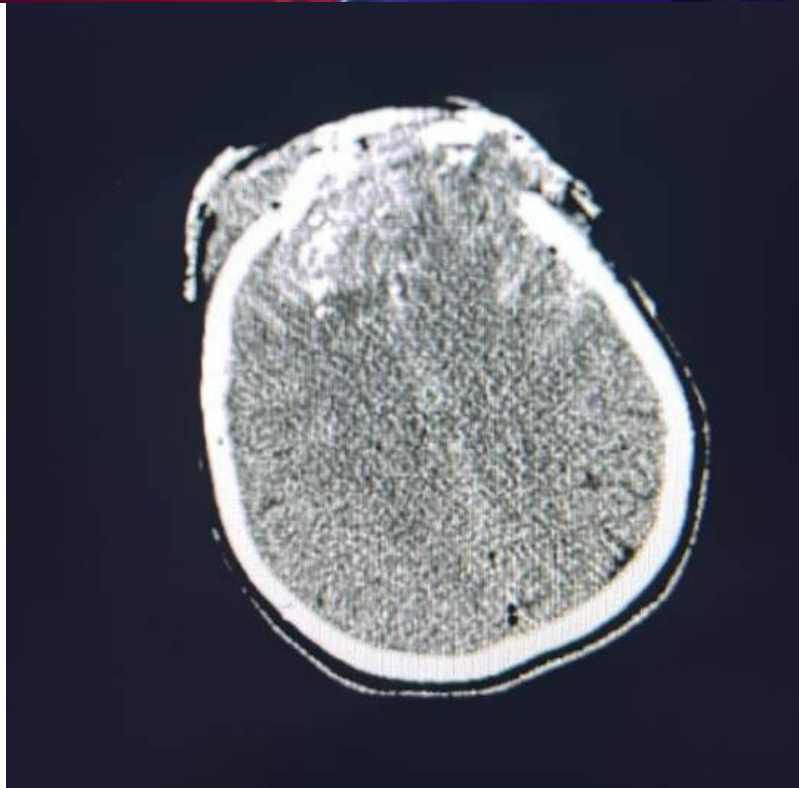
pneumocephalus



multiple bone fractures



subarachnoidal hemorrhage



Conclusions: The patient was admitted to the neurosurgery intensive care unit (ICU). The neurosurgery team did not consider immediate surgical intervention. The patient is currently being monitored in the ICU with mechanical ventilation.

Keywords: gunshot wound, subarachnoidal hemorrhage

Ref No: 4878

Pub No: P-140

UNEXPECTED ABDOMINAL PAIN OF A YOUNG PATIENT: RENAL INFARCTION

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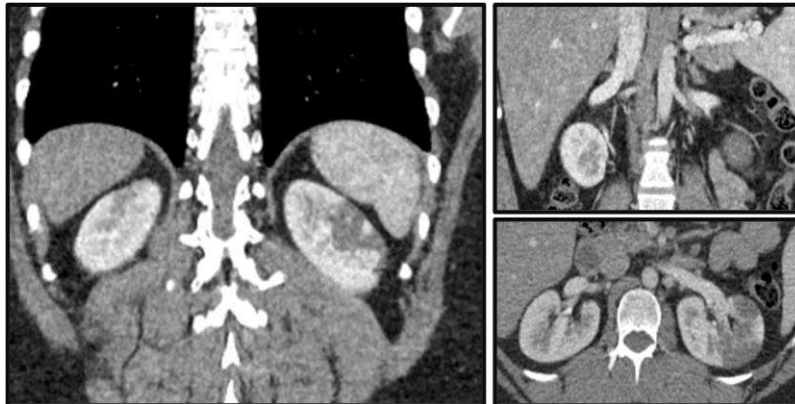
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Background and aim: Acute renal infarction is a rare cause of abdominal pain with a low diagnostic rate (40%). Its symptoms often resemble those of other urinary system disorders and typically present with non-specific signs. While risk factors such as atrial fibrillation, atherosclerosis, hypercoagulability, and cardiovascular diseases are common, renal infarction can also occur without these factors. Early diagnosis and treatment are crucial to preserve renal function. In this report, we present a case of renal infarction in a young patient without risk factors, emphasizing that it can occur even in absence of typical risks.

Case: A 25-year-old male with a known diagnosis of asthma presented to the emergency department with abdominal pain that started 8 hours prior. GCS:15, and vital signs were normal. Physical examination revealed tenderness in the left lower quadrant, without guarding or rebound. Costovertebral angle tenderness(CVAT) was negative bilaterally. Laboratory results showed WBC:15,000/μL, CK:800U/L, AST:71U/L, ALT:53U/L, lactate:1.52mmol/L, and LDH:540U/L. Urinalysis was normal, and a renal ultrasound revealed no stones, pyelonephritis, or hydronephrosis. The patient reported recent increased physical activity and generalized body pain. As the etiology remained unclear, an abdominal CT angiography was performed, revealing a possible embolism in the left renal artery and an infarct area in the left kidney (Figure-1). The patient was referred for interventional treatment and further evaluation.

Figure 1. A possible embolism in the left renal artery and an infarct area in the left kidney in abdominal CT angiography



Conclusions: Acute renal infarction is an emergency that can present with non-specific symptoms like flank pain, nausea, fever, and hematuria, without specific laboratory findings. It should be suspected in patients with sudden abdominal-flank



pain, reduced renal function, elevated LDH, hematuria, or proteinuria, and no signs of urolithiasis or any other identifiable cause. Surgical intervention is preferred in cases of traumatic injury, renal artery dissection, or aortic dissection, while percutaneous endovascular therapy is recommended for other causes. These treatments can be effective up to two days after infarction onset.

Keywords: renal infarction, non-specific symptoms, abdominal CT angiography, young



Ref No: 4968

Pub No: P-035

Air Embolism Following Thrombectomy: A Case Report

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Background and aim: Air embolism is defined as the entry of air into the venous or arterial system through direct communication. Venous air entry occurs with trauma, central venous catheter placement and intravenous contrast injections. In humans, 200-500 ml of air given at 100 ml/second acutely (3-5 ml/kg) has been defined as fatal (1). Although there are a wide variety of nonspecific presentations, the most common symptoms are: dizziness, dyspnea, chest pain, hypoxia and hypotension (2). In this case report, we aim to present the case of air embolism, which is a rare condition

Case: A 62-year-old female patient presented to emergency department with complaints of abdominal pain and dyspnea. It was learned from her history that she was receiving active chemotherapy and had thrombectomy 3 days ago due to acute deep vein thrombosis. Her vital signs are Spo2 % 93, BP: 94/61 mm/Hg, pulse: 68 bpm, and fever: 36.5°C. Patient's comorbid diseases are small cell lung cancer, hepatitis B, atrial fibrillation. Patient's medications were bisoprolol, entekavir, enoxaparin, Contromal, Chemoset. On physical examination, lung sounds were decreased in the left infrascapular region, there was a difference in diameter in the left lower extremity. Pulmonary CT angiography was planned due to ongoing dyspnea and hypoxia in our patient. Air spaces were detected in the pulmonary arterial lumen in the patient's CT angiography taken in the emergency room, and it was thought that the patient had an air embolism after a recent mechanical thrombectomy. Anticoagulant treatment was planned for our patient, who was diagnosed with air embolism in the emergency department, and he was evaluated by the relevant clinics and hospitalized. After our patient was hospitalized for pulmonary medicine, he was discharged with medical care.

AİR EMBOLİZM İN THE BT SCAN



AIR SPACE IN THE PULMONARY ARTERIA

Conclusions: Air embolism can be difficult especially since the initial signs and symptoms are nonspecific. Treatment should focus on supportive care, mechanical removal of the air embolism if possible and hyperbaric therapy(3). This diagnosis should definitely be considered in patients who deteriorate after central catheter insertion.

Keywords: Embolism, Thrombectomy, Hypoxia, Catheter



Ref No: 5041

Pub No: P-118

FATAL SKIN LESIONS: CARBAMAZEPINE-ASSOCIATED STEVENS-JOHNSON SYNDROME

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Background and aim: Stevens-Johnson syndrome (SJS) is a rare, life-threatening skin reaction involving mucosal loss and systemic symptoms. Over 80% of cases are drug-induced. SJS and toxic epidermal necrolysis (TEN) are distinguished by skin detachment: SJS affects <10% of body surface, SJS/TEN overlap 10-30%, and TEN >30%. Trigger drugs often have a long half-life and are systemically administered. SJS/TEN usually develops within days to eight weeks of starting a new drug.

Case: A 49-year-old female with hypertension and epilepsy presented to the ED with widespread rash. Her medications included lamotrigine, piracetam, citalopram, risperidone, quetiapine, betahistine, and recently added carbamazepine. She had been immobile, fed via NG tube, and had frequent hypotensive episodes over past month. Her vital signs were as follows: blood pressure:93/66mmHg, heart rate:124beats/minute, temperature:36.5°C, oxygen saturation:92%. Erythematous, desquamating plaques with a tendency to coalesce were observed on the scalp, face, forehead, cheeks, posterior and anterior trunk, mons pubis, inguinal folds, and legs (Figures 1-3). The patient had started carbamazepine 1.5 months earlier after a neurology visit. Arterial blood gas analysis showed pH: 7.43, pCO₂: 41 mmHg, pO₂: 76 mmHg, Base Excess: +3, HCO₃: 27 mmol/L, oxygen saturation: 96%, lactate: 2.75 mmol/L, sodium: 130 mmol/L, potassium: 3.9 mmol/L. She was diagnosed with carbamazepine-induced SJS and, after clinical deterioration, was intubated and transferred to the ICU.

Conclusions: In patients with skin rash, a wide range of pathologies must be considered. While most rashes are benign, it is crucial to assess the patient's condition, rash type, onset, and medications (e.g., antiepileptics, antipsychotics). SJS, a severe mucocutaneous reaction, should be suspected, especially in patients using carbamazepine. The Severity-of-Illness Score for Toxic Epidermal Necrolysis (SCORTEN) score is used to estimate mortality in SJS. A score of 3 or higher is associated with a high mortality rate.

Keywords: Stevens-Johnson syndrome, toxic epidermal necrolysis, carbamazepine, skin detachment, SCORTEN

Ref No: 5426

Pub No: P-132

A POST-TRAUMATIC AIR: PNEUMOPERITONEUM

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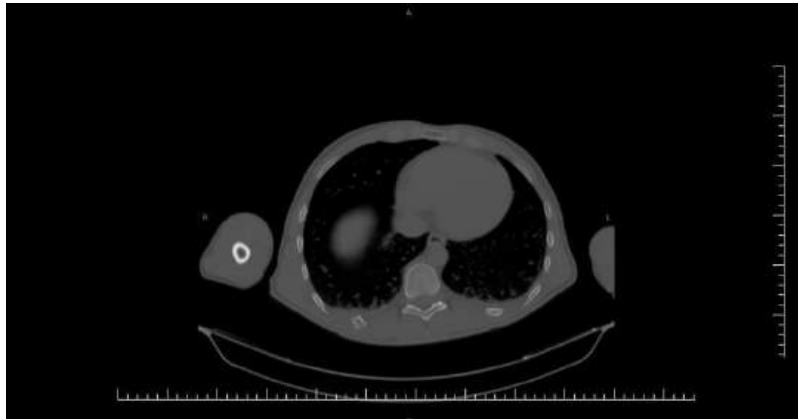
Background and aim: Pneumoperitoneum with air density in the peritoneal cavity is frequently caused by visceral perforation and may present with clinical signs of peritonitis. Spontaneous idiopathic pneumoperitoneum is an even rarer condition than visceral perforations or other causes of intra-abdominal free air. We aimed to present our approach to a case of trauma-induced pneumoperitoneum and the treatment strategies in the literature.

Case: A 34-year-old male patient was admitted to our hospital with a vehicular traffic accident. The patient, who was sitting in the front right seat, was hit by another vehicle from the side and went out of the window. There was no known disease in his medical history. Physical examination revealed a superficial incision on the lateral left eye. Neurologic examination revealed no significant physiopathologic findings. A 6-7 mm foreign body was removed in the left frontal subcutaneous region. Abdominal examination revealed tenderness in the right upper quadrant. He described pain in the right lower ribs with palpation. Laboratory tests revealed AST 127 IU/L, ALT 97 U/L, TIT erythrocyte 36 HPF, Hb 14.4 g/dl. There was no significant hemoglobin decrease in hemogram follow-up. Contrast-enhanced abdominal and thoracic computed tomography revealed air densities between the right diaphragm and anterior thoracic wall in favor of benign traumatic pneumoperitoneum and displaced fracture in the right 10th costa. The patient was interned for follow-up by general surgery.

PNEUMOPERITONEUM



Displaced fracture



Conclusions: Pneumoperitoneum may develop due to many causes. Clarifying the etiology is important for patient approach and treatment decision. When pneumoperitoneum developing after blunt trauma is evaluated clinically, conservative treatment approaches can be chosen.

Keywords: PNEUMOPERITONEUM



Ref No: 5442

Pub No: P-084

Saturday night syndrome

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Background and aim: The term "Saturday Night Syndrome" has become synonymous with radial nerve compression due to direct pressure from a rigid object. It typically occurs after deep sleep on the arm following alcohol intoxication. The widely accepted origin of the term is its association with Saturday night entertainment. The purpose of presenting this case is to remind clinicians of the rarely seen Saturday Night Syndrome in the emergency department (ED)

Case: A 34-year-old male patient with no known chronic illnesses presented to the ED on a Saturday night with sudden onset of weakness in the right arm, along with drooping of the right side of his mouth. The patient was reported to have consumed about 1.5 bottles of whiskey approximately 2-3 hours prior. The alcohol was purchased from a local liquor store. Three hours after the onset of symptoms, the patient arrived at the ED via 112. He was, oriented, and cooperative. The nasolabial fold on the left side was diminished. The patient was able to articulate individual words but could not form sentences when challenged. Tone was felt in the right arm, but the patient could not overcome gravity. Muscle strength in other extremities was normal. The patient was diagnosed with hyperacute stroke and underwent santral imaging. The neurology department was consulted. Upon reviewing the imaging studies, no intracranial hemorrhage, vessel occlusion, or arterial dissection was found. No abnormalities were detected in the blood gases

Conclusions: The patient was started on a 5% dextrose solution. It was observed that with hydration and the passage of time, the patient's symptoms improved. The patient began to speak and actively use the right arm. No acute pathology was detected in the blood tests or imaging. Saturday Night Syndrome was considered. The patient was discharged in good health after 3 hours in the ED.

Keywords: Saturday night emergency syncope



Ref No: 5498
Pub No: P-020

Liver Function Tests Normal Hepatic Encephalopathy

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Background and aim: Hepatic encephalopathy (HE) is a common complication of liver disease, affecting 30-40% of all patients with liver cirrhosis (LC) at some point in their lives. There are also other etiologies besides cirrhosis or acute liver failure, such as genetic defects in urea cycle enzymes leading to hepatic hyperammonemia. In this case presentation, we aim to contribute to the literature by presenting a 75-year-old male who presented to our emergency department with HE in the absence of LC.

Case: A 75-year-old male patient presented to our emergency department 3 days after a colonoscopy with altered consciousness and decreased oral intake. The day before his presentation he ate approximately two plates of meat that evening. On arrival, the patient's general condition was poor, but vital signs were stable. He had no orientation or cooperation. GCS: 11. Neurological examination could not be performed in detail; IR+/-, Babinski: -, no neck stiffness. All extremities were mobile. Abdomen was soft, with no defense or rebound tenderness. The patient's history included pancreatic cancer (Whipple procedure), diabetes mellitus and a long history of alcohol use (he had not consumed alcohol for 4-5 years). Laboratory tests showed normal liver function tests (LFTs) and other biochemical tests. Tox Drug and valproic acid levels were normal. Due to altered consciousness, the ammonia level was measured at 161.5 µg/dl (normal range: 18.7-96.9). BT, MR, USG, EEG and LP were clean, and no pathology was suspected by the relevant departments, leading to admission to the gastroenterology ward with a diagnosis of Non-Hepatic Hyperammonemic Encephalopathy (NHAEE).

Conclusions: In cases of general condition deterioration and reduced oral intake, metabolic causes such as hyperammonemia should not be overlooked. Hepatic encephalopathy should be considered if there is any liver disease. Even in the absence of liver disease, hyperammonemia should be considered, especially following abdominal surgeries or invasive procedures.

Keywords: hyperammonemic encephalopathy, hyperammonemia, liver disease, hyperammonemic, encephalopathy, hyperammonemia, liver disease, encephalopathy, hyperammonemia, liver disease

Ref No: 5516
Pub No: P-021

Hypokalemia-Induced Cardiac Arrest in an Anorexia Nervosa Patient Presenting with Hand Numbness: Case Report

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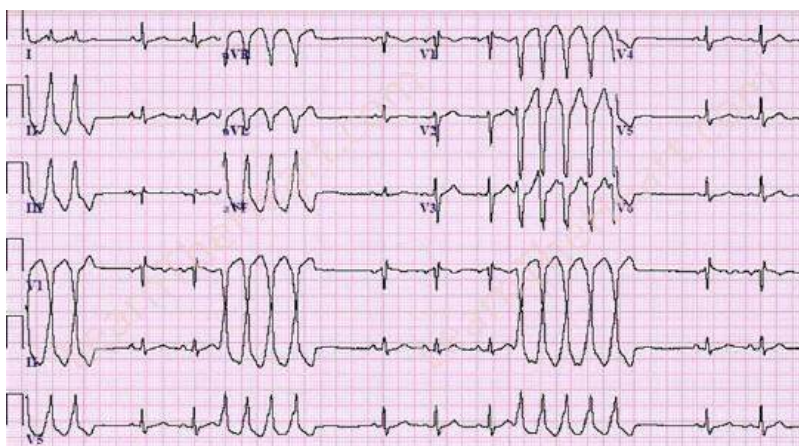
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Background and aim: Electrolyte imbalances, particularly hypokalemia and hypocalcemia, are well-known triggers for life-threatening arrhythmias such as ventricular fibrillation (VF). These imbalances, if not diagnosed and treated early, can result in cardiopulmonary arrest. This case report demonstrates the rapid development of fatal arrhythmias in a young female patient recently diagnosed with anorexia nervosa, highlighting the importance of careful monitoring and early intervention in such cases.

Case: A 16-year-old female presented to the emergency department with hand and arm numbness and contractions that began during a flight. She reported four episodes that day. A month earlier, she was suspected of having anorexia nervosa and was prescribed oral potassium, magnesium, and calcium. Neurological examination was normal (GCS 15). An ECG in the yellow zone showed nonsustained ventricular tachycardia, leading to her transfer to the red zone, where she experienced a generalized tonic-clonic seizure, followed by respiratory arrest requiring CPR. Initial blood gas analysis revealed severe hypokalemia (2.17 mmol/L), hypocalcemia (0.85 mmol/L), metabolic alkalosis, and electrolyte imbalances. Despite treatment with intravenous electrolytes and multiple defibrillations, spontaneous circulation could not be restored. The patient was pronounced dead after 110 minutes of resuscitation.

Figure: Nonsustained Ventricular Tachycardia



Nonsustained ventricular tachycardia is a brief episode of rapid heartbeats originating from the ventricles, lasting less than 30 seconds.



Conclusions: Emergency departments deal with a wide range of symptoms. Atypical symptoms like hand numbness can indicate anything from anxiety to severe pathologies, requiring careful evaluation. Our patient was severely cachectic and on potassium and calcium replacement therapy. An ECG is vital for detecting electrolyte imbalances and arrhythmias early. In cases of generalized tonic-clonic seizures, cardiac causes should be considered. For cardiac-origin seizures, cardioversion or defibrillation is preferred over standard seizure medications. Magnesium levels should also be monitored during electrolyte replacement, as hypomagnesemia can contribute to resistant arrhythmias. In conclusion, early intervention and a multidisciplinary approach are essential in managing cardiac complications from electrolyte imbalances.

Keywords: Anorexia Nervosa, Hypokalemia, Seizure



Ref No: 5864
Pub No: P-083

A Rare Type of Tamponade: Cardiac Tamponade Developing Without Traumatic Laceration

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Background and aim: Pericardial effusion secondary to fluid accumulation results in increased intrapericardial pressure, which restricts ventricular filling during diastole and affects stroke volume. Cardiac tamponade is most commonly associated with neoplastic, uremic, cholesterol, myxedema, tuberculosis, and parasitic events. While medical treatment may provide some time for certain patients, definitive treatment involves the percutaneous or surgical drainage of pericardial fluid. In this article, the diagnosis and treatment of a case of cardiac tamponade without laceration after a traffic accident is presented.

Case: A 42-year-old male patient who had a traffic accident was brought to our emergency department by ambulance. The patient complained of chest pain and shortness of breath. He had no previous medical conditions and was not on any medications. His general condition was fair, he was conscious, oriented, and cooperative. On chest examination, there was pain and tenderness in the bilateral anterior and mid-chest areas, but the breath sounds in both lungs were normal. The vital signs were as follows: BP 70/50 mmHg, HR 105 beat/min, RR 15 breaths/min, T 36.6°C, and SpO2 92%. Laboratory findings showed WBC 39,000/mm³, hemoglobin 16 g/dL, INR 1.5, and arterial blood gas analysis revealed a pH of 7.23 and lactate of 5.5 mmol/L. A non-contrast chest CT scan revealed bilateral contusion areas and displaced rib fractures in the anterolateral upper zones of the left lung. An emergency echocardiogram showed a pericardial effusion measuring 19 mm at its widest point, right ventricular compression, and a 'floating heart' appearance. The patient was taken for emergency surgery by cardiovascular surgery. The patient was discharged on the tenth postoperative day.

Conclusions: The clinical presentation in cardiac tamponade is related to the rate and amount of fluid accumulation. Cardiac tamponade is a life-threatening condition that requiring early diagnosis and treatment. Therefore, patients should be rapidly evaluated and treated urgently

Keywords: surgery, cardiac tamponade, blunt trauma



Ref No: 5880
Pub No: P-076

Nausea and Vomiting: Signs of Gastrointestinal Perforation

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Background and aim: Perforation of gastrointestinal system organs within the abdomen is a cause of acute abdomen and requires emergency intervention. Etiology: Corrosive or erosive substances, Peptic ulcer disease, Diseases such as diverticulitis and appendicitis, Inflammatory bowel diseases like ulcerative colitis or Crohn's disease, Tumors Traumatic. Patients typically present with abdominal pain, nausea, fever, and weakness. Physical examination may reveal abdominal tenderness, guarding, and rebound tenderness. In some cases, a boardlike rigidity may be observed. Diagnosis: Plain Radiography: The first imaging method to use when perforation is suspected. CT Scan: The most sensitive and specific test for diagnosing abdominal and pelvic perforation and determining the most likely etiology. Ultrasound: Preferred in children and pregnant women. In the emergency department, fluid resuscitation and sepsis prophylaxis should be administered, and urgent consultation with general surgery should be performed.

Case: A 26-year-old male patient was brought to the emergency department via ambulance with complaints of loss of appetite, nausea, vomiting, and abdominal pain for the past two days. The patient had a known diagnosis of schizophrenia and was not on medication. Upon initial examination, the patient's vital signs were: pulse 85 bpm, SpO2 94%, blood pressure 125/75 mmHg, and temperature 36.5°C. Physical examination: The patient showed tenderness and guarding in all quadrants of the abdomen. Laboratory tests showed: WBC $16.9 \times 10^3/\mu\text{L}$, Hemoglobin 145 g/L, Hematocrit 45.8%, Platelet $211 \times 10^3/\mu\text{L}$, CRP 1.63 mg/L. Following the examination, the patient's oral intake was stopped, and an urgent abdominal CT with contrast was performed. The imaging revealed free air density in the epigastric area and widespread fluid in the peritoneal cavity. The patient was urgently referred to general surgery. The patient underwent nasogastric tube and Foley catheter placement, received antibiotic therapy and hydration, and was promptly taken to surgery.

Figure 1: CT Image of Gastrointestinal Tract Perforation



Conclusions: Acute organ perforation is a rapidly worsening, life-threatening clinical condition. Prompt diagnosis and surgical intervention are lifesaving

Keywords: perforation, gis, nausea, vomiting



Ref No: 6269

Pub No: P-086

Management of ECG Changes in Hyperkalemia

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Background and aim: The definition of hyperkalemia varies and limits such as >5.5 , >6.0 , or >7.0 mEq/L are used to indicate severity. Hyperkalemia is often asymptomatic, but patients may complain of nonspecific symptoms such as palpitations, nausea, muscle pain, weakness, or paresthesia. Moderate and severe hyperkalemia can lead to cardiotoxicity. Chronic kidney disease is a common cause of hyperkalemia. Hyperkalemia is usually not seen until the glomerular filtration rate falls below 30 ml/min. This is commonly due to primary renal dysfunction. Reductions in urinary potassium excretion that occur in CKD can lead to an inability to maintain potassium homeostasis.

Introduction

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Case: A 76-year-old female patient admitted to emergency department with complaint of decrease of oral intake. She has chronic kidney failure with 3/7 Hemodialysis. Vitals signs: Blood pressure 125/78 mmHg, Heart rate 75 beats per minute, temperature 37°C, oxygen saturation 96% on room air. Initial ECG was bradycardia with wide QRS complex. On examination, there were no significant findings. Laboratory results were as follows: Creatinine 6.8 mg/dL, GFR 5 mL/min, Potassium 6.9 mmol/L, CRP 3.8 mg/L, WBC 10,000/uL Hgb 16 g/dL, pH 7.16. The patient was started on anti-potassium therapy due to hyperkalemia. Calcium replacement was repeated in the patient who developed complete AV block on ECG during follow-up. The patient underwent serial ECGs under anti-potassium treatment and her ECG returned to normal sinus rhythm during follow-up. Last serum potassium level was 5.9 mmol/L. The patient was transferred to receive dialysis in intensive care conditions.

Case



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Conclusions: Hemodialysis is very effective at reducing potassium concentrations in serum. Treatment with insulin or beta-2-agonists is generally discouraged as they substantially reduce the potassium clearance in a dialysis session, which is dependent on potassium exchange between the dialysed blood compartment and the intracellular space. This may be appropriate if there is likely to be a delay to treatment,

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Keywords: Hyperkalemia, Renal Disfunction, electrocardiography



Ref No: 6375

Pub No: P-115

Effects of electric shocks on the extremities

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Background and aim: Electrical injuries, a common cause of trauma, can occur as a result of low voltage (<1000v), high voltage (>1000v) or lightning damage and are often associated with high mortality and morbidity. Electrical injuries severity; It varies depending on the type of current, current strength, exposure time, body resistance and the path the current follows in the body, in addition to the electric field strength. Entry and exit points are also among the factors that determine the severity of electrical injuries. The most common entry site is usually the hand and then the head, while the exit site is usually the foot. In this case, we present calcaneus fractures, which are rare in electric shocks.

Case: Patient admitted with pain in the left calcaneus bone due to electric shock from a small electronic device General condition is good, GCS:15, he describes pain in the chest wall, back and left ankle. He describes widespread contractions in the body. Left ankle joint circumference is edematous, ecchymosis and bullae are present on the calcaneus, neurovascular examination is normal. Radiograph shows a calcaneus fracture (Figure 1-2).

figure1



figure2



Conclusions: Falling from heights or severe muscle contractions can cause skeletal system injuries. Fractures are more common in the long bones of the upper extremities and vertebrae. Vertebral injuries can lead to spinal cord injuries, further complicating the situation. In our case, we considered the calcaneus bone as the possible electrical output area. Muscle pain should not be confused with common myalgia that occurs in electric shocks. The result can be reached with a detailed physical examination of the lower extremities. Determining the electrical entry and exit points is important at this point. A good inspection of the patient and extremity examination guides us in this case.

Keywords: Fractures, Calcaneus, Electrical injuries



Ref No: 6550

Pub No: P-044

A Rare Intra-abdominal Infection: Kidney Abscess

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Background and aim: Renal abscess is an accumulation of purulent material in the renal parenchyma. It is a rare complication of urinary tract infections. Risk factors include anatomical abnormalities of the genitourinary tract, complicated or recurrent urinary tract infection, kidney stones or renal obstruction, immunodeficiency, pregnancy and finally diabetes mellitus.

Case: A 41-year-old woman presented to us with nausea, vomiting, weakness and dysuria. She had no known comorbidities or drug use. On physical examination, the abdomen was comfortable and there was no defense or rebound. Bilateral costal vertebral angle tenderness was negative. The patient's vital signs on admission were TA: 144/92 mmHg, Pulse: 110 beats/min, Body Temperature: 37.5°C. In blood tests, wbc:31.8 microliter (µl) in hemogram, cre:1.8 mg/dl Na:121 mmol/L crp:324 mg/L in biochemistry, 1726 erythrocytes, 71 leukocytes, 3+ leukocyte esterase were found in complete urinalysis. Ultrasonography performed in our center revealed a dense fluid collection in the subcapsular area of the right kidney lower pole, abscess? There was a report as abscess. In the computed tomography, an area that looked like a mass with a size of approximately 5 * 3 cm in the right kidney (figure: 1) attracted our attention. The patient was then interned to the urology service.

computed tomography



an area that looked like a mass with a size of approximately 5 * 3 cm in the right kidney.

Conclusions: Renal abscess is a rare intraabdominal infection and the symptoms are nonspecific as in our patient. Renal abscess should be considered in patients with pyelonephritis in the foreground if there is a rising fever despite intravenous antibiotic treatment.

Keywords: renal, abscess, diabetes mellitus, pyelonephritis



Ref No: 6681

Pub No: P-094

Herpes zoster ophthalmicus and altered cognition in a geriatric patient

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Background and aim: 3-10% of emergency department admissions are due to altered consciousness; accompanying complaints and the onset process guide the diagnosis. It is particularly common secondary to infections in geriatric patients. In this case, we aimed to discuss the differential diagnosis of a patient presenting with craniofacial rash and altered consciousness

Case: An 87-year-old male patient presented to our department with complaints of general deterioration, loss of balance, altered consciousness, facial swelling, rash, all of which had started on the day of admission. Upon arrival, the vital signs were as follows: BP: 110/60 mmHg, HR: 71 b/min, RR: 13/min, T: 36,4 °C, satO₂: 98%. The patient had a known history of diabetes mellitus and basal cell carcinoma (BCC). On physical examination, his general condition was moderate; he was lethargic, oriented and cooperative. Along the right dermatome line, extending from the scalp to the tip of the nose, there was a necrotic-crusted skin rash (Figures 1-2-3), which had reportedly started 3 days earlier. Both periorbital regions and the right side of the face exhibited edema, without crepitation. Eye movements were normal, ptosis, chemosis, purulent discharge were observed in the right eye. The patient also reported newly developed blurred vision in the right eye, while other systemic and neurological examinations were unremarkable. Laboratory tests revealed wbc: 12.8003 µ/L, glucose: 424 mg/dl, crp: 66 mg/L, na: 124 mEq/L, other laboratory results within normal. Since no acute central pathology was detected, the clinical presentation was considered to be related to craniofacial rashes. Due to the patient's history of BCC, he was referred to the dermatology clinic with the diagnosis of herpes zoster ophthalmicus. He was monitored for 20 days, and developed blindness and delirium.

Conclusions: Herpes zoster ophthalmicus is a significant cause of blindness. If lesions involve the side of the nose (Hutchinson's sign), corneal lesions are reported to accompany the condition. Central nervous system involvement is a very rare complication. Early diagnosis and treatment are effective in reducing mortality and morbidity.

figures 1



figures 2



figures 3



Keywords: geriatrics, herpeszosterophthalmicus



Ref No: 6691

Pub No: P-059

A RARE CASE IN BLUNT ABDOMINAL TRAUMA: PANCREATIC INJURY

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Background and aim: Pancreatic injuries are rare and can occur either without direct penetration to the organ or due to the transmission of blunt force energy to the retroperitoneum. Some studies report an incidence of 0.2% for blunt trauma and 1.1% for penetrating trauma. . The diagnosis of pancreatic injuries is made through clinical examination, laboratory tests, and imaging techniques such as abdominal ultrasound, contrast-enhanced CT scans, ERCP, or MRCP. The main approach in the treatment of pancreatic injuries is surgical, with the choice of procedure depending on the location and severity of the injury.

Case: A 15-year-old male patient, with no known comorbidities or history of medication use, presented to our emergency department with ongoing abdominal pain one week after falling from a bicycle. He did not report any additional injuries. His vital signs were as follows: blood pressure 110/65 mmHg, pulse rate 85 beats/min, temperature 36.6°C. On physical examination, there was a handlebar mark in the epigastric region, and tenderness in the epigastrium was noted. Laboratory results showed WBC:10,240/ μ L, CRP:15 mg/dL, amylase: 1885 IU/L. A contrast-enhanced abdominal CT scan revealed free fluid in the pelvis. The patient was referred to pediatric surgery with a preliminary diagnosis of pancreatic injury and was admitted for further follow-up.

Conclusions: Although pancreatic injuries are relatively rare, they represent a serious concern due to morbidity rates ranging from 45% to 60% and mortality rates between 23.4% and 30.2%. The diagnosis of pancreatic injuries is not straightforward and requires a high index of suspicion. Delayed diagnosis significantly reduces the chance of adequate treatment, thereby increasing morbidity and mortality. Surgical intervention remains the mainstay of treatment for pancreatic injuries, with the approach depending on the location and severity of the injury. Most pancreatic injuries are of a lesser degree, and surgical interventions primarily involve diagnostic procedures and external drainage.

Keywords: blunt trauma, Pancreatic injuries



Ref No: 6798

Pub No: P-111

Pneumomediastinum

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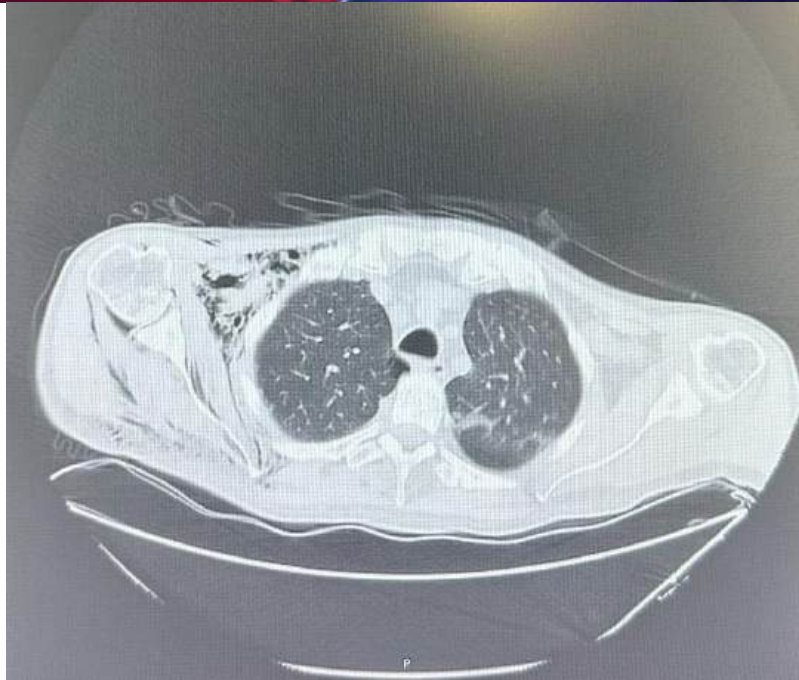
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Background and aim: Pneumomediastinum(PM) is defined as the presence of free air within the mediastinum due to intra and extrathoracic causes. It is classified into spontaneous and secondary PM. Spontaneous PM rarely presents with symptoms and is usually observed in young males. The etiology of secondary PM includes chest trauma, neck/thoracic and retroperitoneal surgeries, esophageal-tracheobronchial perforations, asthma, barotrauma, infections, interstitial lung diseases, and connective tissue disorders.

Case: A 26-year-old male patient presented to the emergency department with complaints of mouth sores, leg rashes, and decreased oral intake. The patient reported having a cough, widespread body aches for the past week, and worsening eating and drinking for the last 3 days. Upon presentation, the patient's general condition was fair to poor, with blood pressure of 98/74 mmHg, pulse rate of 120 bpm, temperature of 37.2°C, oxygen saturation of 95%, blood glucose of 378 mg/dL. The ECG showed sinus rhythm. Physical examination revealed numerous white-pink lesions in the oral cavity and a purulent skin lesion on the elbow of the right upper extremity. There were widespread petechiae and subcutaneous crepitations in the bilateral lower extremities. Bilateral breath sounds were diminished on lung auscultation. Blood tests showed CRP: 52, WBC: 18,500, with other values within normal ranges. CT imaging revealed subcutaneous emphysema extending to the neck, both lower extremities, and the left upper extremity, as well as the thoracoabdominal region. The patient, who had poor self-care, widespread oral candidiasis, and scabies, was considered immunosuppressed. The patient was admitted to the thoracic surgery department for follow-up and treatment of PM.

ct scan of patient



Conclusions: When pathological causes are excluded using diagnostic methods, the condition usually has a good prognosis. If underlying exacerbating factors such as COPD/asthma are present, corticosteroids and bronchodilators are recommended. Tension PM can have a fatal course. Surgical drainage and decompression are applied in the treatment of tension pneumomediastinum.

Keywords: pneumomediastinum



Ref No: 6966

Pub No: P-047

A TALE OF ESCAPE: I TOOK A FEW THINGS WITH ME

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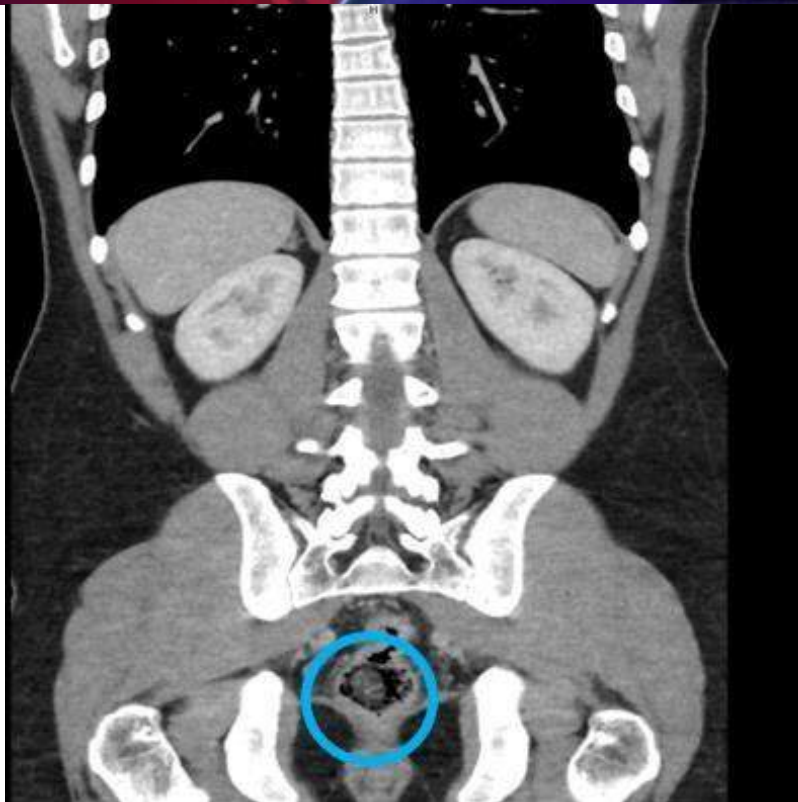
Background and aim: Transporting drugs within the body is a method frequently used in the smuggling of illegal substances. Carriers typically attempt to evade customs inspections or law enforcement by concealing drug packets inside their bodies through ingestion, rectal, or vaginal insertion. Since Body Stuffing often occurs in an unplanned manner, the protective packaging around the drug is usually thin or, in some cases, non-existent, which can lead to drug toxicity if the package ruptures. Patients are often asymptomatic upon admission but may present with complications such as obstruction or perforation. Here, we present two cases of individuals who attempted body stuffing with amphetamine packets.

Case: A 27-year-old male was brought to our emergency department by law enforcement after being arrested for drug trafficking. According to the history taken, the patient had swallowed 80 packets of methamphetamine to hide them before being arrested, and he had passed 29 packets after his arrest. A 25-year-old male, who was apprehended with the first patient, reported swallowing 22 packets of the same substance and passing 21 of them after arrest. Upon presentation, neither patient had any complaints of abdominal pain, nausea, vomiting, agitation, or sweating. On physical examination, both patients were normotensive, had no tachycardia, and their pupils were isocoric. Abdominal examinations were also unremarkable. Imaging revealed numerous foreign objects in the abdomens of both patients. Both patients were discharged after the complete expulsion of all the packets, without developing any symptoms during their hospitalization.

Figure 1: Multiple intestinal packages



Figure 2- Rectal package



Conclusions: In body stuffing cases, the rapid ingestion of drugs poses serious health risks. The strong central nervous system effects of methamphetamine can lead to life-threatening complications at high doses. Early medical intervention and close monitoring are vital in these cases. Surgical intervention should be considered when necessary, and collaboration between healthcare professionals and law enforcement is essential. Additionally, these cases have significant legal and forensic consequences.

Keywords: body stuffing, amphetamine, emergency department



Ref No: 7014

Pub No: P-089

Urinary Retention Caused by Fecal Impaction: A Case of Overlooked Complications in Immobile Patients

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Background and aim: Fecal impaction (FI) is commonly seen in elderly, immobile patients, and those with a history of surgery. Symptoms include abdominal pain, bloating, nausea, vomiting, constipation, and rectal discomfort. In patients with FI, pathologies that may require emergency surgery, such as ileus and perforation, can arise. Here we present a case of urinary retention due to FI.

Case: A 39-year-old male patient was brought to our facility with complaints of constipation for 1 week and being unable to urinate for the past 2 days. The patient had epilepsy, was mentally retarded, had limited mobility, and was care-dependent and used Tegretol. General condition was good, with a blood pressure of 127/88 mmHg, a heart rate of 89 bpm, a temperature of 36°C, and oxygen saturation of 99% on room air. Physical examination revealed a distended abdomen without defense or rebound, and bladder distension was noted (globus positive). Neurological examination was normal, and the rectal examination revealed hardened stool. A Foley catheter was inserted, urine was obtained, and the bladder was gradually emptied. A CT scan of the abdomen revealed fecaloma, preventing urine flow. (Figure 1 and 2) The fecaloma was removed, and symptomatic relief was observed after urine output was restored.

Figure 1

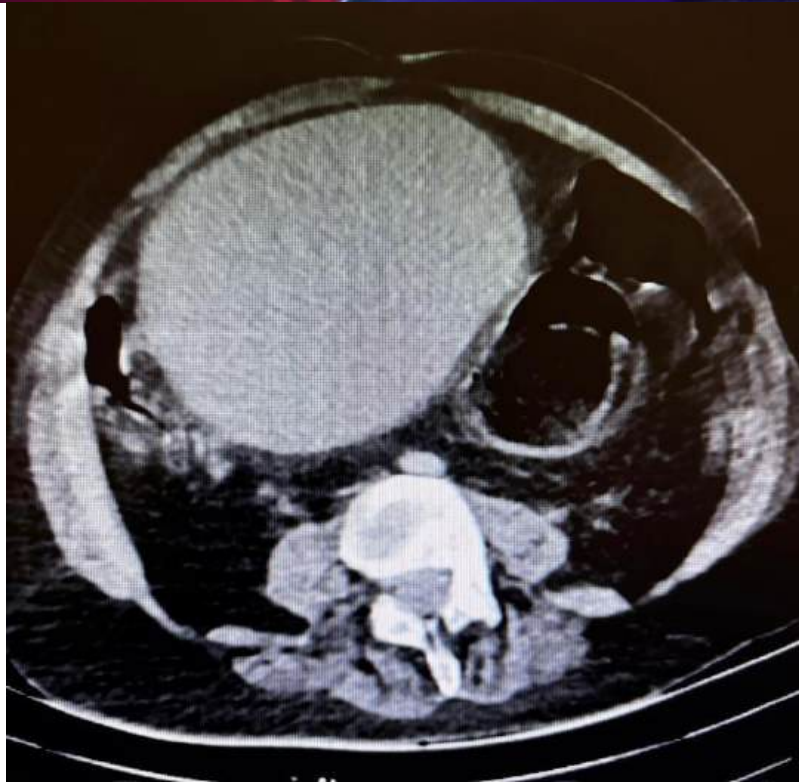
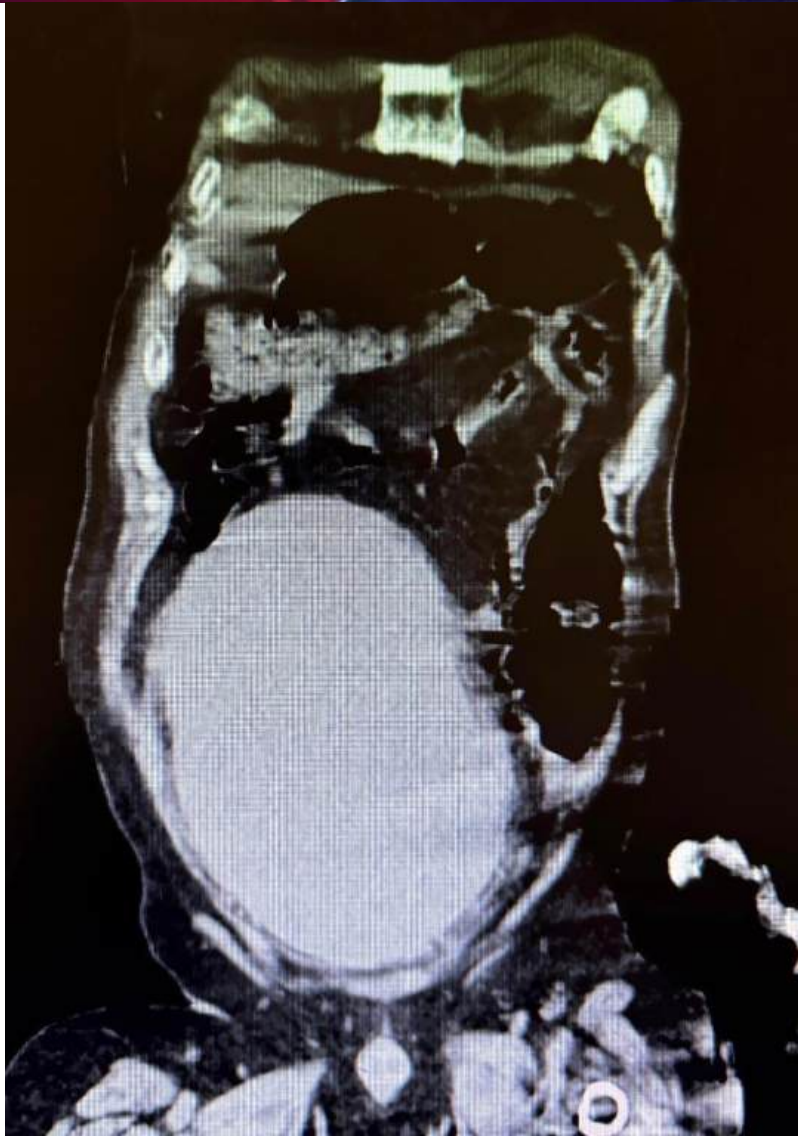


Figure 2



Conclusions: In our patient, immobilization appeared as a predisposing factor, leading to the development of fecaloma. The fecaloma caused pressure on the urinary system, resulting in globus vesicalis, and the patient experienced relief after the fecaloma was removed and the bladder was gradually emptied using a catheter. FI is a condition that shouldn't be neglected, as it's progression can lead to significant morbidity and mortality, such as colon perforation. Especially in elderly and immobile patients, it's important to remember that simply clearing the stool from the rectum is not sufficient, and stool in the colon must also be evacuated through appropriate methods.

Keywords: faecaloma, faecal impaction, constipation, elderly, globus vesicale

Ref No: 7105

Pub No: P-143

Are NOACs Innocent?

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Background and aim: New oral anticoagulants (NOACs) are increasingly used for the treatment and prevention of stroke, pulmonary embolism, and deep vein thrombosis due to their favorable profile, including patient compliance, rapid action, lower risk of intracranial bleeding, and no need for routine lab monitoring. Despite their perceived safety, this case highlights potential bleeding risks.

Case: A 78-year-old male with a history of diabetes, hypertension, and benign prostatic hyperplasia presented to the emergency department with right leg weakness and poor general condition. He had recently started rivaroxaban 20 mg following an ischemic cerebrovascular event. Upon admission, vital signs were: temperature 38°C, BP 90/60 mmHg, SpO2 90%, and pulse 125 bpm. Examination revealed a GCS score of 14 and muscle strength of 4/5 in the right lower extremity, with bilateral rhonchi and no external bleeding. Laboratory results indicated: INR 6.71, Hb 6.5 g/dL, HCT 20.2%, PLT 281,000/mm³, WBC 21,000/mm³, CRP 143 mg/L, creatinine 1.71 mg/dL, and urea 140 mg/dL. Imaging showed pneumonic infiltration on chest CT and hemorrhage in the right iliopsoas muscle on pelvic CT. The patient received one unit of packed red blood cells and one unit of fresh frozen plasma, resulting in Hb 8.2 g/dL, HCT 26%, and INR 3.81. General surgery did not recommend intervention, and he was admitted to the intensive care unit.

CT image of hemorrhage in the iliopsoas



CT image of hemorrhage in the iliopsoas



CT image of hemorrhage in the iliopsoas





Conclusions: Dose adjustments are crucial in patients with renal impairment, as illustrated in this case, to mitigate the risk of rare but serious complications like iliopsoas bleeding. Although NOACs are considered safe regarding bleeding, their use can lead to life-threatening situations. Emergency physicians must be vigilant in adjusting doses, recognizing potential bleeding complications, and anticipating possible bleeding sites.

Keywords: rivaroxaban, iliopsoas bleeding, renal failure



Ref No: 7161
Pub No: P-043

Blurry vision in a patient with hypertensive retinopathy

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Background and aim: Systemic hypertension affects approximately %35-46 of adult people in Turkey¹. Hypertensive retinopathy is a serious complication of hypertension(HT) and is the most common ocular manifestation. Elevated blood pressure disrupts the inner blood-retinal barrier. Acute blood pressure elevation leads to vasoconstriction of retinal blood vessels and may cause optic disk edema. Chronic HT results in microvascular changes such as endothelial damage and necrosis². Our aim in this case report to emphasize the importance of early diagnosis and treatment of hypertensive retinopathy with the use of ultrasound in the emergency department(ED)

Case: A 50-year-old woman presented to the ED with blurry vision and headache for 4 days. The patient was found to be hypertensive, with a blood pressure of 276/150 mmHg, while other vital signs were within normal limits. The patient had a history of HT but had not been adhering to her medication regimen for the past 3 months. She had no other medical, ocular or surgical history. Physical examination revealed bilateral halos, as well as blurry and decreased vision in both eyes, but the general physical examination was otherwise normal. There was no acute pathology in the patient's laboratory results and central imaging. Her evaluation for secondary causes of HT was unremarkable. Bedside ocular ultrasound demonstrated papillary edema. The patient was diagnosed with hypertensive emergency and end-organ damage. Anti-hypertensive treatment was started immediately. Following effective blood pressure management, her visual symptoms improved

Conclusions: Hypertensive retinopathy is a common complication of systemic HT. It may indicate an undiagnosed hypertensive emergency or result from potentially life-threatening secondary causes of HT. Performing an ocular ultrasound in the ED can be instrumental in diagnosing hypertensive retinopathy and facilitating the prompt initiation of appropriate treatment

Keywords: retinopathy, hypertension



Ref No: 7256
Pub No: P-093

When the Air Hits Your Brain

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Background and aim: Pneumocephalus is defined as the presence of air within the cranial cavity and is a rare condition outside of surgical, traumatic, or radiotherapy contexts. Pneumocephalus following meningitis is particularly uncommon, with only a limited number of cases described in the literature. Diagnosis is primarily made using computed tomography (CT), which can detect as little as 0.5 ml of air. We aimed to demonstrate the occurrence of pneumocephalus in a patient who presented to the emergency department with altered consciousness following meningitis.

Case: A 47-year-old patient with no known chronic illnesses or history of trauma presented to the emergency department via ambulance with symptoms of nausea, vomiting, and altered consciousness. On arrival, the patient's vital signs were stable except for a temperature of 38°C. The Glasgow Coma Scale (GCS) score was 14, and the patient exhibited incoherent speech. Laboratory tests showed a CRP level of 262 mg/L and a WBC count of $23.81 \times 10^3/\mu\text{L}$. Cranial and thoracic CT scans were ordered. The cranial CT revealed extensive intracranial air (Figure 1 and 2), leading to a preliminary diagnosis of meningitis and subsequent lumbar puncture (LP). The LP findings included $3951/\text{mm}^3$ leukocytes with 90% polymorphonuclear cells (PNL), confirming the diagnosis of meningitis. The patient was admitted to the infectious diseases department for further management.

Figure 1

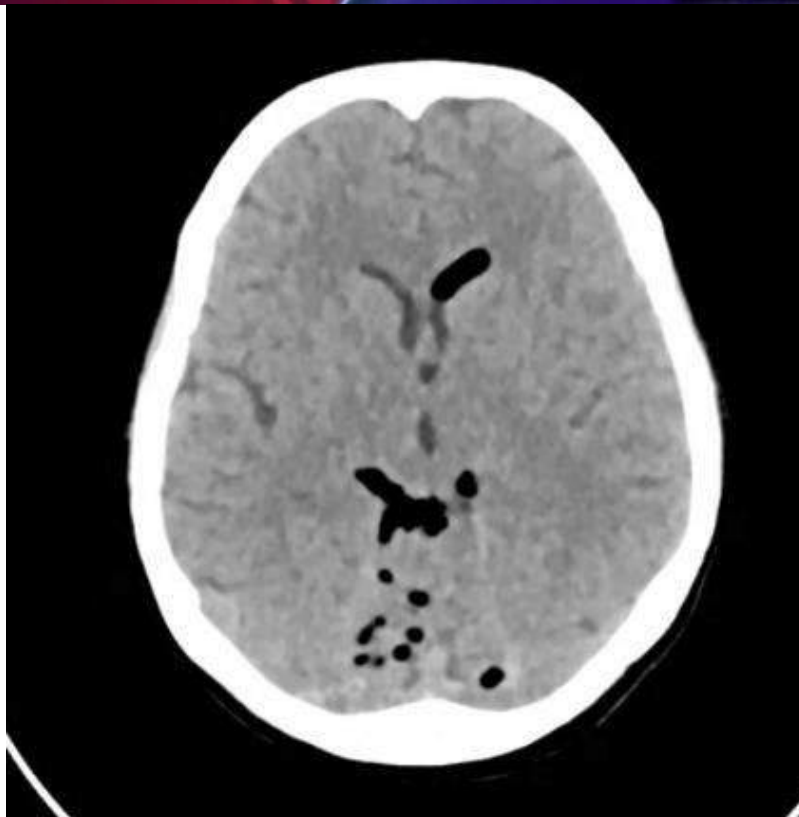


Figure 2



Conclusions: Pneumocephalus can be asymptomatic, but it may also present with symptoms such as altered consciousness, headache, vomiting, and seizures. In rare cases, pneumocephalus can lead to increased intracranial pressure, potentially causing mass effect. The management of pneumocephalus depends on the patient's clinical status, the progression of the pneumocephalus, and the underlying etiology.

Keywords: pneumocephalus, meningitis, infectious diseases, confusion, fever

Ref No: 7296

Pub No: P-064

A Cunning disease from the past:

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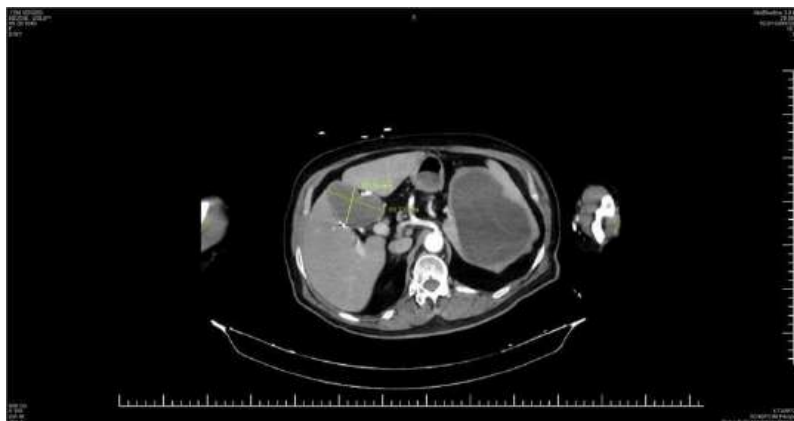
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Background and aim: Hydatid cyst disease is a zoonotic infection. Humans serve as intermediate hosts in the life cycle of the parasite. The disease may be detected incidentally in asymptomatic individuals or present with nonspecific clinical manifestations. Hydatid cysts can occur in various organs and soft tissues; the liver is the most frequently affected organ, followed by the lungs and less commonly in organs such as the spleen, kidneys, bones and pancreas.

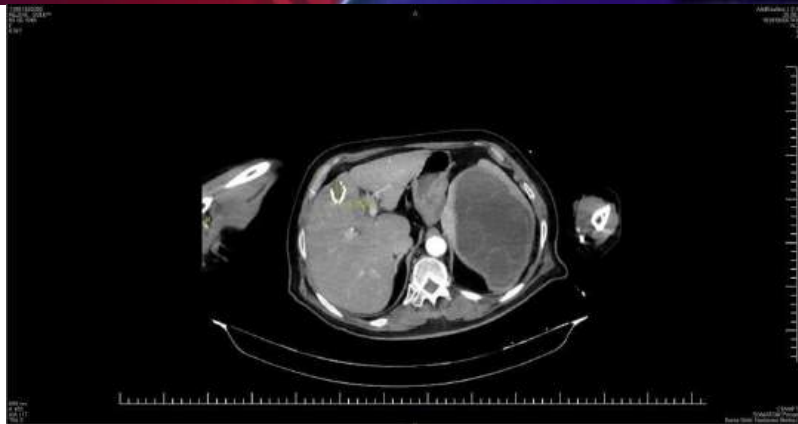
Case: A 76-year-old female presented to the emergency department with complaints of abdominal pain, nausea, vomiting and weight loss. Her vital signs were stable. On physical examination, tenderness in the bilateral upper quadrants of the abdomen, no guarding or rebound tenderness was observed. Other systems examinations are normal. In the patient's history these symptoms had been recurring for the past month despite no definitive diagnosis had been established; however she had been treated with three different antibiotics. Laboratory investigations revealed a C-reactive protein (CRP) of 48.4 mg/dL and urinalysis demonstrated 23 leukocytes with no bacterial growth. Others are normal. Abdominal ultrasonography, contrast-enhanced computed tomography scan of the entire abdomen shown, a 70x48 mm cystic lesion in the right hepatic lobe with calcified walls, type 2 hydatid cyst (A). Additionally, a 28 mm hypodense lesion in the same lobe, with calcifications in the wall, was a type 4 hydatid cyst (B). The spleen was enlarged, measuring 166 mm, and contained a space-occupying lesion measuring 137x93 mm, with an internal detached membrane, a type 3 hydatid cyst (C). The patient was consulted to the general surgery.

Figure A



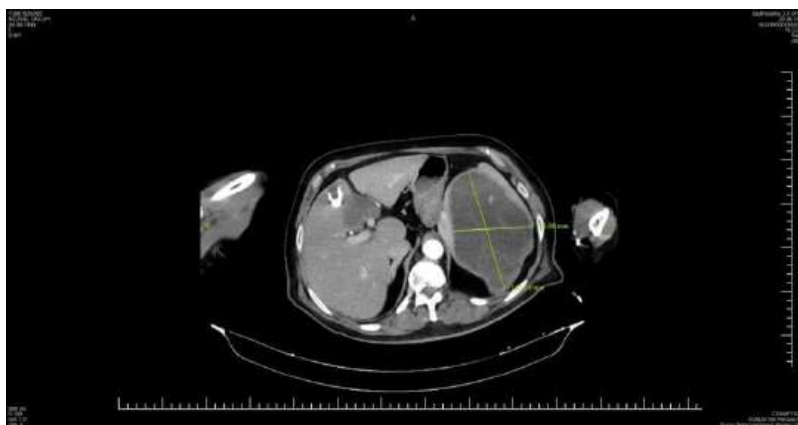
Contrast-enhanced abdominal imaging, axial section belonging to the patient, 70x48 mm cystic lesion in the right hepatic lobe with calcified walls, consistent with a type 2 hydatid cyst, Figure A

Figure B



Contrast-enhanced abdominal imaging, axial section belonging to the patient, a 28 mm hypodense lesion in the right hepatic lobe, with calcifications in the wall, was suggestive of a type 4 hydatid cyst Figure B

Figure C



Contrast-enhanced abdominal imaging, axial section belonging to the patient, a space-occupying lesion measuring 137x93 mm, with an internal detached membrane, suggestive of a type 3 hydatid cyst Figure C

Conclusions: In the present case, three hydatid cysts were identified: two in the liver and a significantly large one in the spleen. Hydatid cyst disease is often asymptomatic; however, it may mimic other pathologies and be easily overlooked during initial evaluation. Common manifestations associated with hepatic involvement include nausea, vomiting, abdominal pain or tenderness, a palpable abdominal mass. Other symptoms may vary depending on the organ involved. In cases presenting with unexplained infection in the emergency setting, hydatid cyst disease should be considered in the differential diagnosis.

Keywords: Hydatid cyst, unexplained infection, abdominal pain



Ref No: 7467

Pub No: P-010

Norwegian scabies

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Background and aim: Scabies is a type of skin disease caused by the mite *Sarcoptes scabiei* von hominis. Scabies, which causes itching and rash, increases especially in autumn and winter months and is highly contagious. In case of delay in diagnosis and treatment, it causes skin rashes, wounds and different infections. Norwegian scabies, also known as crusted scabies, occurs in babies, elderly or sick people with weak immune systems. Thick crusts containing scabies mite eggs may appear on the person's skin surface. A person with crusted scabies disease has approximately 2 million scabies mites or eggs in their body. Therefore, they have a high probability of transmitting the disease to other people. In this presentation, we aimed to introduce a case of scabies that we rarely encounter in the emergency department.

Case: A 54-year-old female patient applied to the emergency department due to fatigue and widespread itching on her skin. Except for hypotension (85/56 mmHg), the patient's vital signs were within normal limits. The patient received hemodialysis three days a week and had no additional comorbidities. The patient stated that the skin lesions appeared about a month ago and gradually increased. During physical examination, widespread skin lesions with thick crusts and occasionally bleeding areas were observed, mostly on the front of the patient's body (Figure 1). No significant findings were detected in the patient's routine laboratory parameters. With these findings, the patient was hospitalized with a preliminary diagnosis of Norwegian crusted scabies. This diagnosis was later confirmed as a result of a biopsy of the skin lesions.

Figure 1



Norwegian scabies

Conclusions: Norwegian crusted scabies is a rare skin disease that negatively affects the comfort of life. It is important for emergency physicians to be familiar with typical skin lesions and to diagnose the disease before it becomes complicated.

Keywords: Norwegian scabies, Crusted scabies, Emergency department



Ref No: 7635

Pub No: P-078

The diagnostic dilemma: abdominal pain as an unusual symptom of spontaneous pneumothorax

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Background and aim: Spontaneous pneumothorax is an abnormal lung condition characterized by the accumulation of gas in the pleural space between the lung and the chest wall (1). Patients may present with symptoms such as tachycardia, chest pain, and dyspnea. Diagnosis is based on clinical suspicion and can be confirmed by imaging (1). Chest radiography characteristically shows the displacement of the visceral pleural line with a space devoid of lung markings in between (1). This case is presented to highlight that patients with a diagnosis of pneumothorax may also present with atypical symptoms such as abdominal pain.

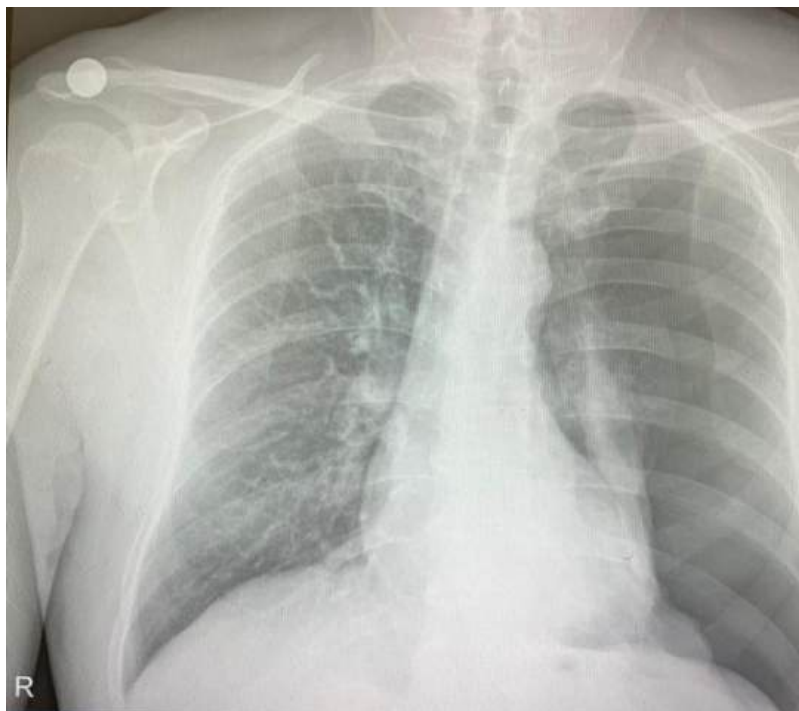
Case: A 54-year-old male presented to the emergency department with a 2-day history of abdominal pain following cold exposure. On admission, his vital signs were within normal limits. The patient was ambulatory and abdominal examination was unremarkable. Bowel sounds were present, and the patient reported normal bowel movements and flatus. His past medical history was negative for chronic illnesses. Based on the presenting symptoms, an upright abdominal radiograph was obtained. The abdominal X-ray (Figure 1) revealed an absence of visible lung parenchyma on the left side, raising suspicion for pneumothorax. A posteroanterior chest radiograph was subsequently ordered for confirmation (Figure 2), which demonstrated a complete left-sided pneumothorax. An emergent tube thoracostomy was performed under local anesthesia (Figure 3). Following the procedure, the patient was transferred to a tertiary care center with a thoracic surgery department for further management.

Figure 1



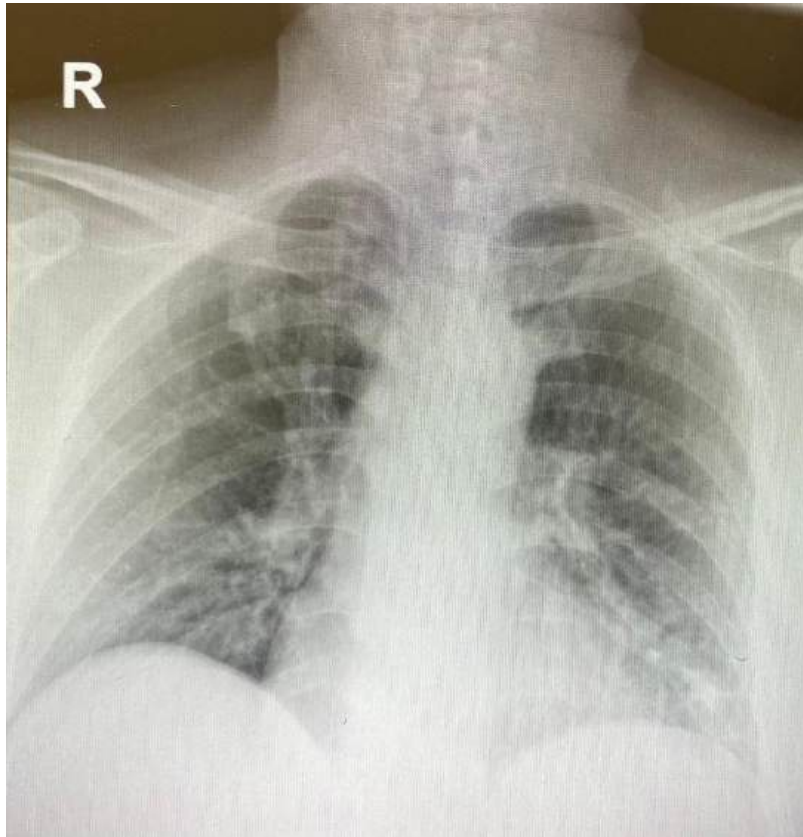
An absence of visible lung parenchyma on the left side of the abdominal X-ray.

Figure 2



A complete left-sided pneumothorax on the X-ray.

Figure 3



Post-thoracostomy lung imaging on X-ray.

Conclusions: Pneumothorax is a common emergency condition that typically presents as pleuritic chest pain and dyspnea (2). However, some pneumothorax patients may develop abdominal pain (2). Pneumothorax, especially the slowly progressing type, can present as epigastric pain (2). Therefore, pneumothorax should be considered in the differential diagnosis of patients presenting with abdominal pain as a symptom.

Keywords: Pneumothorax, abdominal pain, Emergency service

Ref No: 7661

Pub No: P-141

A SIGNIFICANT CAUSE OF WIDESPREAD BODY SWELLING: SUPERIOR VENA CAVA SYNDROME

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Background and aim: Superior vena cava syndrome (SVCS) occurs due to compression or obstruction of the SVC, leading to impaired venous return. While this syndrome is most commonly associated with malignancies, there has been an increase in benign causes, such as enlarged lymph nodes, cystic lesions, or mediastinal masses, in recent times. In this article, we present a patient with widespread body edema and was diagnosed with SVCS.

Case: A 64-year-old male presented with widespread swelling lasting 10 days and worsening dyspnea for two days. The patient had no significant past medical history. Physical examination revealed no signs of thrombosis (PTE: -/-), and abdominal breathing was not observed. There were no signs of redness or flushing on the body, and no edema of the uvula was observed. A chest CT showed a mass-like consolidation in the apical segment of the right upper lung and bilateral pleural effusion measuring up to 3cm (Figure-1). A contrast-enhanced neck CT revealed a mass lesion measuring 68x96mm, surrounding mediastinal soft tissues with spiculated borders and invading vascular structures. The mass was observed to invade the superior vena cava and fill its lumen (Figure-2). The patient was diagnosed with SVCS, which did not require immediate intervention. He was discharged with urgent recommendations for biopsy to evaluate for small cell lung malignancy.

Figure 1. A mass-like consolidation in the apical segment of the right upper lung

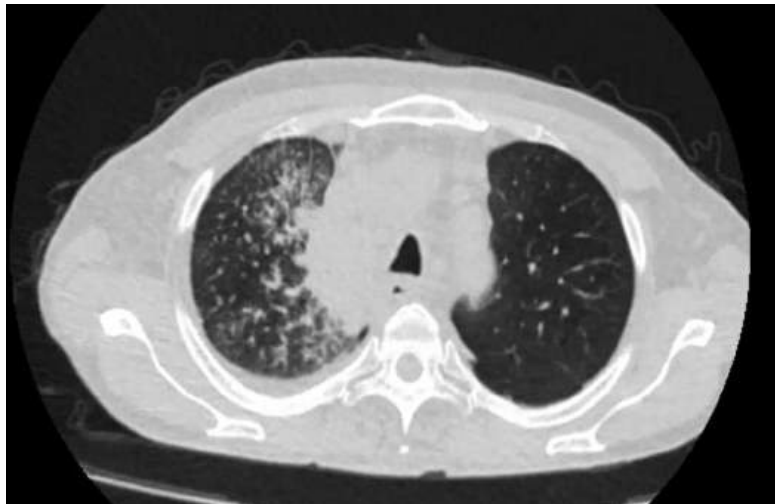




Figure 2. The mass was observed to invade the superior vena cava



Conclusions: The SVC, formed by the merging of the left and right brachiocephalic veins, is crucial for returning blood from head, neck, upper extremities, and torso to the heart. Common signs of SVCS include facial-neck swelling, upper extremity edema, dyspnea, cough, and dilated collateral chest veins. In patients with body swelling, consider that, alongside heart and kidney failure and allergic reactions, SVCS may also be present. In patients with upper body swelling, SVCS can be diagnosed through detailed history, physical examination, and clinical suspicion.

Keywords: Superior vena cava syndrome, SVCS, malignancy, mass lesion, impaired venous return



Ref No: 7676

Pub No: P-148

NOT CONVERSION: SEIZURE DUE TO CEREBRAL TUMOR IN A YOUNG PATIENT

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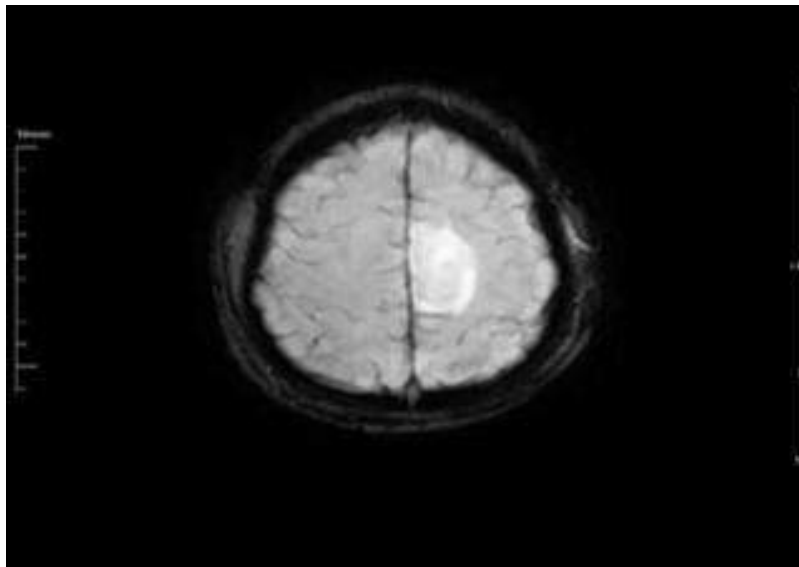
Background and aim: Focal tonic-clonic seizures arise from epileptic activity in a specific region of the brain. They initially present with symptoms such as contractions in a specific muscle group, sensory abnormalities, or cognitive changes and loss of consciousness can develop as the seizure spreads. Diagnosis of focal seizures relies on the patient's history, physical examination findings, and imaging techniques, with determining the underlying causes being of great importance.

Case: A 36-year-old male with no known medical history was brought to the ED by 112 services due to fall and subsequent contractions in the right upper-lower extremities. While the contractions were occurring, the patient had his eyes open and was looking straight ahead, with no urinary or fecal incontinence reported. Loss of consciousness could not be clearly assessed, and contractions had lasted for 20 minutes. GCS:15 with normal speech and comprehension. Focal seizures in right upper extremities continued, and muscle strength in right lower extremity was 3/5. Blood gas analysis showed acidosis: pH:7.29, pCO₂:33mmHg, BE:-9.5, HCO₃:16.5mEq/L, SaO₂:73%, lactate:11.5mmol/L. Other laboratory parameters included Na:139 mEq/L, K:4mEq/L, glucose:165mg/dL, hematocrit:14%, and hemoglobin:13.9g/dL. He received 2x5mg Diazepam and 3x500mg Levetiracetam intravenously, with no significant change in contractions. Cranial CT revealed a 23 mm hypodense lesion in the left parietal lobe, and diffusion MRI showed a well-defined lesion with minimal diffusion restriction in the left parieto-frontal area. The patient was referred to Neurosurgery for further evaluation and treatment.

Figure 1. Brain CT reveals 23 mm hypodense lesion in the left parietal lobe



Figure 2. Diffusion MRI reveals well-defined mass lesion in the left parieto-frontal area



Conclusions: Approximately 1-2% of ED visits are due to seizures, with a quarter of these being first seizures. In patients presenting to the ED with first seizure, it is essential to rule out intracranial masses. The persistence of seizures, particularly those lasting longer than 20minutes, is considered a medical emergency that requires immediate intervention. This case emphasizes the necessity of ruling out possible causes in patients presenting with their first seizure.

Keywords: cerebral tumor, seizure, focal tonic-clonic, brain CT, first seizure



Ref No: 7684

Pub No: P-022

Case Report: Is Confusion Following Alcohol Consumption Truly Attributable to Alcohol?

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Background and aim: Hyponatremia is a common electrolyte disorder that can lead to significant neurological symptoms such as seizures and confusion. The effects of electrolyte imbalances can be exacerbated by predisposing factors like alcohol consumption. This case report highlights the importance of comprehensive evaluation in the emergency department for patients presenting with atypical symptoms, by presenting a patient who developed severe hyponatremia and subsequently experienced seizures during follow-up.

Case: A 53-year-old female presented with chest pain after alcohol consumption. She had irregular metformin use. Initial exam showed mild confusion (GCS 14) with normal neurological findings. ECG revealed nonspecific ST-segment depressions, and vitals were stable. While being monitored, she had a generalized tonic-clonic seizure, treated with IV midazolam. Blood tests showed severe hyponatremia (Na: 111 mmol/L) and metabolic acidosis. She was treated with hypertonic saline. Further evaluation, including CT and MRI, ruled out CNS pathology. Despite elevated troponin (110 ng/L), no ischemia was found. The patient's confusion improved with treatment, and she was discharged in good condition after ICU care.

Conclusions: Many patients present to the emergency department with various complaints after alcohol consumption, and their physical exams and histories are often unreliable. This case highlights the need to evaluate both alcohol-related effects and acute coronary syndrome in patients presenting with chest pain post-alcohol consumption. The patient's seizure shortly after admission emphasizes the need to be prepared for any clinical scenario in emergency medicine. In this case, hyponatremia, along with signs of pneumonia and cardiac involvement, initially suggested substance use, but this was not confirmed in the history. Early diagnosis and treatment of hyponatremia are crucial to prevent neurological complications, as demonstrated by the timely intervention in this case. Electrolyte imbalances are common in emergency department visits but often go unnoticed without symptoms. Comprehensive evaluation of patients with atypical symptoms is essential for reducing mortality and morbidity.

Keywords: Hyponatremia, Seizure, Emergency Medicine



Ref No: 7881

Pub No: P-144

BLEEDING INSTEAD OF THROMBOSIS: HIDDEN DANGERS OF APS PATIENTS

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Background and aim: Antiphospholipid syndrome (APS) is an autoimmune disorder characterized by thrombosis and pregnancy complications (1). It manifests as either primary APS or secondary to systemic lupus erythematosus or other autoimmune diseases. Patient prognosis correlates with the presenting clinical manifestations.

Case: A 49-year-old female patient was brought to the emergency department by ambulance with complaints of dyspnea, nausea and impaired oral intake. Upon arrival, her Glasgow Coma Scale (GCS) was 15, oxygen saturation (SpO₂) was 97%, pulse rate was 120 beats/minute, and body temperature was 36.2°C. Blood pressure was unobtainable. Medical history revealed a stroke two years prior, a diagnosis of APS, and current warfarin therapy. During initial assessment in the resuscitation room, widespread ecchymoses were observed on the patient's right arm, though there were no reports of active bleeding. Initial laboratory results showed hemoglobin at 2.8 g/L, white blood cell count of 56,000, platelet count of 49,000, pH of 7.21, and lactate level of 11.5. Coagulation parameters were unmeasurable. Following Foley catheter insertion, massive hematuria was noted. Given the severe anemia, urgent transfusion of 3 units of packed red blood cells and 1 unit of fresh frozen plasma was initiated. Additionally, 5 units of COFACT (prothrombin complex concentrate) were administered intravenously. As the patient's dyspnea progressively worsened and oxygen saturation decreased, endotracheal intubation was performed. Hemodynamic stability was achieved with steroid administration. The patient was transferred to the intensive care unit for further management.

Conclusions: Hemorrhage is rarely observed in APS and is often attributed to factors such as thrombocytopenia, coagulation factor inhibitors, hypoprothrombinemia, and uremia (2). Bleeding in APS can occur due to acquired or congenital factor inhibitors. Antiphospholipid antibodies may cause bleeding diathesis by inhibiting the activation of Factor IX, Factor X, and prothrombin. In patients with APS, although rare, we must consider bleeding in the differential diagnosis.

Keywords: Antiphospholipid syndrome (APS), bleeding, thrombosis, autoimmune disorder, hemorrhage

Ref No: 8168

Pub No: P-108

Rare Case of Isolated Prostate Injury from Penetrating Trauma

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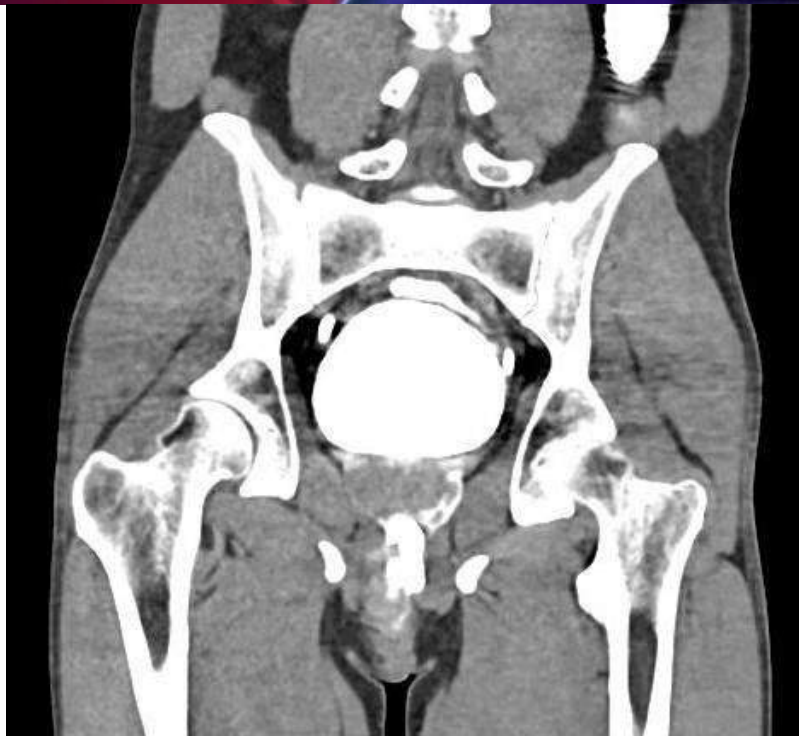
Background and aim: Genitourinary trauma affects up to one in ten trauma patients and can be life-threatening if not managed properly. Understanding the injury mechanism helps determine its nature and severity. Urological trauma is categorized as blunt or penetrating. Blunt trauma is either direct, where an organ impacts an object, or indirect, caused by deceleration. Penetrating trauma varies by velocity, with stab wounds causing localized damage, while high-velocity injuries, affect a broader area. Here we present a case of penetrating urological trauma, that only affected the prostate, which is rare and can easily be missed.

Case: 30-year-old male patient presented to the emergency department, with a stab wound in the right gluteus. He was initially alert and hemodynamically stable with a blood pressure of 130/70 mmHg and a heart rate of 130 bpm, but during initial workup, he became hypotensive, and intravenous fluid and blood products were administered with an appropriate hemodynamic response. Physical exam revealed an active bleeding area on the right perianal area and blood at the urethral meatus. CT of the abdomen and pelvis revealed free intraabdominal fluid, and suggested intra/extraperitoneal bladder injury as well as a prostate injury. (Figure 1 and 2) The penile urethra was intact, prostate injury was stabilised by a catheter. Multidisciplinary discussion between vascular surgery, general surgery and urology determined that the patient required no surgical exploration, and he was transferred to ICU.

Figure 1



Figure 2



Conclusions: In cases of penetrating trauma, isolated injury to the prostate is rare but requires careful assessment. Prompt recognition and evaluation of such injuries are crucial, as they may present with subtle symptoms but can lead to significant complications if missed. Examination, imaging and urological consultation is needed to determine the extent of damage and guide management accurately. Early identification and treatment of prostate injuries prevent complications, like infection, bleeding, or long-term urological dysfunction.

Keywords: prostate injury, stab wound, genitourinary trauma, emergency department



Ref No: 8362

Pub No: P-011

An occult pelvic injury detected on secondary evaluation

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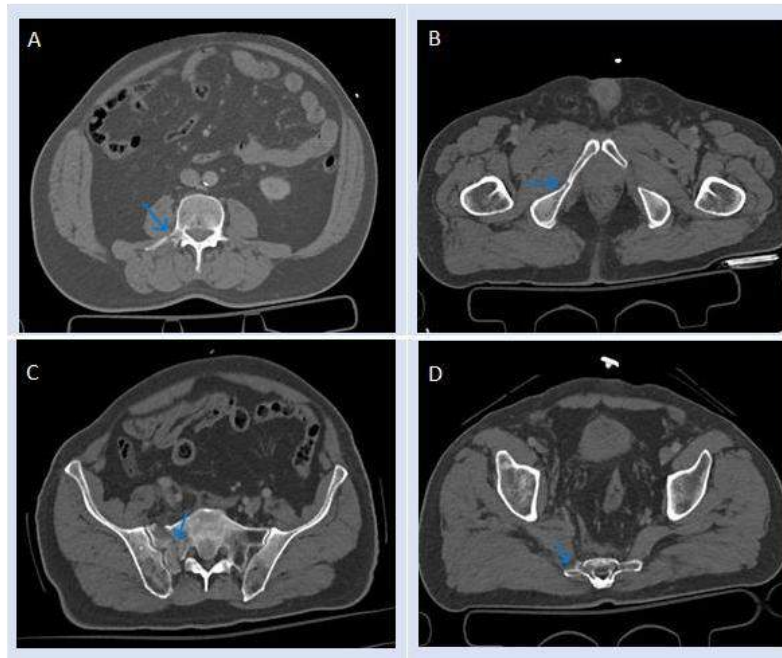
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Background and aim: The pelvis is a relatively protected and multifunctional area of the body. Pelvic fractures are generally seen as a result of high-energy traumas such as motor vehicle accidents and falls from high distance. Therefore, pelvic traumas may be accompanied by additional serious injuries. In this case report, we aimed to present an acute pelvic injury noticed during secondary evaluation.

Case: A 52-year-old male patient was admitted to the emergency department due to falling from a height of approximately 3 meters. The patient stated that he lost his balance and fell on his right hip. The patient's vital signs were within normal limits. He had tenderness in his lumbar region and lateral side of his right hip. There were no significant findings in other system examinations and laboratory tests. Fractures were detected in the right transverse processes of the L1-L5 vertebrae and the right inferior pubic ramus on computed tomography (Figure 1 / A and B). On detailed examination, there was no sensory or motor deficit in lower extremities, but rectal sphincter tone was found to be low. Consistent with this finding, fecal incontinence was observed after rectal examination. When the patient's computed tomography was re-examined, it was determined that there was a nondisplaced sacral fracture due to lateral pelvic compression (Figure 1 / C and D). Thereupon, the patient was urgently taken to the operating room and surgical fixation was performed on the separated sacrum. The patient had an uncomplicated post-operative period and was discharged with full recovery.

Figure 1



Computed tomography images of the pelvis. L3 vertebra lateral process fracture (A), right inferior pubic ramus fracture (B), complete sacral fracture due to lateral pelvic compression (C and D).

Conclusions: Patients with pelvic trauma should be evaluated in detail with repeated physical examinations and all clinical findings observed during follow-up should be taken into account. In these cases, a detailed neurological examination, including checking rectal sphincter tone, may be a guide to detect occult injuries.

Keywords: Pelvic trauma, Sacral fracture, Computed tomography

Ref No: 8414
Pub No: P-067

AN OVERDOSE STORY: LITHIUM INTOXCICATION

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Background and aim: Lithium is a narrow therapeutic index drug with a toxicity potential. In the majority of patients, toxicity may occur during lithium maintenance therapy. In chronic use, renal side effects such as natriuresis and nephrogenic diabetes insipidus may occur, while gastrointestinal, cardiovascular and neurological symptoms may be observed in acute toxicity. The aim of treatment is to remove the toxin from the body. There is no antidote. High amounts of sodium and fluid used in treatment increase lithium excretion. Hemodialysis is an option for patients with severe symptoms, especially neurological symptoms.

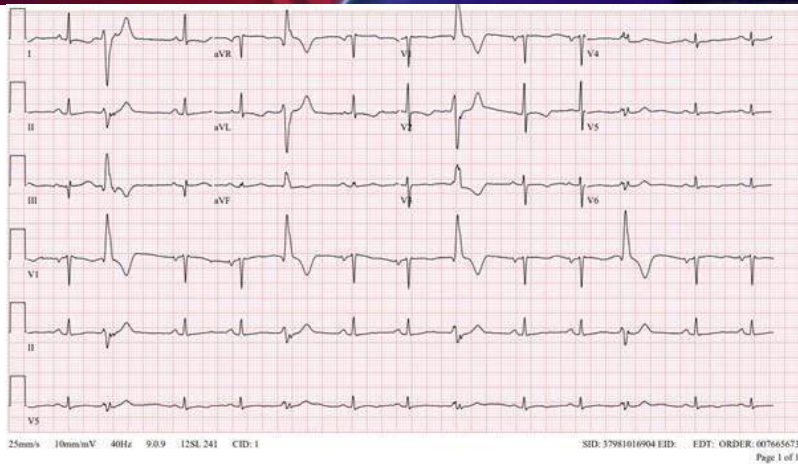
Case: A 66-year-old woman was admitted to our department with confusion, non-speech, non-responsiveness and sleepiness lasting all day. On admission, her consciousness was confused, blood pressure was 130/85 mmHg, pulse was 87/min, temperature was 36°C and respiration was 13/min. Blood tests revealed WBC 30.43 103/μl, hemoglobin 10.9 g/dl, platelet 79 103/μl, creatinine 1.95 mg/dl, AST 79 IU/l, ALT 102 U/l, LDH 2020 IU/l. Brain CT and MRI was normal. The patient had a diagnosis of body perception disorder for 30 years and a history of 2 hospitalizations. While she was taking lithium and olanzapine when she had similar complaints, lithium treatment stopped and olanzapine continued. However, when her family insisted that lithium was better, lithium was prescribed again. Afterwards, the family started to give more lithium because lithium was good for her. When the lithium value of 1.88 mmol/L, the patient interned to the psychiatry service as lithium intoxication.

Figure 1



First ECG in administration

Figure 2



Patients ECG after 10 hours

Conclusions: In patients receiving maintenance lithium therapy, 70-90% develop intoxication at some stage of the treatment process. The most common renal side effect of lithium treatment is nephrogenic diabetes insipidus caused by dysfunction of aquaporins in the collecting ducts. There is no clinical correlation with serum lithium concentration; treatment is guided by clinical improvement. Lithium should be primarily focused on restoration of intravascular volume in the treatment of intoxication. In case of intoxication, it should be kept in mind that clinical symptoms will guide the treatment.

Keywords: Lithium intoxication, body perception disorder



Ref No: 8495

Pub No: P-156

Euglycemic Diabetic Ketoacidosis a Case Report

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Background and aim: Diabetic ketoacidosis (DKA) consists of hyperglycemia (>250 mg/dL), anion gap, increased metabolic acidosis and increased plasma ketones. In euglycemic DKA (EDKA), unlike DKA, blood glucose is <250 mg/dL. Therefore, the diagnosis of EDKA may be missed. EDKA is a clinical triad that includes metabolic acidosis with increased anion gap (AAA), ketonemia or ketonuria, and normal blood glucose levels <200 mg/dL. EDKA is a diagnosis of exclusion. Other clinical conditions causing AAA metabolic acidosis should be excluded. It should be kept in mind that the patient's euglycemia may be due to recent insulin treatment. SGLT2 inhibitors may also directly cause EDKA.

Case: A 42-year-old male patient with a known diagnosis of type2 diabetes mellitus presented to the emergency department with complaints of nausea and decreased oral intake. His medications included sglt2 inhibitor. On arrival, his vitals were stable and his blood glucose level was 150 mg/dl measured from the fingertip. On examination, he was conscious, oriented and coherent with a GCS of 15. Neurologic examination was normal, abdomen was smooth and there was no rebound or defense. Hemogram, biochemistry and blood gas tests were ordered from the patient who had suspicious acetone odor on his breath. The patient had elevated acute phase reactants. The patient's blood gas results were pH: 7.080, pCO₂:21.6BE:-24.6HCO₃:6.1lactate:1.5 and the patient was admitted to the intensive care unit with the diagnosis of EDKA.

Conclusions: It should be kept in mind that stressor factors such as infection and trauma may lead to ketoacidosis in diabetic patients. While taking anamnesis from these patients, it is necessary to question the medications they use with their classes. Blood gas analysis, which is a rapid and cost-effective test, has an important place in the evaluation of diabetic patients, since evaluation with fingerstick blood glucose alone may cause this diagnosis to be missed, especially in outpatients.

Keywords: SGLT2 Inhibitors, Diabetic Ketoacidosis, Euglycemia

Ref No: 8759

Pub No: P-005

Zygoma Fracture and Facial Paralysis Approach

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Background and aim: Approach to Facial Paralysis in Patients with Zygoma Fracture Facial nerve paralysis is a relatively common condition that can be encountered in emergency departments. It can manifest in either central or peripheral forms. Facial paralysis arising from temporal bone fractures can often be successfully managed with medical treatment in the clinical setting. Prompt diagnosis and timely initiation of therapy are crucial in achieving favorable outcomes.

Case: Case: A 7-year-old male patient presented to the emergency department with complaints of numbness in his face. Upon history taking, it was revealed that he developed paralysis on the left side of his face one day after being hit in the right side of his face with a ball. Vital Signs: Temperature: 36.5°C (97.7°F) Blood pressure: 100/70 mmHg Heart rate: 80 beats per minute Oxygen saturation: 97% Respiratory rate: 25 breaths per minute Mental Status: Alert and oriented Glasgow Coma Scale (GCS) score: 15 Physical Examination: No significant edema or ecchymosis was noted on the face. Bilateral tympanic membranes were normal. There was no tragal tenderness. Parotid gland palpation was normal. Grade 3-4 peripheral facial paralysis was present on the left side. Minimal tenderness was present on the right zygoma. No steppage gait was observed. No diplopia or limitation of gaze was present. Direct and indirect light reflexes were present bilaterally in both eyes. Computed Tomography (CT) Scan: A CT scan of the head for central imaging revealed a hypodense track suggestive of a non-displaced fracture (fx) of the outer table at the level of the right frontal bone zygomatic process.

zygoma fracture



Conclusions: The patient was started on oral prednisone therapy. On the 5th day of treatment, complete resolution of the facial asymmetry was observed.

Keywords: Zygoma fracture, facial nerve injury, facial paralysis



Ref No: 8951

Pub No: P-075

ADHERENCE TO STERILITY: SPINAL ABSCESS AS A RARE COMPLICATION OF INTRATHECAL OZONE THERAPY

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Background and aim: A spinal epidural abscess is a purulent infection that can compress the spinal cord, leading to nerve damage or death[1]. Symptoms include back pain, fever, and neurologic deficits. Early diagnosis is challenging but crucial, requiring prompt evaluation. Detailed history, physical examination, and confirmation with CT or MRI are essential for diagnosis[2].

Case: A 56 year old female patient was admitted to emergency department due to severe widespread muscle pain, impaired mobility, and challenges with urination and defecation. She was lethargic, GCS:14(E3M6V5), pulse 100beats/min, blood pressure 97/65mmHg, saturation was 93%. Physical neurological examination revealed paraplegia. The muscle strength of lower limbs were proximal:0/5, distal:1/5. Sensory examination showed hypoesthesia from T6. Abdominal distension due to bladder distension was relieved by catheterization. Fifteen days earlier, the patient had received intrathecal ozone therapy for lumbalgia. CT revealed air in the lumbosacral region (Figure-1), and MRI identified an epidural abscess extending from L3 (Figure-2). Patient was transferred to the ICU. Emergency drainage was planned, and broad-spectrum IV antibiotics were initiated. Post-operative septic shock developed, and the patient died on the 16thday.

Conclusions: Classic triad includes fever, back pain, and neurologic deficit. The neurologic changes can be variable according to the affected level of the spinal cord[3] In our case, the history of invasive procedures and the presence of the triad were the most significant clues suggesting a spinal epidural abscess. The treatment involves emergency surgical drainage and broad-spectrum antibiotics. Despite early treatment, the mortality and morbidity rates remain high. In 11 to 75% of cases, patients receive a misdiagnosis, leading to delays or inappropriate treatment. Due to these delays and suboptimal management, 4 to 22% of patients experience irreversible paralysis, and approximately 5% die from sepsis or related causes. Early diagnosis and treatment play a crucial role in improving prognosis and survival.

Keywords: ozone therapy, intrathecal injection, emergency drainage, spinal abscess, sterility

References



Ref No: 9069

Pub No: P-033

Evaluation of Adrenal Insufficiency and Crisis

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Background and aim: Adrenal insufficiency is a clinical condition that results in insufficient hormone production of the adrenal glands. The main symptom of adrenal insufficiency is hypotension and shock due to cardiovascular failure. Additionally, these patients may present with a wide range of non-specific symptoms of varying severity, including nausea, vomiting, abdominal pain, loss of appetite, weakness, fatigue, drowsiness, fever, confusion, and coma. Due to nonspecific complaints in adrenal insufficiency, the differential diagnosis spectrum is wide and the diagnosis may be delayed and a life-threatening adrenal insufficiency picture may develop. Our aim is to draw attention to this case that.

Case: 52-years-old male patient was brought to the hospital by ambulance with complaints of confusion , abdominal pain, vomiting, and constipation. His known diseases are FMF. His regular medication is deltacortil 5 mg. Vital signs show hypotension (79/40mmHg), generalized weakness is seen on examination, but there is no localized loss of strength, and abdominal examination does not reveal any remarkable findings. Laboratory tests show hypoglycemia (53), hyponatremia (117 meq/l) and new renal dysfunction. Despite 3L intravenous fluid therapy, hypotension and hypoglycemia continues. In the detailed history, it is learned that the patient has not been able to take his prescribed medication for the last 2 days. Samples are taken for laboratory tests (cortisol, ACTH) and following hydrocortisone 100mg IV treatment, improvement in blood pressure is observed. The patient is admitted to the internal medicine ward with the diagnosis of acute adrenal insufficiency.

Conclusions: Adrenal insufficiency, a serious condition t hat requires hospitalization, can be overlooked due to its non-specific symptoms, especially if a detailed medical history is not taken. Early diagnosis and treatment in these cases can be life-saving

Keywords: adrenal crisis, hypoglycemia, hyponatremia, hypotension

Ref No: 9118

Pub No: P-081

A rare cause of abdominal pain: Retroperitoneal hemorrhage after subclavian catheter placement and dialysis

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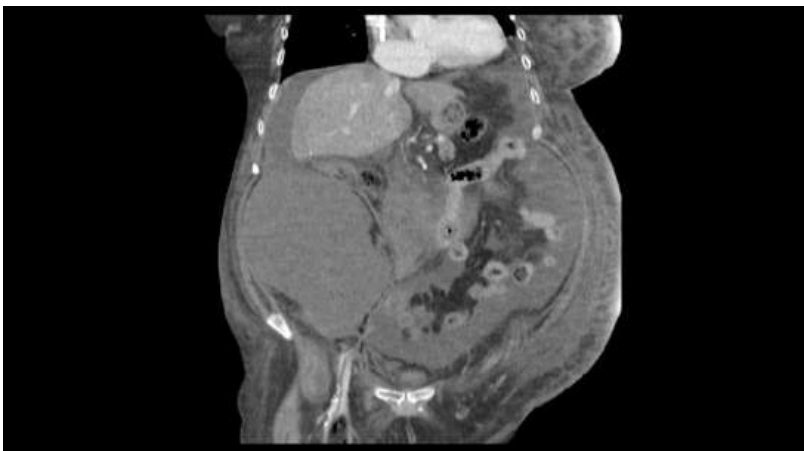
Background and aim: Spontaneous retroperitoneal hematoma (SRH) is a rare clinical entity that results from accumulation of blood within the retroperitoneum, without trauma or iatrogenic manipulation. The pathogenesis of SRH is not entirely clear. Risk factors of SRH formation include anticoagulation or antiplatelet therapy, female sex, advanced age, chronic medical conditions such as hypertension, cirrhosis, and renal diseases. In this case we aim to point how quickly this entity can occur and how quickly deteriorate.

Case: 80 year old female was brought to the emergency department in poor clinical condition and confusion. On arrival she had hypotension, toxic appearance. She had HT, DM, AF, CKD. She had recently been admitted to haemodialysis programme twice a week for advanced CKD. For dialysis an indwelling catheter was placed in right subclavian vein. After one night observation in hospital the patient was discharged without complications. Following hours after receiving dialysis first time and disposition she began to deteriorate with confusion and poor clinical condition. She was complaining from abdominal pain. On examination there were tenderness in all quadrants without guarding and rebound. She also had slight abdominal distension. Patient was seeming pale, and sweating cold. Her blood works showed metabolic acidosis, hyperlactatemia, profound anemia and HCO₃ depletion. Resuscitation with fluid and blood components was started immediately. Simultaneously for diagnosing the cause haemorrhagic shock, CT angiography was planned. It was found that the patient had a massive retroperitoneal haemorrhage. There were no signs of vascular damage and contrast extravasation. The patient's condition was associated with heparine which was implemented at the dialysis procedure. And that has caused the patient to bleed leaking into the third space. The patient was transferred to the ICU for continuation of treatment.

Catheter at right ventricle



Massive retroperitoneal hemorrhage



Intact Vessels



Bloodworks of patient

Bloodworks of patient			
	18.7.24	21.7.24	21.7.24
Hb	10.2	5.5	7.1
Hct	32.6	18.6	23.9
Plt	103	97	109



Urea	151.6	49.7	
Cre	3.26	1.47	
Lac		10.3	14.4
HCO ₃		19.1	12.5
pH		7.28	6.94

The patient has a massive blood loss at amount of 4.7 g/dL--Hyperlactatemia--And still worsening after resuscitative measures

Conclusions: It is important to remember that spontan bleedings with or without vascular involvement may cause abdominal pain. Classical findings may not be present. Patient's clinical condition can deteriorate rapidly. Clinician must keep these pathologies in mind for differential diagnosis. Especially at the presence of chronic comorbidities and anticoagulation

Keywords: anticoagulation, retroperitoneal hematoma, subclavian catheter, hemorrhagic shock, spontaneous

Ref No: 9242

Pub No: P-070

A rare cause of abdominal pain: renal infarction

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Background and aim: Renal infarction is a rare ischemic event that is related to atheroembolic or thromboembolic disease. The incidence of renal infarction has been estimated 0.004%– 0.007%. The most common underlying causes are aortic thromboembolism, trauma, coagulation disorders, cardiac problems, and malignancy. Abdominal or flank pain is the most common clinical manifestation. Diagnosis should be considered in patients with sudden abdominal or flank pain, decreased kidney function, elevated LDH, hematuria, or proteinuria, in the absence of other reasons. The risk is higher in individuals with cardiac disease (especially atrial fibrillation) or those over 60 years of age. Early diagnosis is crucial for timely intervention, which may include intravascular thrombolysis, systemic thrombolysis, anticoagulation, or antiplatelet therapy.

Case: A 48-year-old male patient presented to our emergency department with abdominal pain that started one day before. He had no history of chronic illnesses or regular medication use. On physical examination there was tenderness in the left upper quadrant. The vital signs were as follows: blood pressure 153/82 mmHg, pulse 74 beats/ minute, temperature 36°C, and saturation 98%. Laboratory tests showed: WBC 12.18; HGB 15.6; creatinine 1.12; CRP 15.6. Urinalysis results were: protein 1+, erythrocytes 31, leukocytes 1, and bacteria negative. A contrast-enhanced abdominal CT scan revealed patchy non-contrast areas in the left kidney that interpreted as renal infarction. The patient was admitted to the internal medicine department.

renal infarction



Conclusions: Abdominal pain is one of the most common reasons for emergency department visits. While common diagnoses such as acute appendicitis, cholecystitis, and renal colic are often considered, less common causes like renal infarction should be considered especially in patients with risk factors. As in our case, advanced imaging should be considered to diagnose rarer causes in case of persistent pain in young patients without any risk factors



Keywords: renal infarction, abdominal pain

Ref No: 9267

Pub No: P-077

Acute infarction presenting with atypical symptoms

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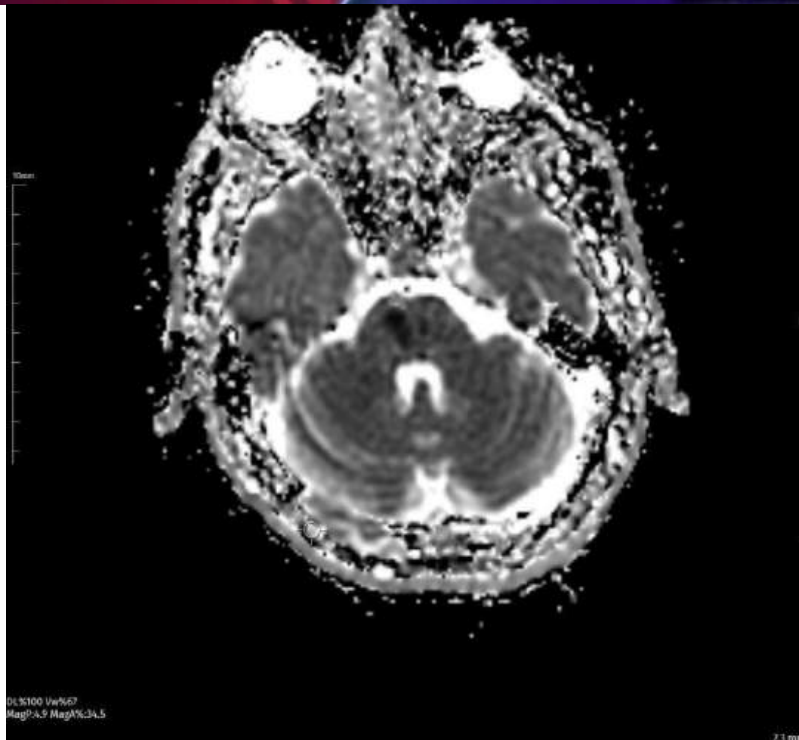
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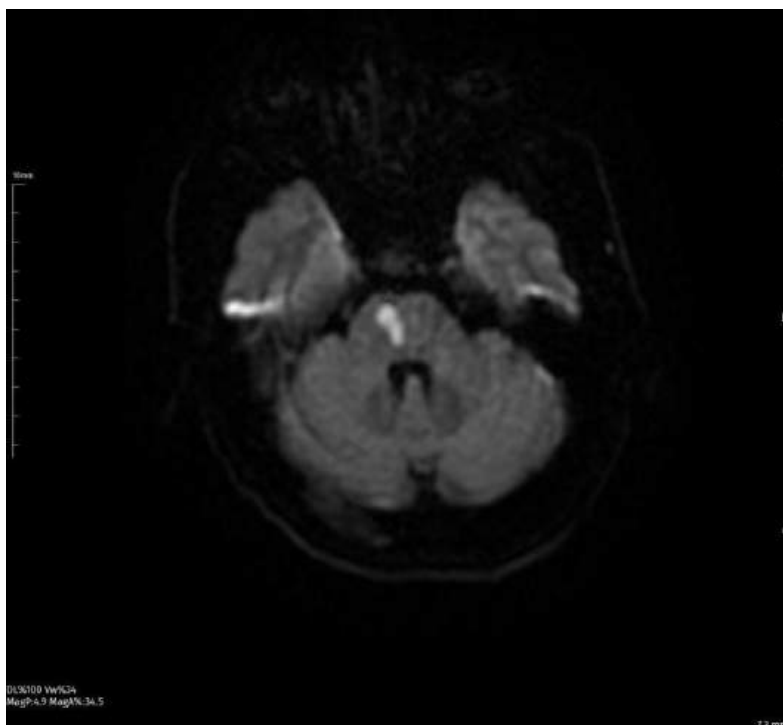
Background and aim: Patients may present with atypical symptoms. Differential diagnoses need to be considered in the emergency department. As in this case, life-threatening conditions such as Acute Coronary Syndrome and Aortic Dissection, which require rapid diagnosis, should be ruled out first.

Case: A 53-year-old male patient presented to the emergency department with complaints of weakness, numbness in the left arm, chest pain, and nausea that had been ongoing for 2 days. The patient had a known diagnosis of hypertension. Vital signs were normal except for hypertension (180/100 mmHg). On physical examination, the Glasgow Coma Scale was 15, with clear consciousness, oriented, and cooperative. Neurological examination was normal. There were no lateralizing signs. Lung auscultation was normal. There was no abdominal guarding or rebound tenderness. Peripheral pulses were palpable. The EKG showed normal sinus rhythm. There was no acute ischemic pathology. Laboratory tests revealed: Platelet: $600 \times 10^3/\mu\text{L}$, D-dimer: 1.03 mg/L, Troponin: 21.3 ng/L. A CT angiography was performed to rule out aortic dissection. Simultaneously, troponin levels were monitored. No pathology was detected. As numbness in the left arm persisted, a brain CT and diffusion MRI were performed. An acute infarct was detected in the right side of the pons. The patient was referred to the Neurology department.

Diffusion MRI of the pons infarction showing ADC sequence.



Diffusion MRI of the pons infarction showing DWI sequence.





Conclusions: POSTERIOR INFARCT The areas supplied by the vertebral and basilar arteries include the brainstem, cerebellum, inferior temporal lobes, occipital lobes, and thalamus. Symptoms can include dizziness, ataxia, bilateral weakness, respiratory disturbances, and changes in heart rate and blood pressure. Most commonly observed symptoms: Dizziness , unilateral weakness , dysarthria , ataxia, headache , nausea and vomiting .REFERENCES: 1. go steven, worman daniel j. Tintinalli's emergency medicine: A comprehensive study guide 2013-1128

Keywords: pons, Acute infarction

Ref No: 9318

Pub No: P-003

Zygoma Fracture and Facial Paralysis Approach

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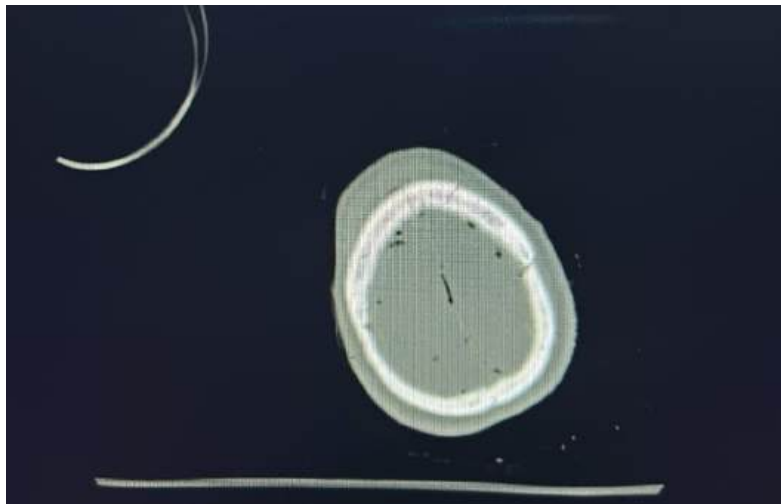
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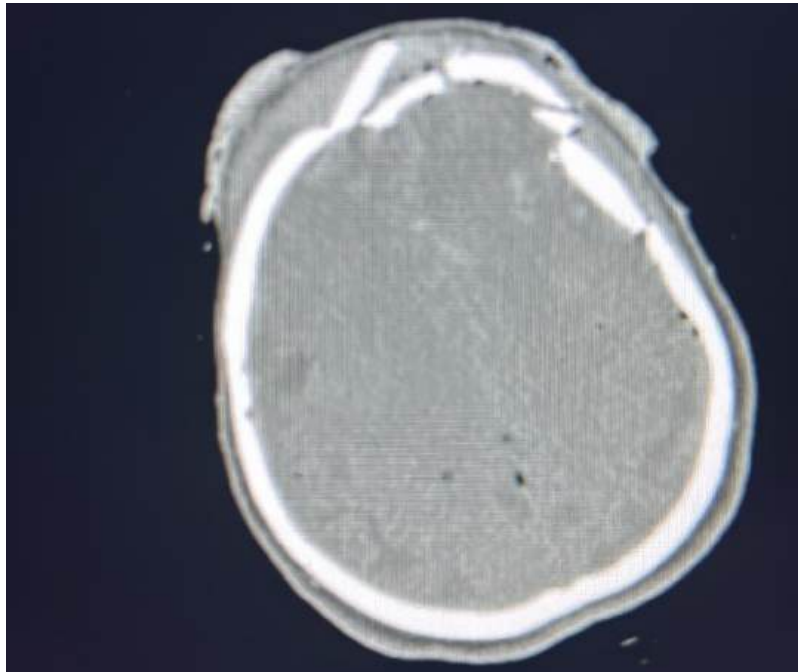
Background and aim: Emergency approach to gunshot wound to the head Gunshot wounds are a common occurrence in emergency departments. The severity of the situation is heightened when vital organs are involved. In such cases, the emergency team is expected to intervene promptly, conduct a comprehensive evaluation of the patient, perform a thorough examination, alert the relevant departments in a race against time, and ultimately keep the patient alive.

Case: A 52-year-old female patient was brought to the emergency department by ambulance with a gunshot wound to the head. Information obtained from her family members suggests that the incident was a suicide attempt, although the definitive conclusion will be determined by the legal process. Initial Patient Status: GCS: 11 Bilateral light reflexes: ++//+++ Consciousness: Confused, opens eyes to verbal stimuli Pain avoidance reflex: Present Vital signs: Blood pressure: 100/80 mmHg Pulse: 67 beats/minute Respiratory rate: 28 breaths/minute Temperature: 36.7°C SpO₂: 85% Intervention: The patient was intubated and stabilized. Consultation with the relevant department was requested. Physical Examination: Left temporal region: 0.5 cm diameter, star-shaped wound with irregular edges, actively bleeding Right temporal region: 2 cm diameter, irregular, fragmented, actively bleeding wound Left upper eyelid: 1 x 2 cm area of swelling and bruising No other wounds, scars, incisions, scratches, or dermabrasion were observed. Extensive fragmented displaced fracture lines were observed in the bilateral frontal bones. These fractures extended to the bilateral superior orbital walls. Parenchymal contusion areas and parenchymal hematoma areas were present, indicating brain contusions and bleeding within the brain tissue. Additionally subdural hematoma at the level of the falx cerebri, multiple bone fragments in the bilateral frontal regions, pneumocephalus foci in the vicinity of the tentorium cerebelli were observed.

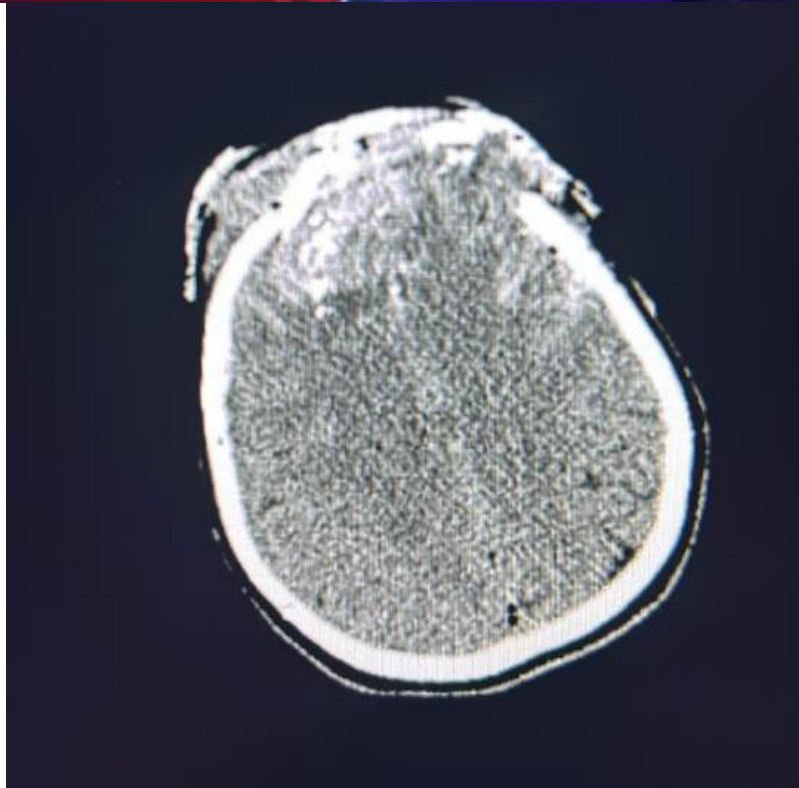
pneumocephalus



multiple bone fractures



subarachnoidal hemorrhage



Conclusions: The patient was admitted to the neurosurgery intensive care unit (ICU). The neurosurgery team did not consider immediate surgical intervention. The patient is currently being monitored in the ICU with mechanical ventilation.

Keywords: gunshot wound, subarachnoidal hemorrhage



Ref No: 9428

Pub No: P-074

VERTIGO or VR-TİGO

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Background and aim: The rise of Virtual Reality (VR) glasses has significantly impacted our daily lives, but their health effects are not fully understood. Used in meetings, presentations, and gaming, VR creates a virtual environment with 3D images. While potentially beneficial for treating vertigo, close screen proximity may cause issues. This paper presents a case of persistent dizziness following VR glasses use.

Case: A 27-year-old male with no prior health issues or medication use presented with dizziness after using VR glasses. He experienced tinnitus, dizziness, and fatigue 30 minutes after one hour of VR use. The patient's vital signs were as follows: temperature 36.1°C, blood pressure 124/77 mmHg, heart rate 77 beats per minute, and oxygen saturation 99%. The patient exhibited horizontal nystagmus during the physical examination. Initial tests including ECG, CT, MRI, and lab results were normal. Treatment with isotonic fluid, dimenhydrinate, and ondansetron provided slight relief, but symptoms persisted. An otolaryngology consultation was requested. The Epley maneuver led to significant improvement.

Conclusions: VR glasses hold promise as a potential treatment for vertigo, yet they are often associated with headaches and dizziness, hindering widespread use. This has been identified as a potential barrier to the widespread adoption. Considering the potential adverse effects, it is important to account for the duration of use. This dizziness, known as visually induced motion sickness (VIMS), arises from discordant visual and vestibular data streams. A study of 14 VIMS patients identified these discordances in EEGs as a major contributing factor. Irregular data flow and reduced signal intensity from vestibular processing were also observed. As research expands, it is anticipated that this symptom will be more clearly defined. It is expected that this technology will play an increasingly prominent role in modern life, especially in the context of vertigo.

Keywords: virtual reality, VR glasses, visually induced motion sickness, VIMS, Epley maneuver



Ref No: 9469

Pub No:

Nausea, Dangerous Than You Think?

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Alper Gorkem Cimen / Gaziosmanpasa Training and Research Hospital

Background

and

aim:

A 64-year-old male patient with no significant history presents to the emergency department with only nausea and flu-like symptoms. He describes no pain in the body. Review of system includes one time vomiting before hospital presentation but no anorexia, no diarrhea, no constipation. Vital Signs T 36,8 C, BP 130/65, HR 95, OS %98 in room air Physical Exam General: Alert and oriented, looking pale GI: Relax no costovertebral angle tenderness Laboratory studies CBC WBC 11.700 HGB 13,8 PLT 195.000 BMP Creatinin 15mg/dl urea 400 CRP 40

Case: Admitted for searching etiology of nausea and giving symptomatic treatment. Blood tests performed. Blood tests showed elevated creatinin levels as it was 15A CT scan without contrast ordered. CT showed right kidney was atrophic. 3-4 stones, measuring 13mm, are observed in the renal pelvis of the right kidney and proximally at the right ureterovesical junction. In the left kidney, 3-4 cortical cysts are observed, the largest measuring 3 cm in diameter. Urology and internal medicine consultations were conducted to investigate kidney failure. Urology consultation notes said it was considered that the right kidney was not a newly developed event, and no ectasia was observed in the left kidney and ureter. A post-renal cause not considered for the patient with acute renal failure. A dialysis catheter was inserted in the emergency department, and the patient was admitted to the internal medicine service for dialysis and to investigate pre-renal causes. After 14 days a left ureterorenoscopy and laparoscopic nephrectomy were performed, and the patient was diagnosed with polycystic kidney disease.

Basic Metabolic Panel

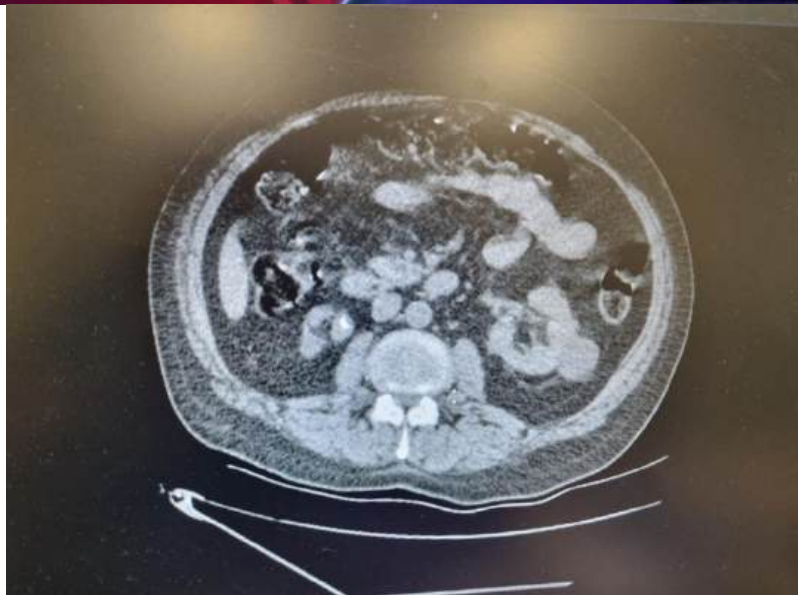
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Alanin aminotransferaz (ALT)	12.54	U/L	• 0 - 46
AMİLAZ	408.06	U/L	↑ 28 - 100
APTT	30.9	sn	• 21 - 35
Aspartat transaminaz (AST)	6.21	U/L	• 0 - 36
CRP (turbidimetrik)	40.1	mg/L	↑ 0 - 5
D. BİLİRUBİN	0.07	mg/dL	↓ 0.1 - 0.4
eGFR	3	mL/dk/1.7	•
GLUKOZ	135.14	mg/dL	↑ 70 - 115
INR	1.13	sec	• 0.8 - 1.2
İ.BİLİRUBİN	0.13	mg/dL	• 0 - 0.8
KALSİYUM	7.07	mg/dL	↓ 8.8 - 10.6
Kan üre azotu (BUN)	187.33	mg/dL	↑ 8 - 23
KLORÜR	112	mmol/L	↑ 99 - 110
KREATİNİN	15.49	mg/dL	↑↑ 0.7 - 1.2
LİPAZ	92.8	U/L	↑ 0 - 60
POTASYUM	5.14	mmol/L	• 3.5 - 5.3
PT%	87	%	• 70 - 130
PT / INR testi	13.3	sec	• 10.5 - 14.5
SODYUM	142	mmol/L	• 137 - 147
TOTAL BİLİRUBİN	0.20	mg/dL	↓ 0.3 - 1.1
TROPONIN I	31.5	ng/L	• 0 - 47
ÜRE	400.89	mg/dL	↑ 17 - 43

1 20:45:34

Basic Metabolic Panel

Ct scan



Ct scan shows right kidney is atrophic and has stones in renal pelvis, there are cortical cysts in the left kidney

Conclusions:

Chronic kidney disease (CKD) is characterized by the presence of kidney damage or an estimated glomerular filtration rate (eGFR) of less than 60 mL/min/1.73 m² persisting for 3 months or more. CKD involves a progressive loss of kidney function often leading to the need for renal replacement therapy, such as dialysis or transplantation. Early CKD stages are asymptomatic, and symptoms manifest in stages 4 or 5. Some common symptoms and signs at these stages of CKD include: Nausea, vomiting, loss of appetite, fatigue and weakness, muscle cramps, oliguria. Physical examination is often not helpful, but patients may demonstrate the following symptoms: Skin pigmentation, scratch marks from pruritus, muscle twitches. The KDOQI guidelines recommend screening high-risk populations, which include individuals with hypertension, diabetes mellitus, and those aged 65 or older. This screening should involve urinalysis, measurement of urine ACR, serum creatinine, and estimation of GFR, preferably using the CKD Epidemiology Collaboration (CKD-EPI) equation. Many people with chronic kidney disease have symptoms because it does not usually cause problems until it reaches an advanced stage. Physical examination is often not helpful so that physicians must rely on high clinical suspicion, laboratory studies and imaging to diagnose. It is important to conduct public awareness campaigns about the common symptoms of kidney diseases such as urinary complaints, edema, fatigue, nausea etc.

Keywords: chronic kidney disease, Polycystic kidney disease, nausea



Ref No: 9513

Pub No: P-009

A Case of Miliary Tuberculosis with Multiple Extrapulmonary Tissue Involvement

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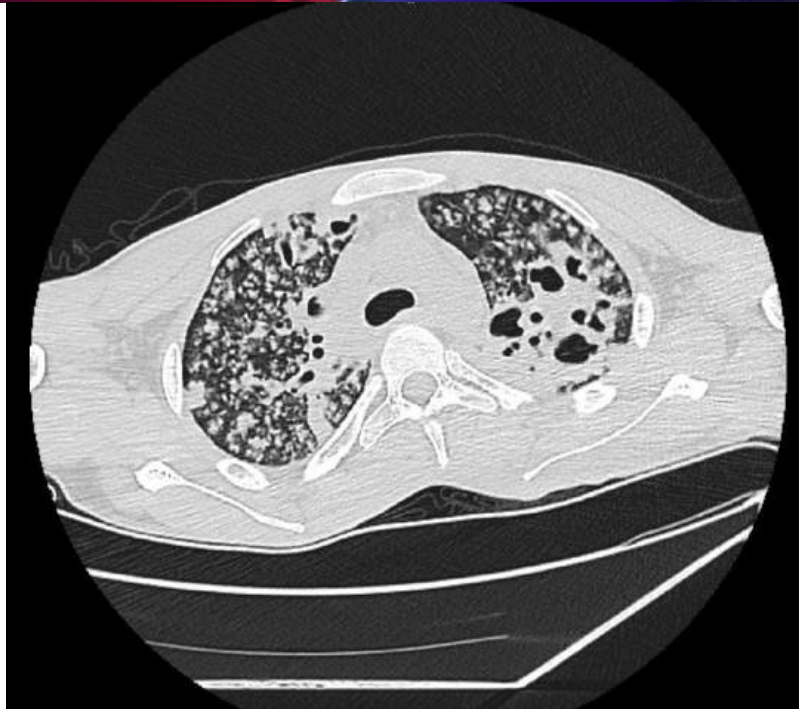
¹Department of Emergency Medicine, University of Health Sciences Istanbul Gaziosmanpaşa Training and Research Hospital

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Background and aim: Clinical symptoms of Miliary tuberculosis (mTB) are variable and nonspecific, with atypical presentations often delaying diagnosis (1). Imaging methods are effective in showing system involvement (2). We aim to draw attention to the subject by presenting demonstrative images of a mTB case presented with altered consciousness.

Case: A 22-year-old foreign national male patient with no known medical history was brought to the ED. The patient had complaints of weakness, cough, and back pain for about a month, with complete loss of communication in the last week. On arrival, he was somnolent with a Glasgow Coma Score (GCS) of 10 (E2M5V3), SpO₂: 95% with nasal O₂ support, respiratory rate: 30/min, coarse breath sounds on auscultation, blood pressure 125/70 mmHg, pulse: 85 beats/min. Blood tests showed WBC: 12,500/μL, CRP: 150 mg/L. Computed Tomography (CT) scans revealed: A soft tissue lesion causing bone destruction in the L3 vertebra corpus, psoas abscess, multiple nodules in both lungs, and multiple hypodense lesions in the liver parenchyma, the largest measuring 33 mm. Cranial imaging showed several hyperintense lesions at the left insular cortex level without corresponding apparent diffusion coefficient (ADC) (Figures 1-4). These findings were primarily considered consistent with mTB. Ceftriaxone 2x2 gr intravenous therapy was initiated. The patient was monitored in the ED for about a day, with improving general condition and GCS reaching 15. The patient was then transferred to the Infectious Diseases clinic.

Figure 1



Atelectatic ground-glass opacities and cavitary lesions in both lung parenchyma.

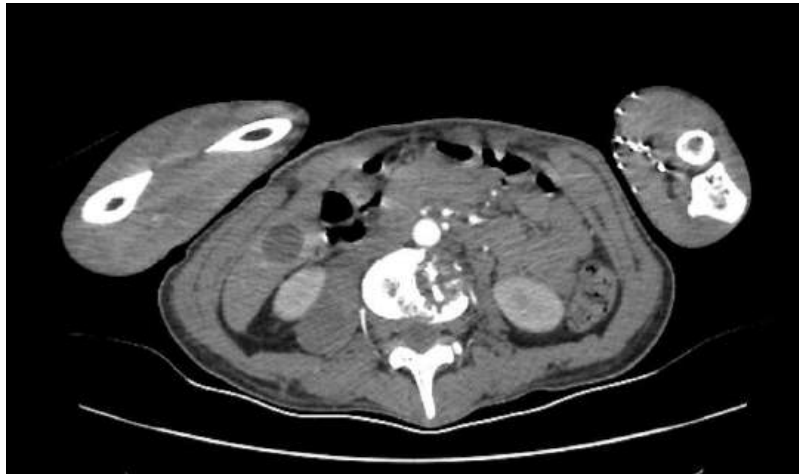
Figure 2



Soft tissue lesion thought to cause bone destruction in the left lateral section of the L3 vertebral body.



Figure 3



Hypodense lesions measuring up to 33 mm in size in the liver parenchyma and hypodense areas within both iliopsoas muscles.

Conclusions: mTB constitutes less than 2% of all tuberculosis cases and 20% of all extrapulmonary tuberculosis cases among immunocompetent adults (1). While the classic finding in thoracic CT imaging is nodular lesions smaller than 2 mm, miliary lesions in the liver and spleen may appear as confluent or discrete hypodense lesions, sometimes with peripheral rim enhancement (3). Magnetic Resonance imaging provides diagnostic benefits in patients with suspected cranial or spinal involvement (2-3).

Keywords: Miliary tuberculosis, Extrapulmonary tuberculosis, Imaging

Ref No: 9571

Pub No: P-098

Recurrent Infections and Uncontrolled Diabetes: A Case of Emphysematous Pyelonephritis with Candida Involvement

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Background and aim: Emphysematous pyelonephritis (EPN) is a rare and life-threatening infection of the kidney, characterized by gas formation in the renal parenchyma. It typically affects individuals with poorly controlled diabetes and those with urogenital anatomical abnormalities. The condition develops due to microbial fermentation of glucose, which produces gases such as carbon dioxide and hydrogen. This case report highlights the importance of diagnosing EPN in elderly diabetic patients with recurrent urinary tract infections (UTIs) and anatomical anomalies. The critical role of computed tomography (CT) in confirming the diagnosis is emphasized.

Case: A 53-year-old female presented to the emergency department with nausea, vomiting, and reduced oral intake. She had a history of chronic diabetes mellitus and irregular use of her prescribed medications, leading to frequent high blood glucose levels and multiple hospital visits. Eight months prior, she underwent bladder Botox surgery for vaginal prolapse and had a history of recurrent UTIs. On arrival, she complained of general fatigue, painful urination, fever, and flank pain, suggestive of a severe UTI. Her vital signs were stable: body temperature was 38°C, heart rate was 123 beats per minute, oxygen saturation was 98%, and blood pressure was 110/80 mmHg. Mucosal dryness and oral candidiasis were noted. Laboratory results showed elevated C-reactive protein (CRP) at 240 mg/L, creatinine at 3.65 mg/dL, urea at 234 mg/dL, and glucose at 435 mg/dL. A urinary ultrasound showed pelvic dilation and grade 3 hydronephrosis in both kidneys. CT confirmed gas in the renal parenchyma, leading to a diagnosis of EPN.

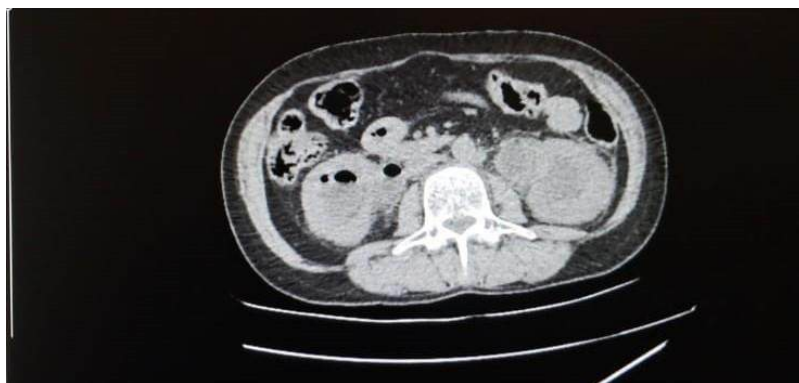
GAS



GAS 2



GAS3



Conclusions: Recurrent UTIs, uncontrolled diabetes, and anatomical abnormalities like vaginal prolapse and vesicoureteral reflux (VUR) significantly increase the risk of EPN, especially in elderly patients. Fungi such as Candida may also contribute to EPN in rare cases. Early diagnosis through CT and aggressive treatment are critical for reducing morbidity and mortality.

Keywords: Emphysematous Pyelonephritis Diabetes Mellitus Urinary Tract Infection Candida

Ref No: 9664
Pub No: P-124

APPROACH TO LIVER ABSCESES

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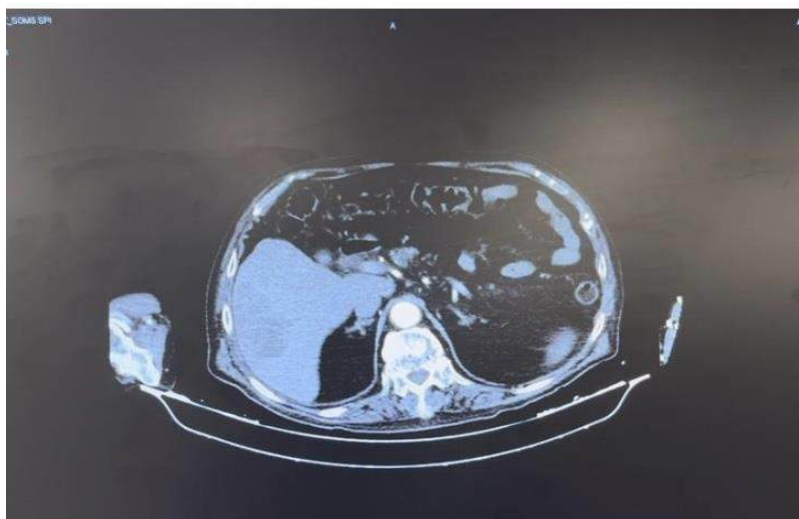
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Background and aim: Liver abscess is a rare disease with high mortality (6-31%), but its mortality has decreased significantly in recent years with the use of broad-spectrum antibiotics, advances in imaging methods and improved quality of intensive care services. The incidence is reported to be 5-13 per 100,000. It is usually single and localized in the right lobe. The most common clinical findings are fever, nausea and pain in the right hypochondrial region. Imaging is of great importance in diagnosis. While the sensitivity of USG is 85-90%, the sensitivity of BATIN CT is close to 100%. Treatment is appropriate antibiotic use and abscess drainage

Case: A patient with known hypertension, type 2 diabetes mellitus and sequelae of svo presented to us with complaints of right upper quadrant pain, chills, weakness, anorexia, nausea and closure of oral intake for the last three days which started 2 weeks ago. Abdominal examination revealed right upper quadrant defense and rebound. Vital Signs: Arterial blood pressure 110/80 mmHg, pulse 80/min, temperature: 36.5°C, spO2 98 Laboratory values of the tests taken: wbc 40,88 ^3/μL neutrophil dominated hb:14.1 g/dL, crp 407.1 mg/L, ksh:120 mg/dL, urea 96 mg/dL, cre 1.96 mg/dL Last:125 IU/L, alt:128 U/L, ldh:560 U/L, alp:196 U/L, ggt:101, total bill:3.45 mg/dL, direct bill:2.14, mg/dL amylase:26 IU/L, lipase:11 IU/L Contrast-enhanced abdominal CT scan shows a 5 cm mass lesion abscess in the right lobe of the liver (Figures 1 and 2). After consultation with the relevant specialty, she is admitted to the general surgery ward for observation and abscess drainage.

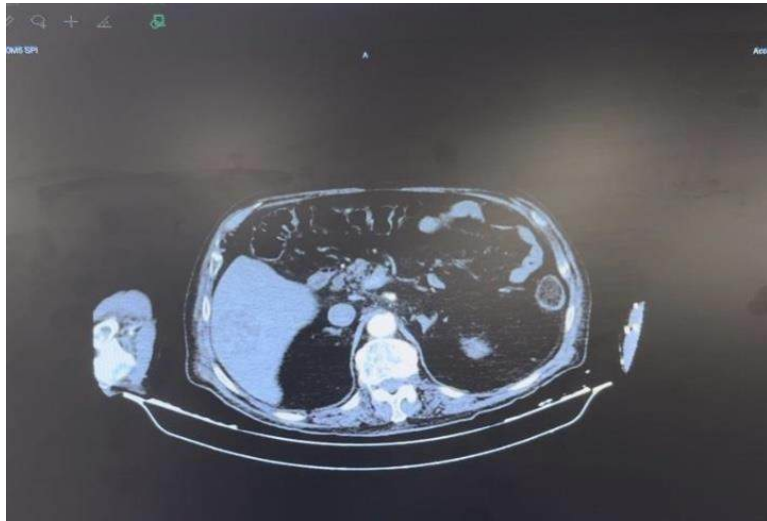
Figure 1



Computed tomography image with contrast in the horizontal section indicated by the white arrow



Figure 2



Computed tomography image with contrast in the horizontal section indicated by the white arrow

Conclusions: Liver abscess is a rare disease that may present with many nonspecific symptoms such as abdominal pain, nausea and anorexia. Therefore, we need imaging modalities such as ultrasound and tomography for definitive diagnosis. The most common complications of pyogenic liver abscesses are pleural effusion, pneumonia, sepsis and septic shock.

Keywords: Liver abscess



Ref No: 9734

Pub No: P-147

From Pimple-Like Lesion to Emergency Surgical Operation

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Background and aim: Fournier gangrene, a relatively rare form of necrotizing fasciitis, is a rapidly progressive disease that affects the deep and superficial tissues of the perineal, anal, scrotal, and genital regions. Fournier gangrene is often associated with general signs of sepsis, rapid tissue destruction, and a high fatality rate of 40%. The spread of inflammation and infection leads to thrombosis of blood vessels, which in turn causes ischemia and tissue necrosis of the adjacent soft tissue and fascia. (1)

Case: A 44-year-old male patient presented to the emergency department with complaints of swelling and redness in the testicular area. He has no known chronic diseases other than coronary artery disease. On admission, his blood pressure was 98/60 mmHg, heart rate was 120bpm, and temperature was 38°C. His general condition was moderate, and his GCS was 15. In the anamnesis, the patient reported that his symptoms began 4 days ago and initially appeared as a small pimple-like lesion, which he attempted to squeeze. On physical examination, the skin in the affected area was red and warm, with the scrotum appearing swollen and erythematous. Redness and warmth had spread to the medial side of the right thigh, and fluctuation was detected in this area. The patient, suspected to be in sepsis, was monitored and IV isotonic hydration, along with empirical antibiotic therapy was initiated. Laboratory tests revealed WBC 28,740/uL and CRP 305mg/L, raising suspicion of a scrotal abscess. A contrast-enhanced CT scan was performed, showing air-fluid levels and abscess formation extending into subcutaneous tissues and muscle. The radiologist assessed these findings as Fournier's gangrene. The patient was taken for emergency surgery and was transferred to the intensive care unit postoperatively.

Conclusions: High clinical suspicion and thorough physical examination are critical for diagnosing Fournier's gangrene. It is important to recognize that these patients can rapidly progress to sepsis and septic shock. Patients should be closely monitored, empirical antibiotic therapy should be initiated, and rapid surgical intervention by the appropriate surgical team is crucial.

Keywords: Fournier gangrene, abscess, emergency department



Ref No: 9792

Pub No: P-008

High index of suspicion: Red flag in the ED green zone

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Background and aim: Guillain-Barré Syndrome (GBS) is an acute immune-mediated peripheral neuropathy frequently following viral or bacterial infections. The condition is characterized by T lymphocyte sensitization against myelin sheaths or axons, predominantly affecting males and younger individuals. Clinical presentation typically includes symmetric weakness, areflexia, ataxia, and paresthesia. Symptoms generally progress over days to weeks.

Case: A 32-year-old male was admitted to our ED Green Zone with a 2-3 day history of progressive numbness and weakness in the feet and hands, with a progression from distal to proximal. The patient also reported an episode of diarrhea 2 weeks prior, which had resolved spontaneously. Physical examination revealed bilateral lower extremity muscle strength of 3/5, upper extremity strength of 4/5, and absent patellar reflexes. Initial laboratory tests were within normal limits. However, lumbar puncture analysis revealed cerebrospinal fluid protein levels elevated to 108 mg/dL, with normal glucose levels of 68 mg/dL and a white blood cell count of 2 cells/ μ L. Cervical and thoracic MRI scans were unremarkable, while electromyography results were consistent with widespread peripheral neuropathy. The diagnosis of GBS was confirmed. The patient received IVIG treatment, administered as 190 g over a 5-day period (40 g daily for the first four days, followed by 30 g on the fifth day). During the 10-day hospitalization, the patient was rigorously monitored. There was a stabilization of symptoms and a reduction in sensory deficits. By the end of the hospitalization period, the patient's condition had sufficiently improved, permitting discharge on the 10th day.

Conclusions: The diagnosis of GBS necessitates a high index of clinical suspicion based on detailed history and physical examination. Timely recognition and management of GBS can significantly improve patient outcomes, highlighting the importance of awareness and preparedness in emergency settings.

Keywords: Guillain-Barré Syndrome, Red flag, ED green zone, IVIG treatment



Ref No: 9884

Pub No: P-123

A Rare Involvement of Non-Hodgkin Lymphoma: Meningeal Lymphomatosis

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Background and aim: Leptomeningeal carcinomatosis is a rare neurological complication characterized by the involvement of leptomeninges and the subarachnoid space by malignant cells from solid tumors, associated with a poor prognosis. Central nervous system (CNS) involvement is seen in 5-30% of non-Hodgkin lymphoma (NHL) cases, whereas this rate is reported as 0.02-0.5% in Hodgkin's lymphoma. Despite neurological symptoms in patients with CNS involvement, significant radiological findings may not always be detected. In our case, we aim to present the CNS involvement of NHL, with physical examination findings but normal cranial imaging, in light of the literature.

Case: A 64-year-old male patient presented with complaints of decreased vision in the left eye for 3 days, ptosis in the right eye, and deviation of the right lip to the right. The patient had been diagnosed with high-grade small-cell diffuse lymphoma since December 2023. At the time of admission, his general condition was moderate, with drowsiness and partial cooperation and orientation loss. On physical examination, muscle strength was 4/5 in both lower and upper extremities. There was ptosis in the right eye, lateral deviation in the left eye, and restricted gaze in all directions in both eyes. No significant pathology was detected in the examination of other systems. Laboratory tests revealed WBC 32,1 10³/µL, Hgb 10.6 g/dL, PLT 110 10³/µL, creatinine 2.06 mg/dL, urea 129 mg/dL. No significant pathological findings were found in the patient's central imaging (brain CT and contrast-enhanced cranial MRI) to explain the newly developed neurological findings. Based on the clinical findings, the patient was admitted to the internal medicine intensive care unit due to meningeal carcinomatosis and acute renal failure.

Conclusions: In patients with non-Hodgkin lymphoma presenting with neurological findings, meningeal carcinomatosis should be considered among central causes, especially when documented involvement is not detected in cranial imaging studies.

Keywords: Meningeal Lymphomatosis, Non-Hodgkin Lymphoma, Hodgkin Lymphoma



Ref No: 9924

Pub No: P-135

Aortic Root Dissection With Unusual Symptoms

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Background and aim: The majority of sudden deaths in adult patients are caused by cardiovascular system diseases, and among these, aneurysmatic dissections are the most common non-cardiac cause. Ascending aortic dissections are usually located 1-2 cm above the aortic valve. The mortality rate in the first days of ascending aorta and arch dissection is 1-3% per hour. In this case report, we planned to talk about a case of dissection at the level of the aortic root that we diagnosed with point-of-care ultrasound (POCUS) despite the patient presenting to the emergency department with non-specific symptoms.

Case: A 56-year-old female patient applied to the emergency department with complaints of fatigue, nausea and dyspepsia. The patient's general condition was moderately poor and she was conscious. Her blood pressure was 50/30 mmHg, his pulse was 54/min, and sinus bradycardia was detected on the ECG. In the POCUS, it was determined that the aortic root was 5 cm and there was extensive fluid in the pericardial area, causing pericardial tamponade. The patient was being followed up due to aortic aneurysm and that he did not have any other comorbidities. The patient's computed tomography angiography (figure 1-2) showed dilatation, dissection in the ascending aorta and was referred to a cardiovascular surgery center for emergency surgery. It was determined that the patient was operated on twice at the center to which he was referred, and during the follow-up, he died on the 5th post-operative day.

Figure 1

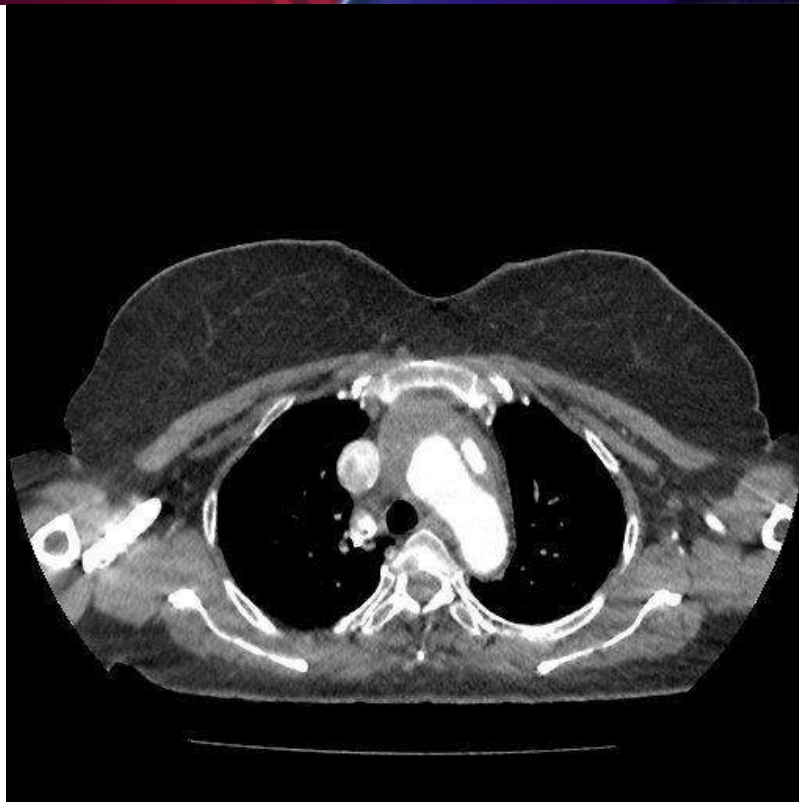
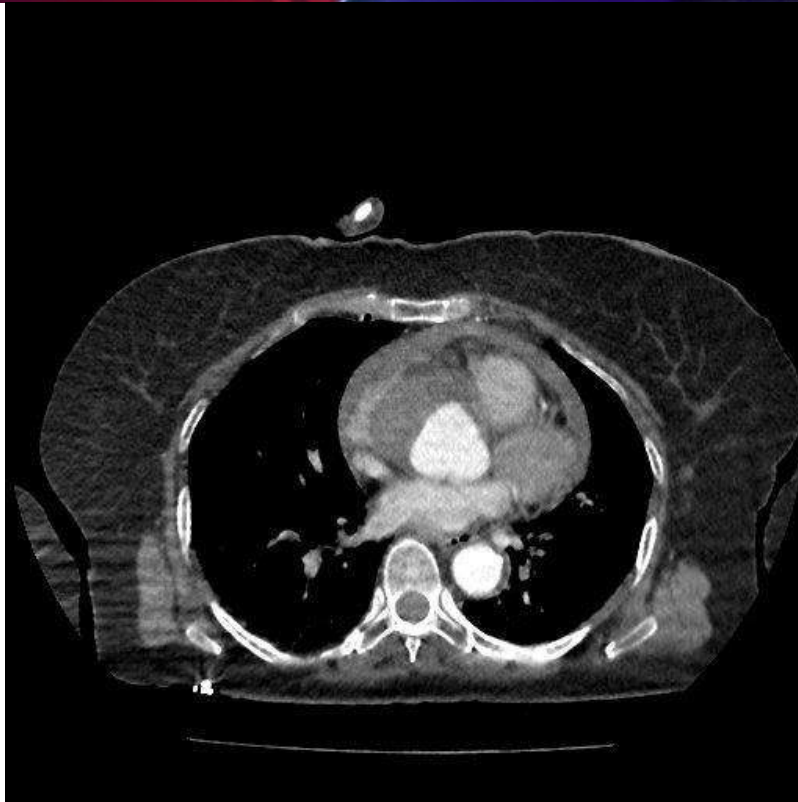


Figure 2



Conclusions: Since aortic dissection cases have a high risk of mortality and a poor prognosis, it is important to make the diagnosis early, but these patients may have very different clinical presentations such as hoarseness, neurological deficit, hemoptysis and may mimic other more common diseases. A good physical examination, detailed anamnesis and appropriate imaging methods performed by emergency physicians are very important in early diagnosis and treatment

Keywords: Aortic root dissection, POCUS



ORAL CLINICAL OR EXPERIMENTAL ORAL ABSTRACTS

Ref No: 1108

Pub No: S-157

A comparison of manual pulse palpation, carotid 2D ultrasonography, and end-tidal CO₂ to detect the return of spontaneous circulation

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Hüseyin Cahit Halhalı / Kocaeli City Hospital

Background and aim: It is essential to maintain continuous chest compressions with minimal interruption during the management of cardiac arrest. It is widely acknowledged that healthcare providers frequently take an excessive amount of time to look for a pulse and frequently encounter challenges in accurately determining its presence. Point-of-care ultrasound of the carotid artery has been suggested as a potential substitute technique for pulse checks. The aim of this study was to evaluate the effectiveness of manual pulse checks, 2D carotid ultrasonography, and rapid increases in end-tidal carbon dioxide levels in determining the return of spontaneous circulation (ROSC) in patients who experienced a cardiac arrest in an emergency department (ED).

Methods: The study was designed as a single-center, prospective, observational study. Non-traumatic adult patients in cardiopulmonary arrest who were brought to the ED were included. The pulses of these patients were assessed using three distinct methods. The team leader made the final decision on the presence of a pulse.

Results: The investigation included 102 cardiopulmonary resuscitation (CPR) events and 642 CPR cycles administered to 88 patients who suffered cardiopulmonary arrest. ROSC was achieved in 49 (55.7%) patients. Notably, 2D ultrasonography was the only method that detected ROSC in 6 (10.3%) patients, while none of the other methods were capable of independently detecting a pulse. The sensitivity of bedside 2D ultrasonography for detecting carotid pulse was found to be 94.8%, with a specificity of 100%.

Conclusions: This study suggests that 2D carotid ultrasonography can be effectively utilized for detecting pulses in patients suffering cardiopulmonary arrest.

Keywords: Ultrasonography, Capnography, Cardiopulmonary Resuscitation, Return of spontaneous circulation, Cardiopulmonary Arrest



Ref No: 1224

Pub No: S-184

Evaluation of patients presenting to the emergency department with ocular complaints

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Rezan Karaali / İzmir Democracy University

Background and aim: Patients presenting to the emergency department with ocular complaints encompass a wide range of scenarios. In the emergency department, physicians should be capable managing conditions such as superficial foreign bodies in the eye, minimal corneal abrasions, photokeratitis, and conjunctivitis. Additionally, they must be able to distinguish between cases that require urgent ophthalmology consultation, such as serious ocular injuries and vision loss and initiate initial treatment for these conditions. This study aims to evaluate the necessity of ophthalmology consultation for patients presenting with ocular complaints.

Methods: Patients who presented to our emergency department from January 1 to June 30, 2024, were evaluated retrospectively. The diagnoses received by the patients and their outcomes (discharge from the emergency department, consultation, referral) were evaluated.

Results: Of the 346 patients, 35.2% presented with uncomplicated conjunctivitis, and these patients were discharged with a prescription. Additionally, 56.3% of our patients had complaints of simple corneal injury and superficial foreign bodies, of which 91.7% were evaluated and treated in the emergency department. A total of 8.5% of the patients were referred to an ophthalmologist. Among these patients, one presented with sudden vision loss suspected to be retinal artery occlusion, another had an orbital tumor pressing on the optic chiasm, and a third presented with orbital trauma following a kick from a horse. After stabilization in the emergency department, these patients were transferred to another hospital by an ophthalmologist.

Orbital tumor



Orbital trauma after horse kick



Conclusions: Since the ophthalmologists in our hospital work on an on-call basis, non-complicated eye complaints, which do not require advanced surgical intervention, can be managed in the emergency department. In our study, patients who were treated and discharged from the emergency department were followed up through the e-Nabız system, and no



need for repeat visits was observed. This indicates that sufficient and effective treatment was provided in the emergency department.

Keywords: Ocular emergencies, Ophthalmology consultations



Ref No: 1314

Pub No: S-144

Effect of the Leuko-Glycemic Index in Predicting Prognosis in Diabetic and Non-diabetic Patients with Acute Pulmonary Embolism

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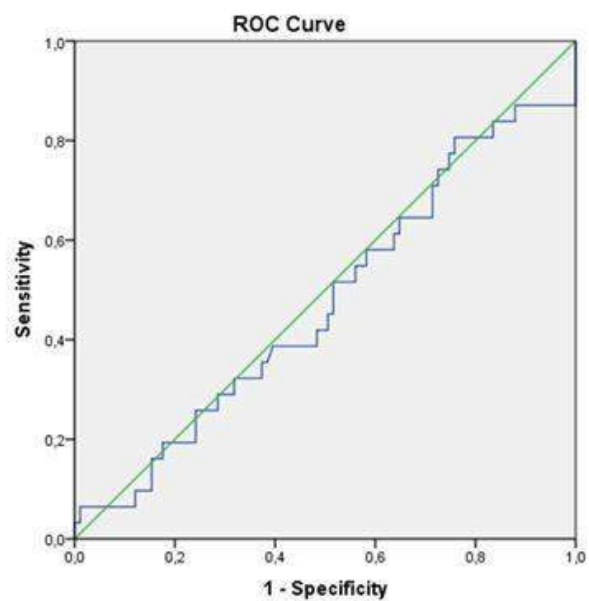
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Background and aim: Background: Acute pulmonary embolism (APE) stands as a significant cause of cardiovascular-related mortality worldwide, necessitating early detection and intervention. Previous studies have underscored the role of inflammatory markers and hyperglycemia in thrombus formation, prompting investigations into the prognostic value of the leuko-glycemic index (LGI), a combination of leukocytes and blood glucose levels. Aims: This study aimed to evaluate the prognostic significance of LGI in APE patients, differentiating between diabetic and non-diabetic cohorts.

Methods: Methods: A total of 199 APE patients were included, with LGI calculated from leukocyte and blood glucose levels upon admission. Patients were categorized into diabetic and non-diabetic groups, and their demographic, clinical, and laboratory characteristics were compared. The prognostic value of LGI for in-hospital mortality was assessed using receiver operating characteristic (ROC) curves.

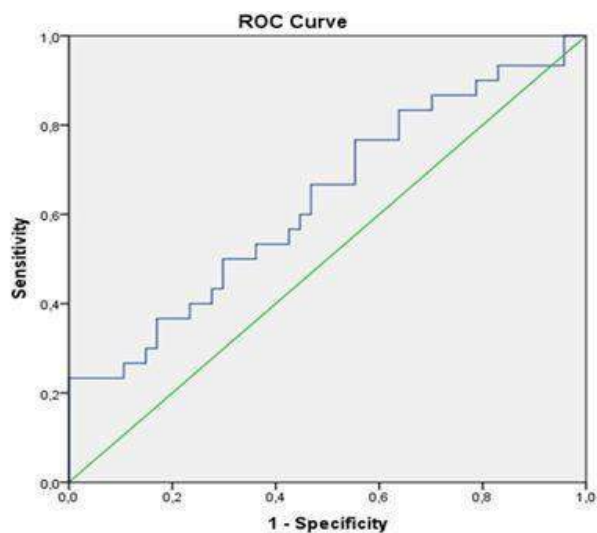
FIGUR1.A



A

A. ROC curve of the leuko-glycemic index (LGI) to predict first 30-day mortality in nondiabetic PTE patients.

FIGUR1.B



B

B. ROC curve of the leuko-glycemic index (LGI) to predict first 30-day mortality in diabetes PTE patients



Results: Results: Baseline characteristics revealed higher mortality rates, blood glucose, and comorbidities like hypertension and coronary artery disease in diabetic patients. LGI did not independently predict mortality in either diabetic or non-diabetic groups. However, a simple PESI ≥ 1 score emerged as a predictor of mortality in non-diabetic patients.

TABLE 1

		Diabetes Status		p
		Yes (n=77)	None (n=122)	
Demographic Data				
Women (%)		47 (61.0)	74 (60.7)	0.957
Age (year) mean ±SD		73.9 (11.5)	74.2 (14.6)	0.866
Medical CV (%)				
Hypertension		62 (80.5)	57 (46.7)	<0.001
COPD*		9 (11.7)	18 (14.8)	0.538
Coronary Artery Disease		26 (33.8)	21 (17.2)	0.007
Congestive Heart Failure		20 (26.0)	21 (17.2)	0.137
Symptoms (%)				
Dyspnea		64 (83.1)	103 (84.4)	0.807
Hemoptysis		0 (0)	1 (0.8)	0.426
Palpitations		6 (7.8)	8 (6.6)	0.740
Chest Pain		14 (18.2)	18 (14.8)	0.326
Syncope		8 (10.4)	9 (7.4)	0.459
Cough		18 (23.4)	38 (31.1)	0.235
Pretibial Edema		13 (16.9)	27 (22.1)	0.368
Vital signs median (IQR TM)				
Systolic Blood Pressure (mmHg)		110 (100, 123)	115 (110, 130)	0.207
Diastolic Blood Pressure (mmHg)		70 (60, 80)	70 (65, 80)	0.811
Heart Rate (beats/min)		85 (76, 91)	83 (75, 91)	0.704
SPO2 (%)		91 (87, 95)	92 (89, 95)	0.156
Laboratory Parameters (IQR)				
Glucose (mg/dL)	Normal:70-100 mg/dL	173.50 (123.25, 271.00)	134.00 (113.00, 156.00)	<0.001
Urea (mg/dL)	Normal:17-43 mg/dL	63.00 (45.25, 88.50)	53.00 (38.00, 96.00)	0.122
Creatinine (mg/dL)	Normal:0,67-1,17 mg/dL	1.02 (0.83, 1.29)	0.94 (0.72, 1.35)	0.008
GFR [†] (ml/min)	Normal:70-145 ml/min	57.38 (43.01, 79.61)	63.14 (81.60)	0.041
Sodium (mmol/L)	Normal: 136-146 mmol/L	137.50 (135.25, 140.00)	139.00 (137.00, 144.00)	0.053
Potassium (mmol/L)	Normal:3,5-5,1 mmol/L	4.50 (4.13, 4.80)	4.30 (4.00, 4.60)	0.006
AST [‡] (U/L)	Normal:0-50 U/L	17.50 (12.00, 29.00)	19.00 (12.00, 49.00)	0.466
ALT [§] (U/L)	Normal: 0-50 U/L	23.00 (16.25, 40.25)	23.00 (17.00, 61.00)	0.832

CRP ^{II} (mg/L)	Normal:0,00-5,00 mg/dL	52.14 (20.72, 173.38)	77.52 (25.72, 149.28)	0.820
D- dimer (ugFEU/L)	Normal :0-500 ugFEU/L	4595.00 (2335.00, 8217.50)	4780.00 (2980.00, 8400.00)	0.278
Troponin (µg/L)	Normal: 0,00-0,16 µg/L	69.35 (17.73, 206.63)	55.10 (20.20, 141.30)	0.261
Ferritin (µg/L)	Normal:13-150 µg/L	184.62 (103.39, 463.13)	149.28 (55.32, 364.68)	0.130
Blood pH	Normal: 7,35-7,45	7.39 (7.33, 7.43)	7.39 (7.34, 7.43)	0.714
Lactate (mmol/L)	Normal: 0,5-1,6 mmol/L	2.27 (1.80, 4.12)	2.20 (1.51, 3.20)	0.207
Hemoglobin (g/dL)	Normal:11-16 g/dL	12.05 (11.02, 13.78)	12.20 (11.30, 13.50)	0.822
Leukocyte (K/uL)	Normal: 0,8-4 K/uL	11.10 (8.50, 14.19)	10.80 (8.63, 13.82)	0.955
Neutrophil (K/uL)	Normal:2,0-7,0 K/uL	8.09 (6.14, 12.38)	8.83 (6.11, 11.20)	0.920
Lymphocyte (K/uL)	Normal:0,8-4 K/uL	1.27 (0.89, 2.56)	1.32 (0.74, 2.00)	0.935
Platelet(K/uL)	Normal: 100-400 K/uL	226.50 (170.00, 308.28)	203.00 (160.00, 277.00)	0.302
MCV ^I (fl)	Normal: 80-100 fl	90.40 (87.35, 94.65)	90.70 (85.77, 95.30)	0.987
MPV ^{**} (fl)	Normal: 6,5-12 fl	9.30 (8.02, 10.05)	8.83 (7.38, 10.10)	0.150
LDH ^{††} (U/L)	Normal: 0-247U/L	299.50 (244.25, 354.25)	274.00 (230.00, 378.00)	0.678
Clinical Situation (%)				
Inotrope administered		12 (15.6)	12 (9.8)	0.225
Intubated		9 (11.7)	8 (6.6)	0.207
NIMV ^{**} Support Area		4 (5.2)	4 (3.3)	0.503
Arrest		4 (5.2)	4 (3.3)	0.503
Simple PEST ^{§§} ≥ 1		49 (63.6)	81 (66.4)	0.691
Emergency Department Outcome (%)				
Outpatient Treatment		5 (6.5)	10 (8.2)	
Service Hospitalization		12 (15.6)	17 (13.9)	
In-hospital ICU ^{III} Admission		12 (15.6)	26 (21.3)	
Out-of-hospital ICU Referral		42 (54.5)	65 (53.3)	0.686
Exposure		4 (5.2)	3 (2.5)	
Treatment Rejection		2 (2.6)	1 (0.8)	
Mortality (%)				
30-day Mortality		30 (39.0)	31 (25.4)	0.037

Table 1. Basic characteristics of patients

TABLE 2

	Non-Diabetic (n=122)		Patients		Diabetic Patients (n=77)	
	High Group (n=63)	LGI Group (n=59)	Low LGI	High	Low LGI	Low LGI
			p	Group (n=37)	Group (n=40)	p
Demographic Data						
Women (%)	34 (54.0)	40 (67.8)	0.118	20 (54.1)	27 (67.5)	0.227
Age (year) mean ±SD	79 (68, 84)	78 (59, 86)	0.798	74 (68, 83)	74 (66, 81)	0.441
Medical CV (%)						
HT.	29 (54.0)	28 (47.5)	0.875	31 (83.8)	31 (77.5)	0.487
COPD*	8 (12.7)	10 (16.9)	0.508	7 (19.8)	2 (5.0)	0.058
CAD	15 (23.8)	6 (10.2)	0.046	10 (27.0)	16 (40.0)	0.229
CHF	10 (15.9)	11 (18.6)	0.685	9 (24.3)	11 (27.5)	0.751
Symptoms (%)						
Dyspnea	53 (84.1)	50 (84.7)	0.925	29 (78.4)	35 (87.5)	0.286
Hemoptysis	1 (1.6)	0 (0)	0.331	0 (0)	0 (0)	-
Palpitation	5 (7.9)	3 (5.1)	0.525	2 (5.4)	4 (10.0)	0.452
Chest Pain	9 (14.3)	9 (15.3)	0.880	6 (16.2)	8 (20.0)	0.667
Syncope	6 (9.5)	3 (5.1)	0.349	4 (10.8)	4 (10.0)	0.907
Cough	17 (27.0)	21 (35.6)	0.305	11 (29.7)	7 (17.5)	0.205
Pretibial Edema	13 (20.6)	14 (23.7)	0.681	7 (18.9)	6 (15.0)	0.646
Vital Signs median(IQRth)						
Systolic Blood Pressure (mmHg)	110 (100, 125)	120 (110, 130)	0.053	110 (100, 125)	120 (101, 120)	0.275
Diastolic Blood Pressure (mmHg)	75 (70.80)	70 (65, 80)	0.682	70 (60, 80)	75 (62, 81)	0.295

Pulse (beats/min)	84 (75, 97)	82 (75, 90)	0.495	82 (72, 90)	85 (76, 91)	0.236
SPO2 (%)	91 (89, 95)	92 (90, 95)	0.280	92 (86, 94)	90 (84, 96)	0.620

Laboratory Findings median (IQR)

Glucose (mg/dL)	Normal:70-100 mg/dL	149 (129, 165)	116 (100, 140)	<0.001	264 (179, 377)	126 (109, 160)	<0.001
	Normal:17-43 mg/dL	60 (36.75, 96.25)	52 (38.50, 93.50)		60 (46.50, 85.50)	73 (33.50, 92.25)	0.310
Urea (mg/dL)	43 mg/dL	96.25	(38.50, 93.50)	0.015	85.50)	(33.50, 92.25)	

Creatinine (mg/dL)	Normal:0,67-1,17 mg/dL	0.99 (0.78, 1.47)	0.83 (0.66, 1.32)	<0.001	0.97 (0.81, 1.17)	1.04 (0.95, 1.36)	0.850
	Normal:70-	60.74 (43.67,	77.66		58.85	55.07	
GFR [†] (ml/min)	145 ml/min	77.19)	(50.49, 85.52)	0.004	(48.71,81.35)	(42.52, 79.61)	0.823
	Normal: 136-	139 (137,	140		137 (133,	138	
Sodium (mmol/L)	146 mmol/L	145)	(137, 139)	0.713	140)	(137, 140)	0.144
Potassium (mmol/L)	Normal:3,5-5,1 mmol/L	4.35 (4.00, 4.70)	4.30 (3.85, 4.50)	0.075	4.13 (4.50,4.85)	4.45 (4.13, 4.80)	0.324
AST [‡] (U/L)	Normal: 0-50 U/L	20 (11, 56)	19 (13, 40)	0.440	16 (12, 28)	18 (11, 29)	0.767
ALT [§] (U/L)	Normal: 0-50 U/L	26 (16.00, 70.00)	22 (17.00, 48.00)	0.418	23 (17.25, 41.00)	22 (16.00, 39.75)	0.646
CRP (mg/dL)	Normal: 0,00-5,00 mg/dL	77 (29.89, 153.23)	96 (13.95, 148.16)	0.114	101 (39.15, 214.57)	30 (11.07, 52.35)	0.031
D-Dimer	Normal: 0-	5235 (2780,	3800		6110 (2537,	3325	
(ugFEU/L)	500 ugFEU/L	8935)	(3005, 8335)	0.083	16145)	(2075, 6622)	0.075
	Normal:	64 (36.15,	21(5.75,		147 (26.75,	29	
Troponin (µg/L)	0,00-0,16 µg/L	255.43)	106.00)	<0.001	330.28)	(16.05, 104.51)	0.119
Ferritin (µg/L)	Normal:13-150 µg/L	148 (51.78, 294.79)	162 (57.94, 601.76)	0.774	372 (120.62, 685.31)	161 (64.20, 238.88)	0.044
	Normal:	7.39 (7.32,	7.39		7.39 (7.32,	7.38	
Blood pH	7,35-7,45	7.43)	(7.34, 7.44)	0.115	7.42)	(7.35, 7.43)	0.058
Lactate (mmol/L)	Normal: 0,5-1,6 mmol/L	2.53 (1.98, 3.55)	1.90 (1.32, 2.72)	0.001	2.80 (2.10, 4.40)	1.90 (1.39, 2.48)	0.027
Hemoglobin	Normal: 11-	13.15	11.80		11.80 (11.02,	12.20	
(g/dL)	16 g/dL	(11.59,14.00)	(11.00, 13.05)	0.001	13.89)	(10.88, 13.78)	0.454

Leukocyte (K/uL)	4 K/uL	16.73)	(6.50, 10.35)	<0.001	17.04)	(7.52, 10.93)	<0.001
Neutrophil (K/uL)	Normal: 2,0-7,0 K/uL	11.02 (9.00, 14.29)	6.11 (4.54, 8.08)	<0.001	12.27 (8.44, 14.93)	6.31 (5.94, 7.75)	<0.001
Lymphocyte(K/uL)	Normal: 0,8-4 K/uL	1.52 (1.03, 1.99)	1.17 (0.69, 2.10)	0.806	1.21 (0.78, 2.95)	1.33 (0.97, 2.23)	0.907
Platelet (K/uL)	Normal: 100-400 K/uL	227.5 (179.7, 290.1)	180.0 (142.5, 224.0)	0.025	266.55 (164.0, 315.3)	212.5 (171.5, 243.0)	0.015

MCV [†] (K/uL)	Normal: 80-100 fl	89.65 (81.80, 95.15)	91.50 (88.99, 95.65)	0.667	89.45 (86.86, 93.53)	92.15 (87.60, 95.60)	0.495
MPV** (K/uL)	Normal: 6,5-12 fl	8.69 (7.42, 10.25)	8.83 (7.17, 9.75)	0.102	8.99 (7.50, 9.79)	9.15 (8.61, 10.80)	0.636
LDH ^{††} (U/L)	Normal: 0-247U/L	288.0 (246.7, 441.2)	262.0 (216.5, 335.5)	0.256	299.5 (230.0, 348.0)	302.5 (252.5, 384.5)	0.596
Clinical Status (%)							
Inotrope given		8 (12.7)	4 (6.8)	0.273	4 (10.0)	8 (21.6)	0.160
Intubated		5 (7.9)	3 (5.1)	0.525	3 (7.5)	6 (16.2)	0.234
NIMV ^{††} Support Recipient		2 (3.2)	2 (3.4)	0.947	1 (2.5)	3 (8.1)	0.268
Arrest		3 (4.8)	1 (1.7)	0.342	1 (2.5)	3 (8.1)	0.268
Simple PESI ^{§§} ≥ 1		47 (74.6)	34 (57.6)	0.047	23 (57.5)	26 (70.3)	0.244
Emergency Department Outcome (%)							
Outpatient Treatment		5 (7.9)	5 (8.5)		5 (12.5)	0 (0)	
Service Hospitalization		7 (11.1)	10 (16.9)		6 (15.0)	6 (16.2)	
In-hospital ICU ^{‡‡} Admission		9 (14.3)	17 (28.8)	0.120	6 (15.0)	6 (16.2)	0.229
Out-of-hospital ICU Referral		38 (60.3)	27 (45.8)		21 (52.5)	21 (56.8)	
Exitus Treatment		3 (4.8)	0 (0)		2 (5.0)	2 (5.4)	
Refusal		1 (1.6)	0 (0)		0 (0)	2 (5.4)	
Mortality Status (%)							
Day 0 Mortality		4 (6.3)	2 (3.4)	0.450	4 (10.0)	4 (10.8)	0.907
0-7 days Mortality		4 (6.3)	6 (10.2)	0.442	3 (7.5)	6 (16.2)	0.234
7-30 days Mortalte		8 (12.7)	7 (11.9)	0.889	6 (15.0)	7 (18.9)	0.646
Total Mortality		16 (25.4)	15 (25.4)	0.997	23 (46.9)	7 (25.9)	0.073

Baseline characteristics of patients with different LGI levels

TABLE 3

	Non-Diabetic Patients OR* (95% CI*)	P	Diabetic Patients OR (95% CI)	P
Gender	1.167 (0.345, 3.947)	0.804	1.069 (0.204, 5.604)	0.937
Age	0.992 (0.931, 1.057)	0.802	1.044 (0.943, 1.156)	0.404
GFR [‡]	0.978 (0.954, 1.003)	0.088	1.003 (0.974, 1.034)	0.825
Troponin	1,000 (1,000, 1,000)	0.399	1,000 (0.999, 1.001)	1,000
Ferritin	1.002 (1.000, 1.004)	0.096	1.001 (0.999, 1.004)	0.251
Hemoglobin	0.806 (0.571, 1.137)	0.219	1.011 (0.674, 1.517)	0.956



Platelet	1.002 (0.995, 1.009)	0.542	0.995 (0.987, 1.003)	0.236
LGI[§]	1,000 (0.999, 1,000)	0.684	1,000 (1,000, 1,001)	0.124
Simple-PESI >1	0.111 (0.016, 0.749)	0.024	1.140 (0.227,1.001)	0.874

Logistic regression analysis results for patients who died within the first 30 days

Conclusions: Conclusion: Although LGI did not independently predict mortality in APE patients, it can complement prognostic tools like sPESI, particularly in non-diabetic individuals. Further studies are warranted to validate these findings on a larger scale and explore additional prognostic markers in APE.

Keywords: acute pulmonary embolism, emergency department, leukoglycemic index, prognosis



Ref No: 1420

Pub No: S-187

Experiences of the Black Sea coastal district hospital in the case of summer drowning

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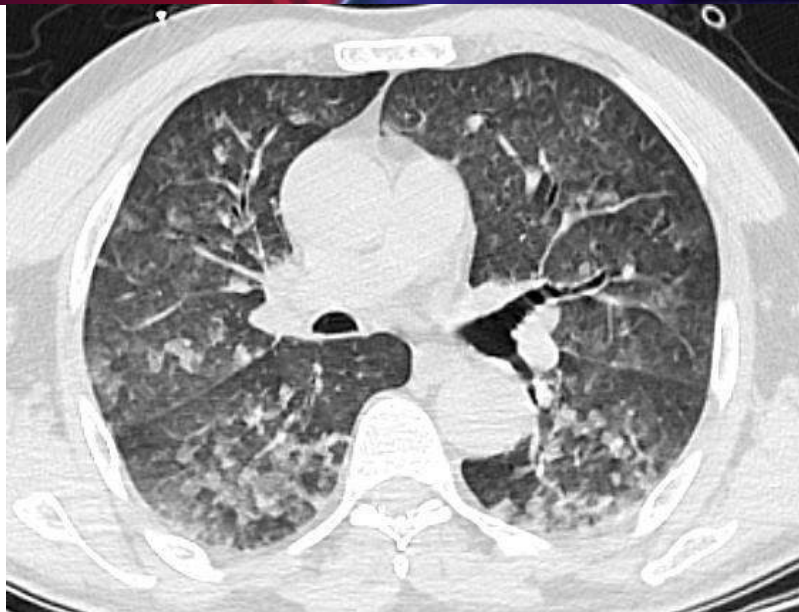
nazmiye özcan / S.B.Ü. Hamidiye Etfal Training and Research Hospital

Background and aim: Drowning remains an important public health problem worldwide and in our country. Emergency department (ED) admission rates for underwater drowning vary by region. The burden of drowning is disproportionately high among men, children and young people in low-income countries. (1) In our study, we examined drowning cases that occurred in June, July and August 2024 in Sarıyer district, which has a Black Sea coast in Istanbul. The aim of the study was to determine the profiles of drowning victims in this 3-month period, to draw conclusions about the factors that may affect them, and to obtain results for the prevention of drowning incidents.

Methods: In this epidemiological study, data on drowning cases in Sarıyer region were obtained by examining hospital records, forensic case reports, hospital forensic book, and hospital morgue records

Results: In June, July and August 2024, 15 cases of drowning were seen on the shores of Sarıyer, 3 of which were considered as exitus at the scene. All of the 12 cases that reached the hospital were brought by 112 teams. All of the 12 patients were male. Of the 12 patients admitted to the emergency department, 6 patients died in the emergency department and 2 patients died in the intensive care unit. Four patients hospitalized in the intensive care unit were discharged. All patients hospitalized in the intensive care unit had ground glass image on thorax tomography. (figure 1) The mean age of the patients was 35 (15-77). Three of the cases were filed between 08:00-10:00 in the morning, seven between 16:00-19:00, and two between 12:00-14:00.

figure 1



Conclusions: Drowning is a public health problem that should be addressed with the collaboration of many sectors. The reporting of such case series can contribute to the study and development of new strategies for the prevention of drowning in our country.

Keywords: drowning, sea, Blacksea



Ref No: 1423

Pub No: P-155

A Disparity in Representation: Scholarly Publications on the Palestine-Israel War (2015-2024)

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Background and aim: Since 1948, Israel has been in a state of war with the Palestinian state. Wars affect both states and, to a large extent, civilians. As a result of Israel's disproportionate attacks on civilians, 134,000 Palestinians have lost their lives, and on October 7, 2023, an additional 40,000 Palestinians were killed. During this period, the number of Israeli deaths was recorded at approximately 2,000.

Methods: Articles published between 2015 and 2024 containing the keywords "Palestine-Israel War" and "Israel-Palestine Conflict" were searched in the Scopus database. The search was completed on September 15, 2024. The articles were categorized by country based on the location of the clinics affiliated with the authors.

Results: A total of 799 articles were found. Of these, 285 originated from Israel and 138 from Palestine. After Israel, the most articles were published in the United States, followed by the United Kingdom, Italy, Canada, and other countries (Table 1). When examining the clinics where the publications originated, Israeli universities were predominant (Table 2).

Figure 1. Distribution of Articles on the Palestine-Israel War by Country

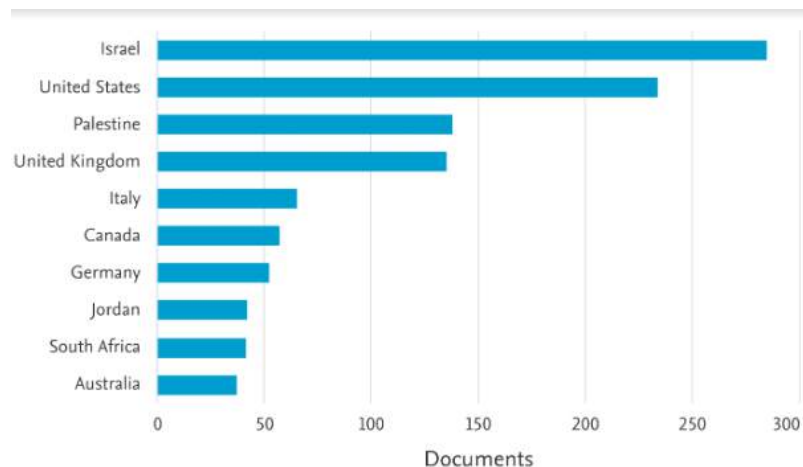
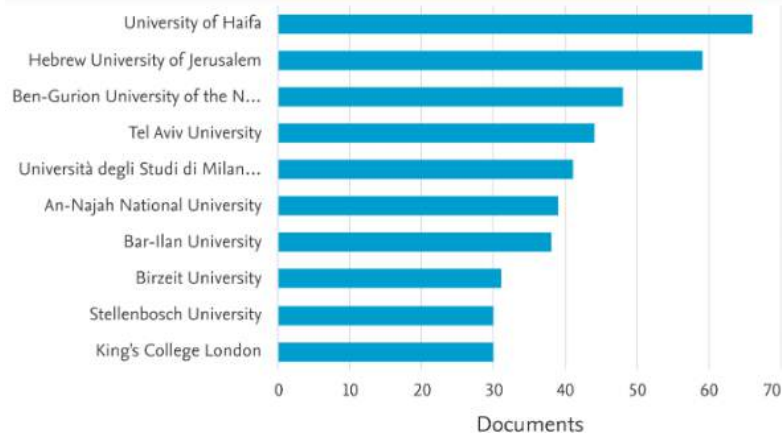


Figure 2. Distribution of Articles on the Palestine-Israel War by Institutions



Conclusions: When considering the mortality rates, Palestinian casualties are approximately 40 times higher than those of Israel. However, Israeli-affiliated studies were published about twice as often. This indicates a bias in favor of Israel within the scientific community.

Keywords: Palestine-Israel War, War Medicine, Scholarly Publications, Disparity in Representation, War Casualties and Bias



Ref No: 1524

Pub No: S-146

Evaluation of emergency department admission of patients with dental diseases: a retrospective analysis of data from a single hospital in the region

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Background and aim: Dental diseases can be excruciating and, if left untreated, can lead to further complications. Some patients prefer to seek treatment in emergency departments (EDs) since they are open 24/7 without the need for an appointment. However, some patients may rely solely on emergency treatment rather than seeking proper dental care, leading to recurring issues. This study aims to examine dental patients' use of EDs and dental hospitals. This study aims to evaluate the use of EDs and dental hospitals by dental patients by examining the data of the sole in the center and the largest hospital in the province.

Methods: In 2023, data on ED visits for dental issues included demographic details, admission times, treatment received, and subsequent visits to the dental hospital after the ED visit. Kırklareli University Faculty of Medicine Scientific Research Ethics Committee approved the study (P202300053-07/29.11.2023).

Results: Among 3179 patients with dental disease, 482 were re-admitted to the ED. The mean age was 31.5±13.4 years. 75.1% received analgesic injections, and 31.3% received prescriptions. The highest rate (49.2%) was observed between 16:00-24:00. 34.4% of the patients were re-admitted to the ED on the same day, and 22% were within 3 days. The mean number of recurrent visits of all patients was 3.3±2.4. The rate of admission to the dental hospital within 15 days was significantly lower for those who were prescribed in the ED ($p<0.005$). The rate of readmission to the ED on the same day and within 3 days was significant for those who were admitted to the dental hospital ($p<0.005$).

Characteristics of patients with re-admission to emergency department

	Min-Max	Median	Mean±SD n(%)
Age	4.0-79.0	29.0	31.5±13.4
Gender F			260(53.9)
M			222(46.1)
Admission time			



09:00-16:00			85(17.6)
16:01-24:00			237(49.2)
24:01-08:59			160(33.2)
*Treatment method			
IM			
IV			362(75.1)
Rp			31(6.4)
			151(31.3)
Re-admission			
Numbers of within 1 year	2.0-26.0	2.0	3.3±2.4
Within 3 days			106(22.0)
Within the same day			166(34.4)

SD: Standard deviation, IM: intramuscular, IV: intravenous, Rp: Recipe * The same patient has multiple results.

Admission status to the dental hospital

	Those who do not go to the dental hospital (n=228)	Those who go to the dental hospital (n=254)	p
	Mean±SD	Mean±SD	
	n(%)	n(%)	
Age	31.0±12.8	32.1±13.8	0.479 ^m
Gender			
F	121(53.1)	139(54.7)	0.716 ^{x2}
M	107(46.9)	115(45.3)	
Admission time to ED			0.932 ^{x2}



09:00-16:00			
16:01-24:00	39(17.1)	46(18.1)	
24:01-08:59	114(50.0)	123(48.4)	
	75(32.9)	85(33.5)	
*Treatment method in ED			
IM	163(71.5)	199(78.3)	0.082 ^{x2}
IV	16(7.0)	15(5.9)	0.619 ^{x2}
Rp	94(41.2)	57(22.4)	0.000 ^{x2}
Re-admission to ED			
Numbers of within 1 year	3.5±2.9	3.1±1.9	0.172 ^m
Within 3 days	40(17.5)	66(26.0)	0.26 ^{x2}
Within the same day	67(29.4)	99(39.0)	0.27 ^{x2}

mMann-Whitney U test / X² Chi-square test, SD: Standard deviation ED: Emergency department, IM: intramuscular, IV: intravenous, Rp: Recipe * The same patient has multiple results.

Conclusions: The study found that dental patients are making repeated visits to the ED for prescriptions and analgesic injections. To address this issue, implementing 24-hour service in dental hospitals, establishing dental emergency outpatient clinics in EDs, or offering symptomatic treatment in dental hospitals could be potential solutions.

Keywords: emergency service, re-admission, Dental disease



Ref No: 1597
Pub No: P-151

Presentation of our cases diagnosed with Thrombosis based on sudden pain, movement limitation and skin symptoms in the upper and lower extremities in our emergency orthopedics and traumatology cases:

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Background and aim: It is emphasized that deep vein thrombosis should be investigated in the etiologies of patients presenting to the emergency department based on pain in the lower and upper extremities, movement limitations and skin symptoms.

Methods: The files of 9 patients who applied to the emergency department of Kafkas University Faculty of Medicine were retrospectively reviewed. Demographic findings, etiological causes, radiological imaging results, surgical treatment and results, and postoperative complications of the patients were recorded.

Results: Of our 9 patients who applied to the Emergency Orthopedics and Traumatology clinic with pain, swelling and limited movement between 1/1/2022-1/8/2024, 3 were female and 6 were male. 2 of the patients presented with symptoms of thrombosis within the first 4 months after orthopedic surgical intervention. Among our other patients, 3 patients presented with supra patellar bursitis and calf pain, 1 patient presented with supra patellar bursitis, calf pain and acute psoriatic symptoms, 2 patients presented with calf swelling and pain, and 1 patient presented with pain, swelling, bruising, limited movement in the right hand and arm in general surgery. The average age of our patients was 55.8. 4 of our patients had significant varicose veins. 8 of our patients had a positive Claudication sign and Homans test. Thrombosis symptoms started to become apparent 3 weeks after bursitis symptoms. When our patients applied to the emergency clinic, they were initially diagnosed as infected cases due to increases in their blood tests and antibiotic treatments were started, but due to the rapid progression of symptoms, Deep vein thrombosis was diagnosed in Doppler ultrasonography performed in our orthopedic clinic and antithrombotic treatments were started.

Conclusions: Pre- and post-operative clinical follow-ups of our orthopedic and surgical patients, controls for metabolic diseases, use of antithrombotic over-the-knee socks, and anticoagulant treatments should be applied until full mobilization.

Keywords: Trombosis, vein, anticoagulant, Doppler Ultrasonography, Homans test



Ref No: 1740
Pub No: P-152

Our Acute Gangrene Cases in Our Emergency Departments After Diabetic Arthropathy and Neurovascular Pathologies.

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Background and aim: Psychosocial and physical evaluation of the effects of early diagnosis and treatment of neurovascular pathologies in the lower extremities on mortality and morbidity in our diabetic patients while receiving treatment with comorbidity diagnoses in Orthopedics and General Surgery clinics during follow-ups.

Methods: The files of 14 patients who applied to the emergency department of Kafkas University Faculty of Medicine were retrospectively reviewed. Demographic findings, etiological causes, radiological imaging results, surgical treatment and results, and postoperative complications of the patients were recorded.

Results: The average age of our patients who have been receiving diabetes treatment for an average of 13 years is 59, 3.9 female, 5 male, 6 patients had Charcot arthropathy, all patients had lower extremity vasculopathy and neuropathy, 10 patients had Tinea pedis, onychomycosis, 6 patients had irregular diabetes. The patients had hypertension, obstructive pulmonary disease, and Alzheimer's disease. Peripheral vascular stent application was performed in 4 patients, but no results were obtained. After gangrene due to fully established vascular damage, 4 patients underwent finger amputations, 5 patients underwent below-knee amputations, and 2 patients underwent above-knee amputations. Hyperbaric oxygen therapy was recommended for 3 patients.

Conclusions: Pre- and post-operative clinical follow-ups of our orthopedic and surgical patients, controls for metabolic diseases, Post-operative prosthesis applications were started after 3 months. However, since psychosocial trauma was evident in all our patients, before applying for amputation surgery, patients should be made obliged to be followed up by family physicians, orthopedists, general surgeon, endocrinology clinics by giving the necessary training frequently and regularly. Socioeconomic losses and psychological trauma after amputation are much more severe in patients.

Keywords: Lower Extremity, Diabetes Mellitus, metabolic diases, orthopedist, gangren

Ref No: 1788
Pub No: S-204

Fasudil Shields Against Sepsis-Induced Kidney Injury by Targeting STAT-3 and NLRP-3 in Rats

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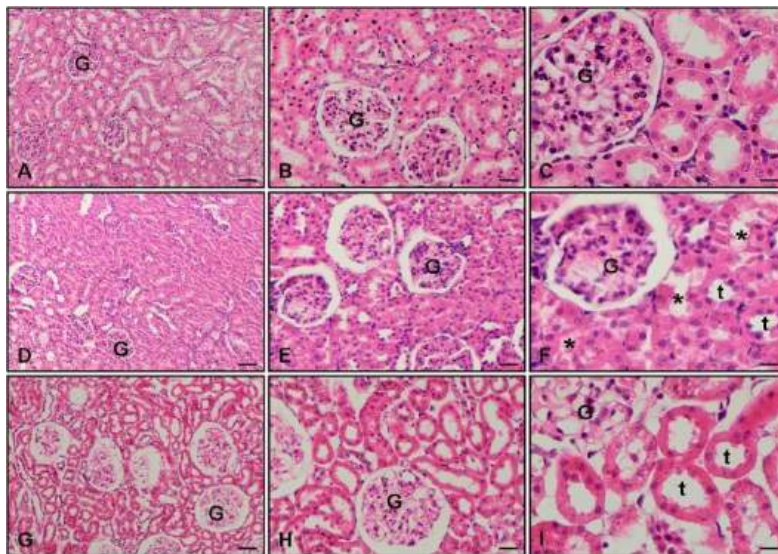
Osman Sezer Çınaroğlu / İzmir Katip Çelebi University Faculty of Medicine Department of Emergency Medicine

Background and aim: The aim of this study was to investigate the protective effects of Fasudil, a Rho-associated kinase inhibitor, on sepsis-induced acute kidney injury (S-AKI) in a rat model. The study specifically focused on the mechanisms by which Fasudil suppresses the STAT-3 and NLRP-3 pathways, which are central to inflammation and immune responses in S-AKI.

Methods: Thirty-six female Wistar albino rats were divided into three groups: a control group, a group subjected to a cecal ligation and puncture (CLP) procedure to induce sepsis and treated with saline, and a CLP group treated with Fasudil (100 mg/kg/day). The study measured kidney function biomarkers (BUN, creatinine), inflammatory markers (TNF- α), oxidative stress (MDA), and the expression of STAT-3 and NLRP-3 in kidney tissues. Renal tissue was examined histopathologically for necrosis, inflammation, and tubular damage.

Results: The results showed that Fasudil significantly reduced inflammatory markers and oxidative stress levels compared to the untreated sepsis group. Fasudil administration also improved kidney function, reflected by lower BUN and creatinine levels. Histopathological analysis demonstrated reduced tubular injury and necrosis in the Fasudil-treated group.

Kidney histopathology





Kidney histopathology x10, x 20, and x 40 magnification, hematoxylin, and eosin (H&E) stain. A-B-C: Normal group kidney, renal tubules ; Glomerulus (G); D-E-F: CLP and saline groups showed severe histopathologic alteration related to tubular injury (t) and necrosis (*); H-H-I: CLP and 100 mg/kg Fasudil groups was showed decreased injury

Conclusions: In conclusion, Fasudil demonstrated significant protective effects in a rat model of S-AKI by reducing inflammation, oxidative stress, and renal tissue damage. These findings suggest that Fasudil could be a potential therapeutic strategy for managing acute kidney injury in sepsis patients, with a focus on targeting the STAT-3 and NLRP-3 pathways.

Keywords: Sepsis, Acute Kidney Injury, Fasudil, Reperative effect



Ref No: 1852

Pub No: S-155

Benzodiazepine poisoning: diverse treatment approaches and clinical protocols worldwide

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Background and aim: Benzodiazepines are commonly prescribed for anxiety disorders, sleep disturbances, and epilepsy. The widespread use of over 50 distinct benzodiazepine agents worldwide contributes to a high incidence of overdoses, making benzodiazepine toxicity a frequent issue in emergency departments. This study aims to compare global treatment approaches and clinical protocols for managing benzodiazepine poisoning, with a particular focus on the efficacy of these interventions.

Methods: A systematic review of literature published between 2000 and 2024 was conducted to compare global clinical practices in treating benzodiazepine poisoning. The review analyzed studies, treatment protocols, and antidote use, particularly Flumazenil, from international databases such as PubMed, Scopus, and Cochrane. Data from regions including the United States, Europe, and Turkey were compared.

Results: The use of benzodiazepines for both therapeutic and recreational purposes varies globally, resulting in differences in laws, prescribing practices, and treatment protocols. Flumazenil, the specific antidote for benzodiazepine toxicity, exhibits significant variations in usage depending on the patient's clinical condition and local guidelines. In the United States, Flumazenil is available but used cautiously due to the risk of seizures in chronic benzodiazepine users. European practices are similar, although some countries enforce stricter usage criteria. In Turkey, while Flumazenil is accessible, its use is limited due to contraindications, with supportive care often taking precedence.

Conclusions: The United States generally favors pharmacological interventions, with a particular emphasis on antidotes, while Europe and Turkey tend toward more conservative strategies, prioritizing supportive care. The administration of Flumazenil requires careful consideration in all regions due to the risk of seizures and is typically combined with supportive measures.

Keywords: Benzodiazepine, toxication, flumazenil, global treatment



Ref No: 1903
Pub No: S-162

Choose your side: SII or CURB65 in geriatrics patients with pneumonia

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Background and aim: We aimed to compare the Systemic Immune-Inflammatory Index and CURB65 scoring system in determining the prognosis of patients over 65 years of age diagnosed with pneumonia in the emergency department.

Methods: Patients over 65 years of age who were diagnosed with pneumonia in the emergency department between 1 January 2023 and 1 January 2024 were retrospectively included in the study. Demographic characteristics, vital signs, consciousness status, neutrophil (n), lymphocyte (l), platelet (l), thrombocyte (t), urea values and discharge/admission status of the patients were recorded. SII and CURB65 scores of the patients were calculated. Data were analysed statistically.

Results: 342 patients were included in the study. 64 (18,7%) patients were hospitalised in intensive care unit (ICU), 234 (68,4%) patients were hospitalised and 44 (12,9%) patients were discharged from the emergency department. According to ROC analysis, CURB65 and SII score were statistically significant for the distinction between hospitalization/discharge and hospitalization /ICU ($P < 0.001$, both of them) When the data were categorized according to the cut off values determined in the ROC analysis; CURB65 over 2.52 and SII over 1573 were found to be significant for hospitalization and CURB65 over 4,12 and SII over 4865 were found to be significant for ICU to the Chi-square analysis, ($P < 0.001$, both of them)

Demographic and blood parameters of patients

	n	%		
<u>Sex</u>				
Female	147	42,98		
Male	195	57,02		
<u>Vital</u>				
Systol BP <90 mmHg	81	23,7		
Systol BP <90-120 mmHg	26	7,6		
Systol BP >120 mmHg	235	68,7		
Diastolic BP< 60 mmHg	47	13,7		
Diastolic BP< 60-90mmHg	122	35,7		
Diastolic BP> 90 mmHg	173	50,6		
<u>Respiratory Rate</u>				
<30	316	92,4		
>30	26	7,6		
<u>Mental Status</u>				
Non-confusion	333	97,3		
Confusion	9	2,7		
<u>Blood Parameters</u>				
BUN> 20mg/dl	93	27,2		
BUN< 20mg/dl	249	72,8		
	Min	Max	Mean	Std. Deviation
Neutrophil	2,29	31,68	10,72	3,2
Lymphocyte	0,31	5,7	2,15	1,3
Platelet	76	527	245	63
<u>SII Score</u>				
CURB65	98,3	6827	1327	986
	1	5	2,8	0,4

Conclusions: High SII values indicate increased systemic inflammation and are associated with poor prognosis in various conditions, including pneumonia. CURB65 is one of the most frequently used scores in the management of patients with pneumonia in the emergency department. In cases where CURB65 is not consistent with clinical prediction, alternatives such as the SII score can be used safely in the management of patients.

Keywords: Systemic Immune Inflammatory Index, CURB65, Pneumonia



Ref No: 1913
Pub No: S-206

The Role of the HALP Score in Indicating the Severity of Acute Appendicitis and Predicting Clinical Prognosis

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Background and aim: It is important to make this distinction with biomarkers when discussing conservative treatment in uncomplicated Acute Appendicitis (AA) cases. The aim of this study is to examine the potential of the HALP score to determine AA severity and predict clinical prognosis.

Methods: In this retrospective study, 94 patients whose HALP score could be calculated at the time of admission, among patients who were hospitalized and operated on due to AA in the 3rd level hospital emergency department between 2015 and 2024, were included in the study. According to the pathology reports, the patients were divided into two groups: complicated and uncomplicated.

Results: Of the 94 patients included in our study, 43 were female and 51 were male, and their average age was determined as 33.45 ± 13.24 . 60 (63.8%) of the patients are in the uncomplicated appendicitis group, and 34 (36.2%) are in the complicated appendicitis group. In our study, no significant statistical difference was found between the complicated and uncomplicated AA groups in terms of complete blood count and biochemistry tests ($p > 0.05$). No significant difference was observed between the complicated and uncomplicated groups in terms of HALP score ($p = 0.200$).

Comparison of Complete Blood Count and Statistical Data by Groups

Variables	Uncomplicated App		Complicated App		P value
	Mean±SD	Median (IQR)	Mean±SD	Median (IQR)	
WBC	14.0±4.15	13.87 (6.29)	14.81±5.58	14.37 (5.36)	0.469
Hemoglobin	13.83±2.12	14.35 (3.35)	13.29±1.99	13.6 (3.03)	0.230
Neutrophile	11.38±4.22	11.42 (6.7)	12.22±5.5	11.67 (5.82)	0.436
Lymphocyte	1.78±0.78	1.7 (0.9)	1.71±0.73	1.55 (1.35)	0.777
Hematocrit	41.24±5.48	42.65 (8.53)	39.84±5.09	39.3 (7.45)	0.303
Platelet	238.58±55.79	236.5 (68.25)	260.71±66.17	256.5 (60.75)	0.096

Comparison of Biochemistry Examination and Statistical Data by Groups

Variables	Uncomplicated App	Complicated App	P value



	Mean±SD	Median (IQR)	Mean±SD	Median (IQR)	
ALT	19.42±12.65	15.5 (11)	17.06±13.61	12 (9.75)	0.065
AST	21.17±11.84	17.5 (8)	17.41±6.6	15 (7.5)	0.107
Albumin	37.24±3.92	37.55 (4.28)	37±3.94	37.65 (3.98)	1.000
CRP	52.53±65.68	31.11 (51.53)	81.58±124.42	29.37 (96.69)	0.944
Glucose	116.57±44.2	105 (27.5)	117.81±29.23	110.5 (29.5)	0.363
Creatinine	0.88±0.2	0.88 (0.29)	0.92±0.39	0.82 (0.33)	0.422
Urea	28.62±9.58	26.85 (10.98)	33.39±26.78	26.5 (15.68)	0.753
BUN	13.54±4.63	12.55 (5.21)	15.83±12.28	12.38 (6.98)	0.819
Sodium	135.7±2.43	136 (3)	136±2.36	136 (4)	0.490
Potassium	4.17±0.34	4.16 (0.41)	4.11±0.35	4.17 (0.51)	0.593

Comparison of HALP Score, Clinical Features and Statistical Data by Groups

Variables	Uncomplicated App		Complicated App		P value
	Mean±SD	Median (IQR)	Mean±SD	Median (IQR)	
Hospitalization Duration, days	2.82±4.0	2 (1.75)	2.71±2.36	2 (2.25)	0.484
Appendix Diameter, mm	10.03±3.07	9.5 (3)	10.22±2.57	10 (4)	0.526
Symptom Duration, days	1.95±1.42	1 (1)	2.63±2.9	1.5 (2)	0.533
HALP Score	4.07±2.42	3.62 (2.51)	3.41±1.73	2.83 (2.08)	0.200

Conclusions: The findings of our study suggest that the use of the HALP score as a routine prognostic tool in the management of AA is limited. Future studies should comprehensively evaluate not only the HALP score but also the prognostic value of other laboratory and clinical parameters.

Keywords: Appendicitis, Complication, HALP Score, prognosis, Emergency



Ref No: 2048

Pub No: S-188

Comparison of Vibrating MESH nebulizer versus Jet nebulizers in COPD Exacerbation patients, Randomized, single-blind Clinical Trial

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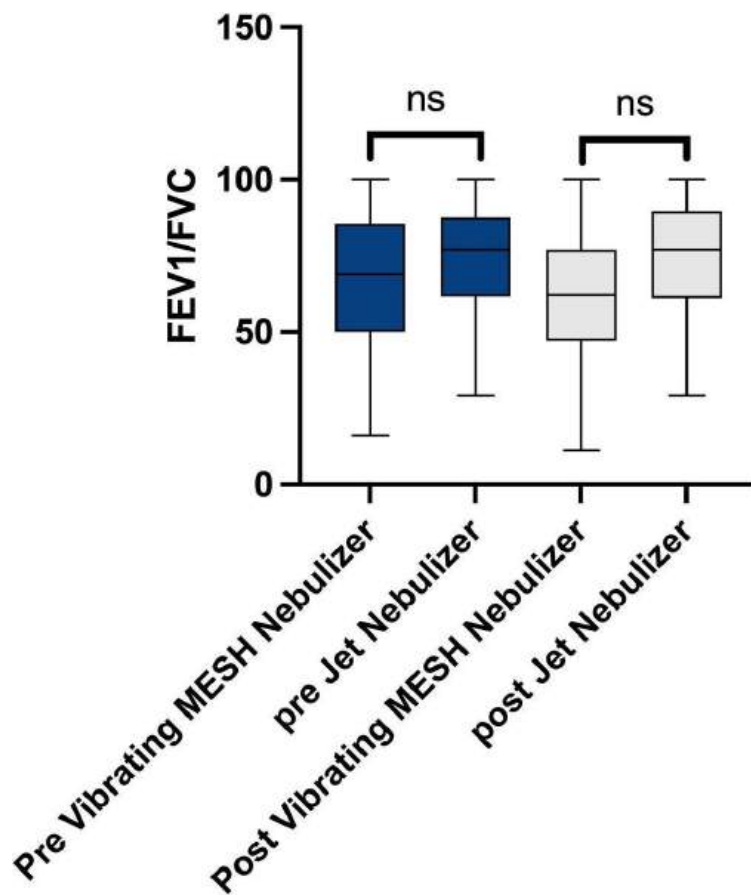
Erdem Cevik / Sultan 2. Abdulhamid Han Research and Training Hospital, Department of Emergency Medicine

Background and aim: β -2 agonists and/or short-acting anticholinergic drugs use is recommended in patients with COPD. Salbutamol is known to cause significant improvement in dyspnea, quality of life and FEV1 in patients with COPD. Various techniques are used to administer drugs, one of which is the nebulization technique and is frequently used in emergency departments(ED). The aim of this study is to compare the efficacy of Vibrating MESH nebulizer versus Jet nebulizers in a COPD exacerbation patient.

Methods: Adult patients who applied to the ED with the complaint of shortness of breath and were diagnosed with COPD exacerbation according to the Gold Guidelines and to be treated with nebulization included in the study. Patients were randomized. Medication was applied to one group with Jet nebulizers and to the other group with Vibrating MESH nebulizer. IPI, spirometric measurements and dyspnea VAS score was recorded at admission and reassessed after 1hour of treatment. All data were documented in patient files, and group codes were used to ensure the researcher evaluating the data was blinded to group assignments.

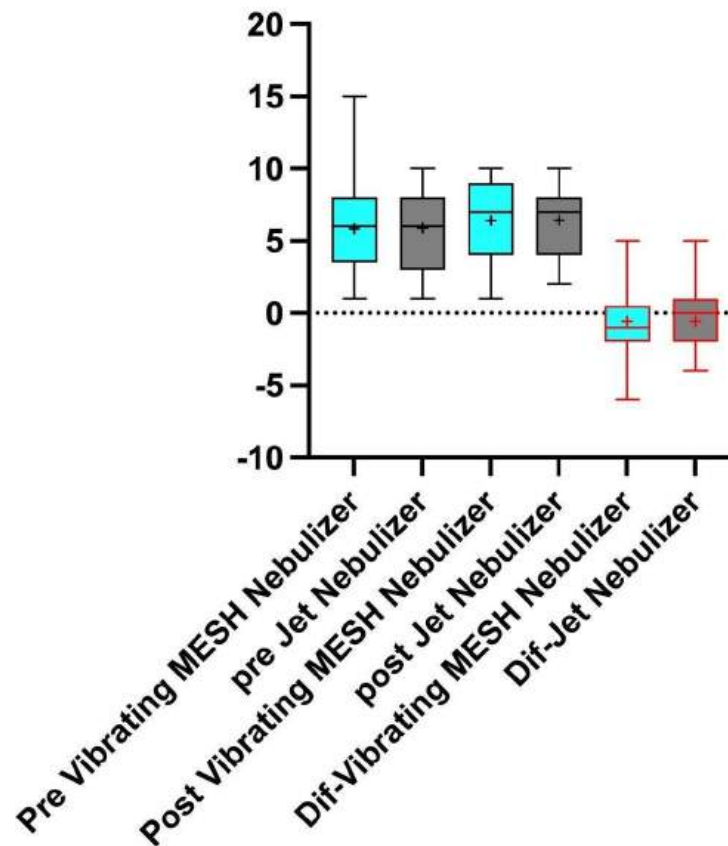
Results: A total of 98 patients were included in the study, with 49 patients in each group. The mean age of the patients was 70 ± 14.9 (95%CI:67-73) and 42 (42.9%) were female. No significant difference in spirometric measurements was observed between the two groups. When comparing pre- and post-treatment IPI values, they increased from 5.88 to 6.45 in the JN group and from 5.84 to 6.41 in the vibrating mesh nebulizer group. For the VAS score, it decreased from 6.73 to 3.96 in the JN group and from 6.08 to 3.33 in the vibrating mesh nebulizer group. The differences in IPI and VAS scores were similar between two groups

Spirometric measurements of groups



Comparing of IPI values of groups

Pre/Post IPI



Conclusions: It was concluded that both techniques can be used in the emergency department for nebulization therapy.

Keywords: COPD, Jet Nebulizer, Vibrating MESH nebulizer



Ref No: 2183

Pub No: S-205

Ultrasonographic Evaluation of Optic Nerve Sheath Diameter Change Before and After Thrombolytic Treatment in Acute Ischemic Stroke

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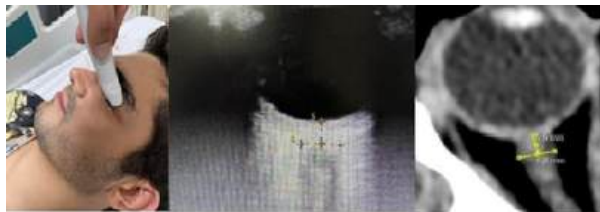
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Background and aim: Acute Ischemic Stroke is a significant cause for morbidity and mortality worldwide. Thrombolytic therapy is the mainstay therapy for AIS in the modern era. Intracranial hemorrhage is one of the most common of thrombolytic therapy complications and can cause significant problems. Non-invasive methods such as ultrasonography are becoming prominent to detect ICH early. We aimed to measure the ultrasonography Optic Nerve Sheath Diameter in patients with AIS before and after thrombolytic therapy and to find out if there is any correlation with the complications at 24 hours.

Methods: Patients aged 18 years and over who were considered suitable for thrombolytic therapy in a AIS patients who applied to Istanbul Kanuni Sultan Süleyman Training and Research Hospital and Istanbul Başakşehir Çam and Sakura City Hospital Emergency Departments were included in the study, which was planned as a two-center, prospective observational and cross-sectional study between 25.03.2022 and 25.10.2022. Before and after the thrombolytic treatment (0. hour, 1. hour and 4. hour), ONSD was measured by an emergency physician at the bedside with an USG device. Patients with and without complications after thrombolytic therapy were grouped and the ONSD measurements were compared.

Optical ultrasonography application technique, B: USG measurement of ONSD, C: ONSD measurement with CT



ONSD with CT scan after thrombolytic in a complication group patient. B: ONSD with USG scan after thrombolytic in a complication group patient.



Results: A total of 116 patients were included in the study between 25.03.2022 and 25.10.2022. The most common complications in patients were 10.3% (n=12) ICH, 8.6% (n=10) brain edema and 0.9% (n=1) shift. We found statistically significant high values in the 4th hour ONSD measurements in the group with complications (right, $p=0.004$, left, $p=0.053$). We found statistically significantly higher ONSD values in the group with complications in the 24th hour measurements with computed tomography (CT) compared to the group without complications ($p<0.001$).

Distribution of complications

	ICH	Brain Edema	Shift
Absent	104 (89.7)	106 (91.4)	115 (99.1)
Present	12 (10.3)	10 (8.6)	1 (0.9)

Analysis of baseline vital parameters, laboratory findings and scoring systems

	Complication (n=100/16)		p value
	Absent	Present	
Systolic Pressure, mmHg	160 [31.75]	165 [20]	0.560
Diastolic Pressure, mmHg	85 [15]	90 [18.75]	0.171
Pulse, beats per minute	70 [10]	75.5 [19.5]	0.094
Respiration Rate, breaths per minute	18.5 [2]	19 [4]	0.476
Saturation, %	95 [3]	94 [3.75]	0.031
Fever, °C	36.5 [0.60]	36.75 [0.78]	0.056
GCS, 3-15	15 [0]	14 [2]	<0.001
Hgb, gr/dl	13.25 [3.38]	12.25 [3.63]	0.387
Hct, %	40.75 [7.9]	36.9 [8.98]	0.323
Plt, $10^3/\mu\text{L}$	224 [79.25]	205 [112.75]	0.335
Glucose, mg/dL	119 [56.5]	132 [51.25]	0.454



Creatinine, mg/dL	0.86 [0.29]	0.92 [0.34]	0.171
PT	12.6 [5.79]	13.55 [5.6]	0.222
INR, second(s)	1.01 [0.18]	1.05 [0.12]	0.216
ASPECT Score	9 [1]	9 [0.75]	0.096
ICH Score	0	1 [1]	<0.001

Relationship between complication groups and ONSD measurements and NIHSS

		Complication (n=100/16)		p value
		Absent	Present	
USG 0 th Hour	RONSD	4.9 [0.60]	5.1 [0.68]	0.136
	LONSD	4.8 [0.88]	4.95 [0.50]	0.594
USG 1 st Hour	RONSD	4.9 [0.60]	4.95 [0.38]	0.203
	LONSD	4.7 [0.80]	4.9 [0.78]	0.279
USG 4 th Hour	RONSD	4.7 [0.60]	4.95 [0.45]	0.004
	LONSD	4.6 [0.70]	4.8 [1.23]	0.053
CT 0 th Hour	RONSD	4.9 [0.50]	5.1 [0.55]	0.275
	LONSD	4.9 [0.70]	5.05 [0.75]	0.159
CT 24 th Hour	RONSD	4.7 [0.40]	5.2 [0.63]	<0.001
	LONSD	4.6 [0.60]	5.2 [0.85]	<0.001
NIHSS 0 th Hour		9 [6]	9 [9]	0.590
NIHSS 1 st Hour		9 [6]	9 [8.25]	0.426
NIHSS 4 th Hour		9 [6]	9 [9.5]	0.502

Conclusions: We think that the follow-up of ONSD values with USG is a useful parameter in predicting the complications that may develop after thrombolytic therapy and in monitoring intracranial pressure.

Keywords: Acute ischemic stroke, Increased intracranial pressure, Optic nerve sheath diameter, Thrombolytic, Ultrasonography



Ref No: 2525
Pub No: S-209

Inflammatory Indexes in Emergency Patients with Hypertensive Pulmonary Edema: A Critical Insight

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Background and aim: Heart failure (HF) is a prevalent and severe condition with high hospitalization and mortality rates, especially in developing countries. Inflammation plays a crucial role in its etiology. Hypertensive pulmonary edema, a severe form of acute decompensated heart failure (ADHF), lacks a definitive scoring system for predicting hospital admission outcomes. This study aims to evaluate the prognostic value of systemic inflammatory indexes (SII), systemic inflammation response index (SIRI), neutrophil/lymphocyte ratio (NLR), platelet/lymphocyte ratio (PLR), and multi-inflammatory indexes (MII-1, MII-2, MII-3) in patients with hypertensive pulmonary edema.

Methods: We conducted a retrospective observational study at Izmir Atatürk Training and Research Hospital from March 1, 2023, to March 1, 2024. We included 150 patients aged ≥ 18 with hypertensive pulmonary edema, excluding those with incomplete data or conditions affecting inflammation. Various inflammatory indices were calculated from blood parameters. We used ROC curve analysis to analyze their correlation with hospital outcomes, including discharge and mortality.

Results: Among the 150 patients (mean age 70.14 ± 11.47 years), 25 (16.7%) experienced in-hospital mortality. Significant differences between discharged and deceased patients were found in systolic blood pressure, neutrophil count, and inflammatory indices. ROC curve analysis showed NLR, SIRI, MII-1, MII-2, and MII-3 as significant predictors of in-hospital mortality, with MII-1 having the highest AUC (0.697) and sensitivity (60.00%).

Conclusions: SIRI, NLR, MII-1, MII-2, and MII-3 may help predict in-hospital mortality in hypertensive pulmonary edema. Further research is needed to validate these markers and explore their utility in clinical practice.

Keywords: Heart failure, Hypertensive pulmonary edema, Systemic inflammatory index, Prognosis



Ref No: 2647
Pub No: S-250

RELATIONSHIP BETWEEN NIHSS SCORE, AF AND OXIDIZED LIPOPROTEIN IN ISCHEMIC STROKE CASES

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Background and aim: Background: The pathophysiology of stroke, also known as cerebrovascular accident (CVA), is still being widely investigated to develop new diagnostic and therapeutic strategies based on atherosclerosis, atrial fibrillation and oxidized LDL (OxLDL). Aim: This study investigated whether there was a relationship between AF prevalence, serum OxLDL level and National Institutes of Health Stroke Scale (NIHSS) score in cases of acute CVA (A-CVA).

Methods: Materials and Methods: The study, conducted as a single-center analytical cross-sectional study, included 25 (male/female: 12/13) patients diagnosed with A-CVA in the Emergency Medicine Clinic between June 2024 and JULY 2024. Demographic characteristics, atrial fibrillation (AF) status and comorbidities (such as hypertension, diabetes mellitus, ischemic heart disease, hyperlipidemia, malignancy and hypothyroidism) of all participants were recorded. The NIHSS score was calculated for all patients on admission and before discharge, and serum OxLDL levels were measured using the ELISA method.

Results: Results: The mean age of the patients was 64 ± 11 years and their BMI was 26.6 ± 5.0 kg/m². 9 (36%) of the patients declared smoking and 4 (16%) declared alcohol consumption. The mean systolic and diastolic blood pressure of all patients was found to be 140 ± 22 / 88 ± 20 mmHg, respectively. 22 of the patients had HT, 9 had DM and 11 had AF. According to the radiological imaging results, mid cerebral artery occlusion was detected in 80% of the patients. OxLDL levels were found to be much higher in A-CVA patients with AF compared to A-CVA patients without AF ($845(479-2153)$ vs. $454(359-2285)$ ng/mL, respectively, $p=0.0179$). There was a moderate positive correlation between NIHSS score and OxLDL levels ($r=0.563$, $p<0.0034$).

Conclusions: Conclusions: In conclusion, OxLDL is associated with the formation of ischemic A-CVA by causing atrial fibrillation through various mechanisms. This relationship may be used to develop a potential treatment strategy.

Keywords: Acute Cerebrovascular Accident, Oxidized LDL, NIHSS score, Atrial fibrilasyon



Ref No: 2731
Pub No: S-200

Analysis of emergency bleeding parameters, clinical follow-up, and treatment processes of patients hospitalized with suspected upper gastrointestinal bleeding

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Background and aim: Upper gastrointestinal (GI) bleeding is a significant cause of emergency admissions, requiring prompt diagnosis and management. This study analyzes the bleeding parameters, clinical follow-up, and treatment outcomes of patients hospitalized from the emergency department with suspected upper GI bleeding.

Methods: This retrospective study included patients admitted to Nigde Omer Halisdemir University Training and Research Hospital between January 1 and July 1, 2024, diagnosed with upper GI bleeding based on specific ICD codes. Patients under 18 years old, discharged directly from the emergency room, or with immune suppression or oncological conditions were excluded. Data collected included demographic information, use of anticoagulants, liver cirrhosis history, rectal examination findings, laboratory parameters (hemoglobin, platelet count, urea, INR), endoscopic results, duration of hospitalization, and mortality rates. Statistical analyses were performed to identify significant correlations.

Results: A total of 99 patients were included, with a median age of 70 years. Of these, 58 were male, and 53.5% had melena on rectal examination. Key laboratory findings revealed a median hemoglobin level of 9.3 g/dL, urea of 60 mg/dL, and INR of 1.15. Endoscopy was performed in 59 patients, with esophageal variceal bleeding detected in 7 patients and active gastric bleeding in 11. Red blood cell transfusions were administered to 44 patients. The median hospital stay was 4 days, and the overall mortality rate was 5.1%. Significant differences were noted in INR and urea levels in patients with positive melena, anticoagulant use, and endoscopy findings.

Conclusions: This study highlights the importance of early identification and aggressive management of upper GI bleeding in the emergency setting. Timely endoscopic evaluation and appropriate transfusion strategies play a key role in management, particularly in patients with anticoagulant use and cirrhosis, who tend to have longer hospital stays and more severe bleeding outcomes.

Keywords: Upper Gastrointestinal, Bleeding, Emergency, Follow-Up, Treatment



Ref No: 2769
Pub No: P-154

ACUTE CORONARY SYNDROME IN PATIENTS PRESENTING WITH CHEST PAIN IN EMERGENCY DEPARTMENT

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Background and aim: Chest Pain is described as a feeling of pain, pressure or tightness between the xiphoid, suprasternal notch and both midaxillary lines. Acute Coronary Syndrome (ACS) refers to a group of clinical disorders that occur as a result of acute myocardial ischemia. ACS encompasses a range of clinical presentations from stable angina to acute myocardial infarction, including the subtypes of non-ST segment elevation myocardial infarction and ST segment elevation myocardial infarction

Methods: We retrospectively analyzed the information of the patients with sufficient file information within a 6-month period at the Department of Emergency Medicine, NEU Faculty of Medicine. Among 1468 admissions, 1428 cases had no acute coronary symptoms and 40 cases had acute coronary symptoms.

Results: The study included 1468 patients. 646 of the patients were female and 822 were male. Acute coronary symptoms were detected in 40 of all cases. Of the patients with acute coronary symptoms, 7 had USAP and 33 had MI.

Conclusions: Chest pain can be a symptom of both serious life-threatening and non-life-threatening diseases and the differential diagnosis is very broad. Pulmonary embolism, spontaneous pneumothorax, aortic dissection, pericarditis, decompensated heart failure are among the common differential diagnoses. Although ACS is one of the first pathologies that come to mind in patients presenting with chest pain, other pathologies should also be considered in the differential diagnosis as a result of the data we have obtained above. We found an axis rate of 2.7% in patients with chest pain. The rate is mentioned as 10% in reference books. This is not consistent with the literature. This situation is thought to make it difficult to reach cardiac diagnoses due to insufficient anamnesis information for other diagnoses that play a major role in differential diagnosis in patients presenting with chest pain.

Keywords: CHEST PAIN, ACUTE CORONARY SYNDROME



Ref No: 2808
Pub No: S-165

Investigation of Dynamic ETCO₂ Values with Side Stream in the Treatment of Pneumothorax: A Prospective Study

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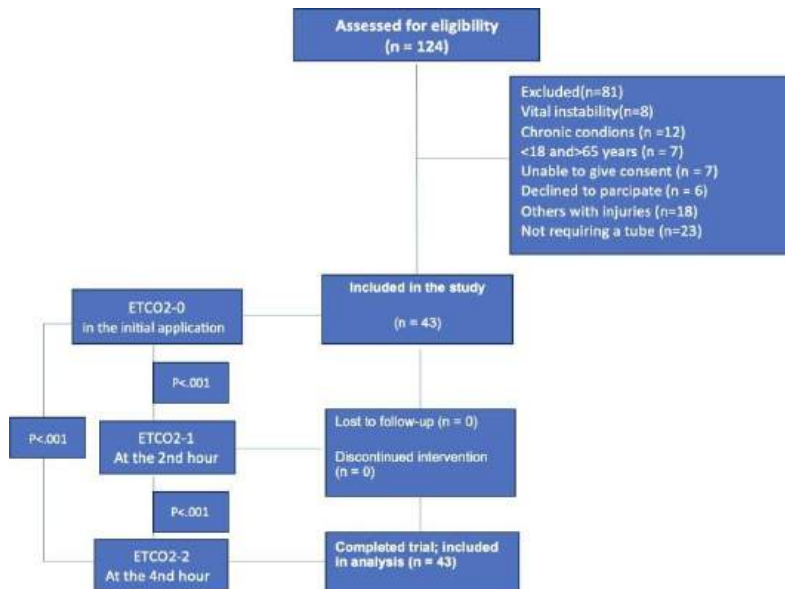
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Background and aim: This study aimed to elucidate the role of ETCO₂ monitoring in PTX cases, particularly in assessing treatment response following tube thoracostomy.

Methods: Conducted at Ankara Bilkent City Hospital's emergency department, this prospective cross-sectional study included 43 patients diagnosed with spontaneous or traumatic PTX. ETCO₂ levels were measured before and after tube thoracostomy, alongside other clinical parameters.

The flowchart and summary of the study



The flowchart and summary of the study



Results: Statistical analysis revealed significant differences in ETCO₂ values before tube insertion and at 2 and 4 hours post-insertion ($P < .001$). The P-values were also less than .001 for all pairwise comparisons in the post hoc analysis. Changes in ETCO₂ levels post-treatment indicated potential as a parameter for monitoring treatment efficacy. However, no significant difference was observed between spontaneous and traumatic PTX cases.

Changes in ETCO₂ Levels Following Chest Tube Insertion

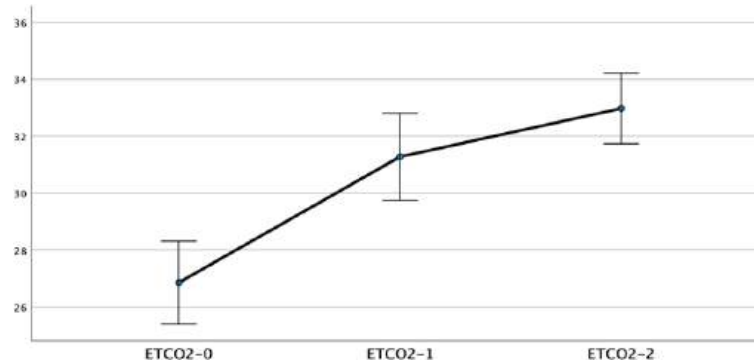


Table 2. Distribution of ETCO₂ levels in patients and the relationship between values before and after tube thoracostomy

Table 2. Distribution of ETCO₂ levels in patients and the relationship between values before and after tube thoracostomy

Mean(SD)		p-value	95% CI		
			Lower Bound	Upper Bound	
ETCO2-0	26.86 (4.72)	<0.001*	25.408	28.313	
ETCO2-1	31.27 (4.97)		29.749	32.810	
ETCO2-2	32.97 (4.01)		31.741	34.212	
Post-Hoc Pairwise Comparisons		Mean diff	p-value		
ETCO2-0	ETCO2-1	-4.419	<0.001**	-6.199	-2.638
	ETCO2-2	-6.116	<0.001**	-8.027	-4.205
ETCO2-1	ETCO2-2	-1.698	0.001**	-2.785	-6.11
Comparison of ΔETCO2 Values					
ΔETCO-1	-4.42 (4.68)	<0.001†	0.818	2.577	
ΔETCO-2	-6.12 (5.02)				
The mean difference is significant at the .05 level.					
*Repeat Measured Anova (Greenhouse-Geisser)					
†Paired Sample T Test					
**Adjustment for multiple comparisons: Bonferroni.					

Conclusions: ETCO₂ monitoring emerges as a promising tool in PTX management, offering insights into treatment response. Further research is warranted to optimize its integration into clinical practice and enhance PTX patient care.

Keywords: Pneumothorax, Tube thoracostomy, End-tidal carbon dioxide



Ref No: 2833

Pub No: S-180

Evaluation of Patients With Penis Fracture: Our Clinical Experiences

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Background and aim: Penile fracture is the tearing of the tunica albuginea in the corpus cavernosum as a result of trauma to the erect penis. Penile fracture may also be accompanied by partial or complete urethral rupture and/or deep dorsal vein injuries. In this study, we aimed to retrospectively evaluate the treatment approaches, clinical features and follow-up of patients who were consulted to our clinic from the emergency department due to penile fracture.

Methods: A total of 8 patients who were admitted due to penile fracture as a result of examinations performed at Erzurum City Hospital Emergency Department between June 2021 and June 2024 were included in the study. Demographic and clinical characteristics of the patients, laboratory and radiological examinations, procedures performed, patient files, visit and operation notes of patients who underwent surgical treatment, and patient discharge reports were evaluated retrospectively. All patients were diagnosed with penile fracture through physical examination.

Results: The mean age of the patients in our study was 36.5 ± 13 (21-69) years. It was recorded that 7 of our cases presented within the first 24 hours and all of them underwent emergency surgery. One case presented 1 week after penile fracture. There were defects varying in length between 1-2.5 cm in the tunica albuginea of the right corpora cavernosa in 4 patients, left 3 patients and both corpora cavernosa in 1 patient. The patient with bilateral tears also had complete urethral rupture. When the patient data were examined, it was observed that 1 patient had decreased erection quality, 3 patients had painful erection and 2 patients had premature ejaculation as long-term postoperative complications.

Penile fracture



Penile ecchymosis due to penile fracture "eggplant deformity"

Penile fracture surgical treatment



Visualization of the defect area in penile fracture

Penile fracture after surgical treatment



Suturation/repair of the defect area

Conclusions: Penile fracture cases are quite common in our country and the number is increasing. It is important to know the diagnosis and treatment well. According to our 3-year experience, early emergency surgical intervention is an effective treatment method to prevent postoperative complications.

Keywords: Trauma, Penile, Fracture



Ref No: 3157

Pub No: S-172

Evaluation of hemoglobin and eosinophil count in patients receiving thrombolytic treatment

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Background and aim: Stroke ranks among the primary contributors to disability and mortality on a global scale. Recent advances in ischemic stroke pathophysiology emphasize the significant role of the immune system in both stroke-related damage and neuroprotection.

Methods: From January 1, 2019, to April 1, 2022, all patients aged 18 years and over who were diagnosed with acute ischemic stroke in the emergency department and treated with intravenous recombinant tissue plasminogen activator (r-tPA) within 4.5 hours of stroke onset were included in this cross-sectional retrospective study. Gender, age, onset of symptoms, complaints, National Institutes of Health Stroke Scale (NIHSS) score, stroke-affected area, as well as blood cell types and hemoglobin levels were recorded.

Results: A total of 61 people were included in the study. Four patients died during follow-ups. The mean duration of symptoms upon admission was 86.23 ± 56.37 minutes. The mean NIHSS score of patients was found to be 9.16 ± 3.88 . There was a statistically significant positive correlation between age and symptom duration ($p < 0.002$, $r: 0.391$). A statistically significant negative correlation was found between eosinophil count and NIHSS score ($p < 0.012$, $r: -0.321$) and between eosinophil count and symptom duration ($p < 0.042$, $r: -0.261$). There was a negative correlation between hemoglobin levels and mortality ($p < 0.013$, $r: -0.318$). A negative correlation was observed between the eosinophil-to-neutrophil ratio (ENR) and NIHSS score ($p < 0.017$, $r: -0.305$) as well as between ENR and symptom duration ($p < 0.034$, $r: -0.271$). For each one-unit increase in hemoglobin, the odds of mortality decrease by a factor of 0.488.

Conclusions: Certain blood cell types (neutrophils, eosinophils, and lymphocytes) play an active role in determining stroke prognosis. A detailed explanation of the role of leukocyte types lays the foundation for "immunomodulation," which could be a promising novel treatment modality for future stroke patients

Keywords: eosinophil, Thrombolytics, stroke, neuromodulation



Ref No: 3234

Pub No: S-081

Hospitalization or discharge status of patients under observation

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Background and aim: IN CASE OF PROLONGED DIAGNOSIS, EXAMINATION AND TREATMENT PROCESSES OF PATIENTS WHO APPLY TO OUR EMERGENCY DEPARTMENT IN THE FIELDS OF SCIENCE, TRAUMA AND RESUSCITATION, THE PATIENT IS TAKEN TO THE OBSERVATION AREA AND FOLLOW-UP IS CONTINUED IN OBSERVATION IN ORDER FOR THESE PROCESSES TO CONTINUE SUSTAINABLE. OUR STUDY AIMED TO DETERMINE WHICH RELEVANT BRANCHES THE PATIENTS TAKEN INTO THE OBSERVATION AREA NEED MORE IN THE PHASE OF FURTHER EXAMINATION AND TREATMENT AND THE DISCHARGE RATES FROM OBSERVATION.

Methods: A TOTAL OF 1606 PATIENTS OF ALL AGE GROUPS WHO APPLIED TO OUR HOSPITAL'S EMERGENCY SERVICE BETWEEN 1 MARCH AND 19 SEPTEMBER 2024, WHOSE EXAMINATION AND TREATMENT TAKEN MORE THAN 4 HOURS AND WERE TURNED OFF TO OBSERVATION, WERE ACCEPTED IN THIS STUDY. OUR STUDY IS A RETROSPECTIVE COHORT STUDY. .

Results: OUT OF 1606 PATIENTS, 1156(71.98%) PATIENTS WERE ADMITTED DUE TO THE RELATED CLINICS OF THE HOSPITAL PROVIDING THEM AND/OR THE FINDING OF A SUITABLE PLACE. MOST OF THE ADMITTED PATIENTS WERE ADMITTED TO THE INTERNAL MEDICINE SERVICE AND THE INTENSIVE CARE UNIT (592,(51.21%)). OUT OF 1606 PATIENTS, 312(19.42%) WERE DISCHARGED FROM THE EMERGENCY OBSERVATION AREA WITH RECOVERY.

Conclusions: OUT OF 1606 PATIENTS, 312(19.42%) WERE DISCHARGED FROM THE EMERGENCY OBSERVATION AREA WITH RECOVERY.

Keywords: EMERGENCY SERVICE, OBSERVATION, INTERNAL MEDICINE, YELLOW AREA



Ref No: 3327

Pub No: S-174

Retrospective Study on The Impact Of Neurovascular Calcifications On Increasing Intracranial Hemorrhage Risk In Acute Ischemic Stroke Patients Treated With Thrombolytic Therapy In The Emergency Department

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Background and aim: In ischemic stroke, there is a risk of hemorrhage during intravenous tissue-type plasminogen activator treatment. Treatment plans are adjusted to minimize the risk of hemorrhage. Our study aims to assess whether intravascular calcifications can predict the risk of hemorrhagic transformation and to evaluate the impact of calcifications on patient outcomes.

Methods: In our retrospective observational study, 244 patients who presented to our emergency department with ischemic stroke and received IV tPA between January 2018 and December 2022 were included. However, after CT angiography evaluations, the data of 243 patients were analyzed. The imaging results of the patients were reassessed by the Radiology Department and scored according to the Kockelkoren classification. Patient groups were formed based on the presence of calcifications, and hemorrhage as well as modified Rankin Scale (mRS) scores at discharge were evaluated.

Results: Calcification was more frequent in stroke patients with hypertension (68% vs. 50%, $p=.043$) or the elderly (72.6 vs. 59.1, $p<.001$). Higher RDW values at admission were linked to calcification (14.6 vs. 13.6, $p<.001$). Those with calcification had higher rates of discharge with mRS scores of 3-6 (91.7% vs. 82.8%, $p=.041$), but no difference in NIHSS scores. Media layer calcification correlated with poorer outcomes (56.9% vs. 41%, $p=.03$ ipsilateral; 54.1% vs. 39.6%, $p=.01$ contralateral). The presence of carotid calcification on the contralateral side (OR, 2.95; 95% CI, 1.09–7.98; $P=.033$), when assessed alongside the risk factors associated with poor prognosis in stroke, is predicted by multivariate regression analysis to significantly increase the likelihood of adverse outcomes. Although not statistically significant, it was observed that patients with calcification on the stroke-affected side did not have an increased risk of hemorrhage (OR, 0.37; 95% CI, 0.136–1.02; $P=.055$).

Conclusions: It was determined that calcification is not a significant predictor of hemorrhage. However, calcification was observed to be an independent predictor of adverse outcomes.

Keywords: Ischemic Stroke, Calcification, Kockelkoren Score, Neurologic outcome



Ref No: 3340
Pub No: S-193

Platelet/calcium Ratio is a Predictor of Multivessel Disease in Patients Evaluated as Unstable Angina Pectoris in the Emergency Department.

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Oğuzhan SANCAR / S.B.Ü Erzurum Şehir Hastanesi Acil Tıp Ana Bilim Dalı

Background and aim: There is no parameter that can predict multivessel disease (MVD) in coronary arteries in patients presenting to the emergency department with symptoms suggestive of acute coronary syndrome. In this study, we aimed to evaluate whether platelet/calcium ratio is a simple and useful parameter to predict MVD in patients with unstable angina pectoris in the emergency department.

Methods: Patients were divided into two groups as those with and without MVD. In our study in which 801 patients were analyzed, MVD was not observed in 705 patients and MVD was detected in 96 patients.

Results: According to the analysis, there was no significant difference between the two groups in terms of gender, CHF, goiter, CVA, leukocyte (WBC) level and hemoglobin (Hb) level, whereas there was a significant difference between the groups with and without MVD in terms of HT, DM, COPD, age, Glomerular filtration rate (GFR) level, LDL level, platelet level, calcium level and platelet calcium ratio (PCR) (Table 1). Univariate and multivariate logistic regression analyses were then performed to examine the value of PCR, LDL level, GFR level, HT and DM diagnoses in predicting MVD. According to univariate logistic regression analysis, PCR, HT, DM and GFR significantly predicted MVD, whereas LDL level alone did not predict MVD. In multivariate logistic regression analysis including the same variables, the situation did not change for LDL level, PCR, HT and GFR level whereas DM was insufficient to predict MVD when considered together with other variables (Table 2).

Table 1: Baseline Characteristic Features

Variables	Multiple vascular disease		P value
	Present(N=96)	Absent(N=705)	
Male Gender(%)	54(56.3)	353(50.1)	0.262
HT, n(%)	54(56.3)	217(30.8)	<0.001
DM, n(%)	13(13.5)	50(7.1)	0.028
CHF, n(%)	2(2.1)	3(0.4)	0.053
GOITER, n(%)	3(3.1)	22(3.1)	0.998
CVA n(%)	1(1)	9(1.3)	0.846
COPD, n(%)	12(12.5)	31(4.4)	<0.001
Age (years)	60.32(9.52)	47.88(11.89)	<0.001
WBC (10 ³ /μL)	7.97(6.74-10.14)	8.15(6.94-10.07)	0.579
HB (g/dL)	15(13.6-16.25)	15.1(13.9-16.4)	0.305
GFR	91.35(80.07-110.02)	108.8(92.43-122.87)	<0.001
LDL (mg/dl)	139(115.5-166.5)	127(101-149)	0.004



Calcium (mol/L)	9.5(8.9-9.9)	9.64(9.3-10)	0.012
Platelets (10 ³ /μL)	254 (218-300)	282 (240-335)	<0.001
PCR	28.04±9.43	30.64±8.66	0.01

HT: hypertension, DM: diabetes mellitus, CHF: congestive heart failure, CVA: cerebrovascular accident, COPD: chronic obstructive pulmonary disease, WBC: leukocyte, HB: Hemoglobin, GFR: Glomerular filtration rate, LDL: Low density lipoprotein, PCR: Platelet Calcium ratio.

Table 2: Univariate and multivariate logistic regression analysis for the predictors of multivessel disease

Variables	Univariate regression			Multivariate regression		
	Odds ratio	Confidence Interval(%95)	P value	Odds ratio	Confidence Interval(%95)	P value
PCR	.962	(.935-.990)	0.039	.961	.925-.997	.034
HT	2.89	(1.87-4.46)	<.001	2.154	(1.210-3.834)	.009
DM	.487	(.254-.935)	.031	1.954	(.833-4.585)	.124
LDL	1.002	.999-1.004	.258	1.001	(.997-1.004)	.693
GFR	.982	.974-.991	<.001	.989	(.978-1.000)	.046

PCR: Platelet Calcium Ratio, HT: Hypertension, DM: Diabetes Mellitus, LDL: Low Density Lipoprotein, GFR: Glomerular Filtration Rate.

Conclusions: In our emergency departments where the workload is so high, there is a need for a simple and useful parameter that can predict the prevalence of coronary artery disease in patients with unstable angina pectoris. PCR, which was the subject of our study, was evaluated as a simple and useful parameter that can be used for this problem.

Keywords: Multivessel disease, Platelet/Calcium ratio, Emergency department



Ref No: 3354
Pub No: S-212

Statistical Review of Logistic Regression Analysis Performed in Articles Examining Mortality-related Factors in Trauma Patients

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Background and aim: In order to interpret the results obtained from a research correctly, statistical tests suitable must first be selected. The purpose of using Logistic Regression Analysis is to establish a model that can define the relationship between dependent and independent variables in a way that has the best fit using the fewest variables. For the analysis to be optimal, the some assumptions need to be considered. It is very important for emergency services and surgeons to know which factors can predict mortality in trauma patients. This is where logistic regression analysis comes into play. In this study, we wanted to examine how logistic regression analyses were performed in articles analyzing factors that predict or affect mortality, which guide our daily practice.

Methods: The first 50 articles published in Web of Science and most cited on the subject of adult trauma were examined. Included articles: 1- The study population was adult patients aged 18 and over 2- The statistical methods used included logistic regression analysis 3- The factors affecting mortality in trauma patients were examined 4- Articles with full text access Parameters examined in the articles: 'assumptions of logistic regression analysis, how the included factors were included, multicollinearity, goodness of fit were examined.

Results: The majority of the articles included in the study were retrospective studies published in Q1 journals. Variable selection ($p < 0.2$, $p < 0.15$, backward stepwise) was explained in half of the articles. Model goodness-of-fit test (Hosmer Lemeshow) was explained in 20% of the articles. Methods used for multicollinearity (VIF, CI, CT, Correlation coefficient) were explained in only 10% of the articles.

Conclusions: Detailed explanation of the statistics will increase the statistical power of the research and increase confidence in the results. In addition, the researcher who reads the articles critically will thus be able to confidently apply the approaches they will add to their practice.

Keywords: Regression Analyses, trauma, mortality



Ref No: 3369

Pub No: S-219

The relationship between heavy metal levels and genotoxic damage in end-stage renal disease patients undergoing and not undergoing hemodialysis.

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Background and aim: ESRD has been suggested that many factors, including heavy metals, exacerbate kidney damage in ESRD; therefore, it is important to reveal the relationship between these factors in ESRD patients.

Methods: The patient group with ESRD consisted of 43 patients undergoing hemodialysis and 31 patients not undergoing hemodialysis. The control group consisted of 40 healthy volunteers, similar to the patient group in terms of age, gender, lifestyle, smoking habits and alcohol use, and without a history of chemical exposure. Hacettepe University NonInterventional Clinical Research Ethics Committee, in accordance with the 1964 Declaration of Helsinki (Date: 29 June 2021; No. GO 21/884)

Results: AI levels and GFR of patients not undergoing dialysis. We can say that the negative correlation between AI levels and GFR in the patient group originates from the patient group that is not on dialysis. There was a strong positive relationship between the duration of disease and AI levels, a moderate positive relationship between the duration of disease and the



levelsof DNA damage and Cd,and a weak or very weak relationship between the duration of disease and the other parameters .There was a moderate positive relationship between dialysis duration and Al,Cd and DNA damage levels. A moderate negative relationship was determined between dialysis duration

Heavy-metal levels of the study groups.

Heavy-metal levels of the study groups.

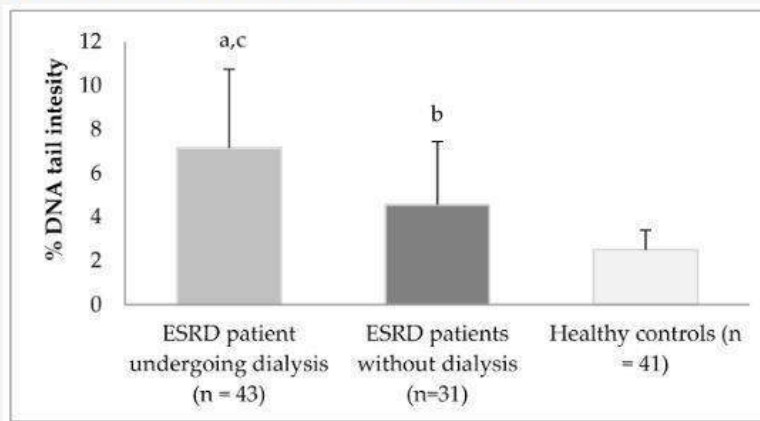
Parameters	ESRD Patients on Dialysis	ESRD Patients without Dialysis	Healthy Controls	p^a	p^b	p^c
Al (ppb)	n = 11/23 (47.8%) 3.58 ± 0.72 (2.94–5.50)	n = 1/28 (3.57%) 3.80 (3.80–3.80)	n = 0/32 (0.0%) 0 ND	-	-	0.780
Cd (ppb)	n = 17/23 (73.9%) 8.07 ± 15.76 (0.05–49.36)	n = 21/28 (75.0%) 0.67 ± 0.98 (0.05–4.25)	n = 17/32 (53.1%) 0.16 ± 0.12 (0.05–0.45)	0.007 *	0.851	0.049 *
Pb (ppb)	n = 10/23 (43.5%) 13.57 ± 9.03 (3.34–35.29)	n = 11/28 (39.3%) 20.41 ± 15.11 (5.67–52.25)	n = 1/32 (3.12%) 0.38 (0.38–0.38)	<0.001 *	<0.001 *	0.225
As (ppb)	n = 23/23 (100%) 4.35 ± 0.93 (2.85–6.35)	n = 26/28 (92.9%) 3.86 ± 1.67 (2.19–10.45)	n = 32/32 (100%) 2.35 ± 0.78 (1.23–5.46)	<0.001 *	<0.001 *	0.132
Hg (ppb)	ND	ND	ND	-	-	-

The values are given as mean ± standard deviation (min–max). a $p < 0.05$, ESRD patients on dialysis compared with healthy controls; b $p < 0.05$, ESRD patients without dialysis compared with healthy controls, c $p < 0.05$, ESRD patients on dialysis compared with ESRD patients without dialysis; *, statistically significant. ND: non-detectable, n = number of samples. 1 ppm, 1 µg/L. Al, aluminum; Cd, cadmium; Pb, lead; As, arsenic; Hg, mercury.

The values are given as mean ± standard deviation (min–max). a $p < 0.05$, ESRD patients on dialysis compared with healthy controls; b $p < 0.05$, ESRD patients without dialysis compared with healthy controls, c $p < 0.05$, ESRD patients on dialysis compared with ESRD patients without dialysis; *, statistically significant. ND: non-detectable, n = number of samples. 1 ppm, 1 µg/L. Al, aluminum; Cd, cadmium; Pb, lead; As, arsenic; Hg, mercury.

DNA damage in the lymphocytes of the study groups.

Figure 1. DNA damage in the lymphocytes of the study groups. DNA damage is expressed as % DNA tail intensity. The values are given as mean ± standard error mean (min–max). a $p < 0.05$, ESRD patients on dialysis compared with healthy controls; b $p < 0.05$, ESRD patients without dialysis compared with healthy controls, c $p < 0.05$, ESRD patients on dialysis compared with ESRD patients without dialysis.





DNA damage is expressed as % DNA tail intensity. The values are given as mean $\pm$ standard error mean (min–max). a $p < 0.05$, ESRD patients on dialysis compared with healthy controls; b $p < 0.05$, ESRD patients without dialysis compared with healthy controls, c $p < 0.05$, ESRD patients on dialysis compared with ESRD patients without dialysis.

Conclusions: There are very limited detailed studies focused on oxidative-stress-related genotoxicevents in ESRD patients undergoing dialysis and on those not on dialysis. In our study, genotoxicity, oxidative stress, and heavy-metal levels (except mercury) increased significantly in ESRD patients. The Al and Cd levels, DNA damage, significantly decreased in the patients undergoing dialysis compared with those not having dialysis. In conclusion, our study is a pioneer report discussing the role of heavy metals, oxidative stress and genotoxic damage in patients with end-stage renal disease. It is assumed that these changes may play an important role in the progression of renal damage. The approaches to reducing oxidative-stress-related DNA damage and heavy-metal load in ESRD patients are recommended.

Keywords: end-stage renal disease; dialysis; heavy metals; DNA damage



Ref No: 3433

Pub No: S-169

Evaluation of The Prognostic Value of Systemic Inflammation Indexes in Patients Diagnosed with Acute Coronary Syndrome in the Emergency Department

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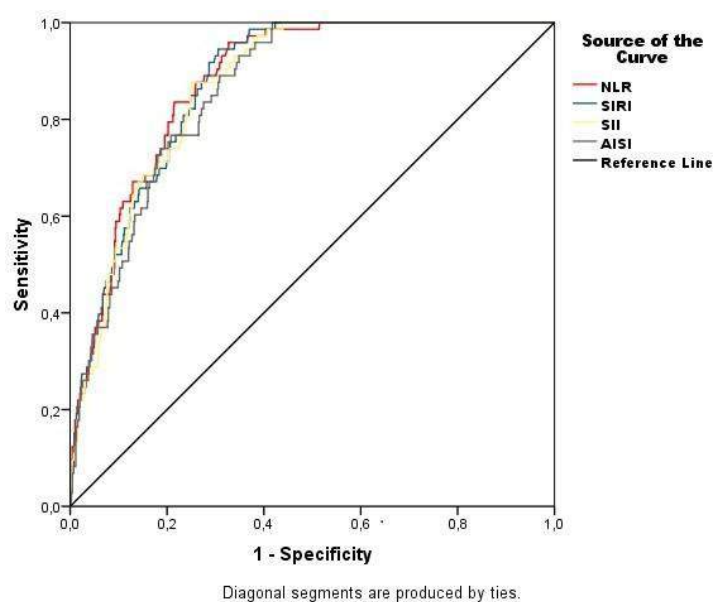
Busra Demirci SAMEDOV / Yalova State Hospital

Background and aim: Cardiovascular diseases progress with inflammation. The aim of this study was to determine the prognostic value of systemic inflammation markers in predicting mortality in cases with acute coronary syndrome (ACS).

Methods: This retrospective cross-sectional study included patients who presented at the Emergency Department (ED) with ACS (STEMI-Non-STEMI). Patients who met the study inclusion criteria were selected retrospectively and data were retrieved from the hospital automated records system. Systemic inflammatory indexes (NLR, SII, SIRI, AISI) were calculated. The patients were grouped according to mortality status and were examined in two groups as STEMI and non-STEMI.

Results: Evaluation was made of 509 patients, comprising 77.2% males and 22.8% females with a mean age of 57.7 years. STEMI was diagnosed in 309 patients and NSTEMI in 200. The most common comorbidities were hypertension in 27.4% of cases, coronary artery disease in 19.4%, and diabetes mellitus in 16.8%. Mortality developed in 14.3% of the cases. The mean age was determined to be significantly higher in the NSTEMI group than in the STEMI group ($p < 0.05$). The neutrophil value, SII, SIRI, and AISI values were determined to be significantly higher in the NSTEMI group than in the STEMI group ($p < 0.05$ for all). The NLR, SIRI, SII, and AISI values were determined to be significantly higher in the exitus patient group than in the survivors group ($p < 0.05$ for all). The multivariate regression analysis results showed that the NLR, SIRI and AISI values had an independent significant effect in the differentiation of surviving and exitus patients ($p < 0.05$).

ROC analysis graphic of Inflammation Indices for mortality



1

Table 1. Analyses of the sociodemographic data between the STEMI and Non-STEMI groups

		STEMI Group		Non-STEMI Group		p			
		Mean±SD/n-%	Median	Mean±SD/n-%	Median				
Age on presentation (years)		55.9±	11.4	55.0	60.6±	12.4	60.0	0.000	m
Gender	Male	253	81.9%		140	70.0%		0.002	X ²
	Female	56	18.1%		60	30.0%			
Comorbidities									
CAD		61	19.7%		88	44.0%		0.000	X ²
HT		105	34.0%		106	53.0%		0.000	X ²
DM		60	19.4%		69	34.5%		0.000	X ²
CLF		3	1.0%		13	6.5%		0.000	X ²
CVE		3	1.0%		4	2.0%		0.330	X ²
HL		14	4.5%		6	3.0%		0.385	X ²
CRF		11	3.6%		11	5.5%		0.293	X ²
CABG		8	2.6%		24	12.0%		0.000	X ²
COPD		8	2.6%		12	6.0%		0.053	X ²
Smoking status	(-)	226	73.1%		155	77.5%		0.268	X ²
	(+)	83	26.9%		45	22.5%			



Family History	(-)	235	76.1%	149	74.5%	0.691 ^{X²}
	(+)	74	23.9%	51	25.5%	

^m Mann-Whitney U-test / ^{X²} Chi-square test

Analyses of the sociodemographic data between the STEMI and Non-STEMI groups

2

Table 2a. Analysis of the Vital and Hematological Parameters between the Groups

	STEMI Group			NSTEMI Group			p
	Mean±SD	Median		Mean±SD	Median		
Systolic blood pressure	136.1 ±	32.6	127.0	136.2 ±	30.3	129.0	0.576 ^m
Pulse	86.5 ±	22.2	84.0	101.6 ±	25.2	100.0	0.000 ^m
Temperature	36.6 ±	0.5	36.8	36.6 ±	0.5	36.8	0.133 ^m
WBC	11.8 ±	4.0	11.5	10.0 ±	3.3	9.7	0.000 ^m
Neutrophils	10.4 ±	5.9	8.4	16.7 ±	6.7	17.1	0.000 ^m
Lymphocytes	2.8 ±	1.5	2.6	2.3 ±	1.1	2.2	0.001 ^m
Monocytes	1.2 ±	0.4	1.1	1.2 ±	0.4	1.1	0.686 ^m
RBC	4.8 ±	0.7	4.9	4.7 ±	0.6	4.7	0.023 ^m
HGB	143.5 ±	19.7	147.0	137.1 ±	19.7	140.0	0.000 ^m
PLT	344.9 ±	104.2	315.0	345.1 ±	104.4	317.0	0.770 ^m
Urea	36.8 ±	19.6	33.0	38.7 ±	19.5	36.0	0.027 ^m
Creatinine	1.03 ±	0.64	0.90	1.05 ±	0.73	0.90	0.636 ^m
CRP	15.9 ±	38.6	4.7	17.4 ±	39.4	5.1	0.248 ^m
LDH	294.3 ±	179.2	239.0	265.2 ±	320.2	214.0	0.000 ^m
Lactate	2.8 ±	1.8	2.5	2.2 ±	1.0	2.1	0.000 ^m
Troponin	246.1 ±	505.8	46.0	557.6 ±	1330.8	100.7	0.005 ^m
Glucose	166.8 ±	79.5	142.0	160.3 ±	76.2	130.0	0.041 ^m
HDL	41.4 ±	12.2	39.0	40.3 ±	11.2	39.0	0.454 ^m
LDL	135.8 ±	58.5	130.0	128.9 ±	73.5	124.5	0.016 ^m
Cholesterol	199.4 ±	53.3	192.0	187.8 ±	49.6	192.0	0.055 ^m
Triglycerides	152.3 ±	115.9	122.0	175.4 ±	144.4	146.0	0.005 ^m
NLR	5.5 ±	6.1	3.4	9.6 ±	10.2	7.4	0.000 ^m



Table 2b. Analysis of the Inflammatory Indexes, Duration of Chest Pain, and Exitus Status between the Groups

		STEMI Group		NSTEMI Group		p
		Mean±SD/n-%	Median	Mean±SD /n-%	Median	
SIRI		6.2 ± 6.9	3.9	11.2 ± 14.1	8.3	0.000 ^m
SII		1869.0 ± 2084.5	1095.0	3362.9 ± 4416.3	2469.7	0.000 ^m
AISI		2133.9 ± 2316.7	1265.8	4052.7 ± 6993.9	2762.0	0.000 ^m
Duration of Chest Pain		287.8 ± 292.2	185.0	1641.2 ± 1642.2	1220.0	0.000 ^m
Hospitalization Duration		3.7 ± 2.5	3.0	4.3 ± 3.4	3.0	0.210 ^m
Length of hospital stay	1-3 days	201	65.0%	106	53.0%	0.007 ^{x²}
	> 4 days	108	35.0%	94	47.0%	
	(-)	269	87.1%	167	83.5%	
	(+)	40	12.9%	33	16.5%	
Exitus						0.264 ^{x²}

^mMann-Whitney U-test / ^{x²} Chi-square test

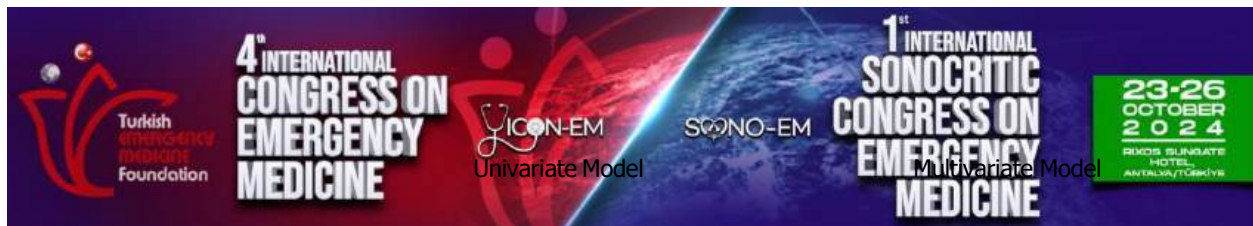
Analysis of the Vital and Hematological Parameters between the Groups

3

Table 3a. Comparisons of Hematological and Derived Inflammatory Indexes in the Exitus and Surviving Groups

	Exitus (-)		Exitus (+)		p
	Mean±SD	Median	Mean±SD	Median	
Lactate	2.5 ± 1.2	2.3	3.4 ± 3.0	2.6	0.031 ^m
Troponin	326.2 ± 785.8	54.0	612.8 ± 1518.6	125.0	0.034 ^m
Glucose	157.6 ± 69.3	135.0	203.8 ± 110.8	167.0	0.002 ^m
HDL	40.8 ± 11.4	39.0	41.9 ± 14.1	39.0	0.759 ^m
LDL	136.9 ± 66.8	130.0	107.5 ± 45.2	95.0	0.000 ^m
Cholesterol	197.9 ± 50.9	197.0	172.8 ± 55.2	159.0	0.000 ^t
Triglycerides	167.8 ± 134.6	135.0	120.2 ± 61.6	106.0	0.009 ^m
NLR	5.9 ± 6.4	4.2	14.2 ± 13.0	10.9	0.000 ^m
SIRI	6.9 ± 9.6	4.6	15.6 ± 12.8	12.0	0.000 ^m
SII	2097.6 ± 3046.6	1411.1	4596.9 ± 3841.3	3660.1	0.000 ^m

Table 3b. Regression Analysis of Inflammation Index Parameters in Respect of Mortality





	OR	95% CI	p	OR	95% CI	p
NLR	1.141	1.094 - 1.190	0.000	1.166	1.075 - 1.266	0.000
SIRI	1.084	1.052 - 1.118	0.000	1.116	1.016 - 1.225	0.021
SII	1.000	1.000 - 1.000	0.000	-	-	-
ASI	1.000	1.000 - 1.000	0.000	1.000	1.000 - 1.000	0.000

^tIndependent Samples t-test / ^mMann-Whitney U-test, Logistic Regression (Forward LR)

Comparisons of Hematological and Derived Inflammatory Indexes in the Exitus and Surviving Groups

Conclusions: Systemic inflammation indexes were determined to be significant in the prediction of mortality in patients with ACS.

Keywords: STEMI-NSTEMI, Systemic inflammation indexes



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Pub No: P-153

Demographic data in bladder cancer

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Ömer Yüceer / Niğde Ömer Halisdemir Eğitim ve Araştırma Hastanesi

Background and aim: Delay in the diagnosis and treatment of bladder cancer adversely affects the prognosis of the disease. There are studies showing that if the time until radical cystectomy exceeds three months after the diagnosis of muscle-invaded bladder cancer, higher pathologic stage and lower survival will be encountered (1). Currently, the combination of cystoscopy and cytologic examination of urine is the gold standard method in the diagnosis of bladder cancer (2). It is clear that early diagnosis has a positive effect on mortality and prognosis (1, 2). In this study, we aimed to determine the demographic data of bladder cancers and to provide another perspective to the literature.

Methods: In our study, the data of patients with bladder cancer admitted to the emergency department of Niğde Ömer Halisdemir University Training and Research Hospital and hospitalized in the medical oncology clinic within the last 12 months were analyzed after being recorded in the SPSS 26 program. Firstly, the conformity of quantitative data to normal distribution was tested with the SHAPIRO WILK test and the nonparametric Mann Whitney U test was used for the analysis. Qualitative data were presented as percentages.

Results: The study included 25 patients and 96% of the patients were male. The most common presenting symptom was hematuria (88%) and the second most common complaint was pain in the suprapubic region (8%). The mean age of the patients was 54.5±14.6 years. There was no significant statistical difference between the length of hospitalization and gender ($p>0.05$). Intensive care unit hospitalization was performed in 12% of the patients due to nosocomial infection and 1 patient died. There was also a significant statistical difference between hematuria complaint and age ($p<0.05$).

Conclusions: Hematuria is the most common symptom of bladder tumors and hematuria in elderly male patients should make the clinician think of bladder cancer.

Keywords: bladder, cancer



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Pub No: S-142

GENERAL OVERVIEW OF GUNSHOT INJURIES IN KARS PROVINCE

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Background and aim: We aimed to review and present our data on gunshot injury cases that presented to the Kars State Hospital and Kafkas University Hospital emergency department in this study.

Methods: Gunshot injury cases that presented to the emergency service between January 2011 and December 2023 and were admitted to various clinics for surgical treatment were included in the study. The demographic characteristics, type of firearm, location of gunshot injuries, duration until presentation to the hospital, injured organs, the treatments used, post-treatment complications and mortality rates were evaluated together with the rate of gun licensing per year. The patients who presented to the emergency service were treated according to the physical examination, laboratory tests and imaging results at presentation.

Results: The 21 gunshot injury cases that presented to the emergency service consisted of 9 females (42.9%) and 12 males (57.1%). The mean age was 39 years for the males and 24 years for the females. The duration of presentation to the hospital after the injury was most commonly 2-4 hours. The most commonly injured organs were the extremities, followed by the abdominal region and cranial region. Open fracture injury patients underwent appropriate debridement, external fixator, and plaque screw, intramedullary nail osteosynthesis; soft tissue injury patients received debridement; and abdominal injury patients underwent laparotomy and appropriate treatment according to the injured organ. Patients who presented with cranial hemorrhage and 4 patients with massive abdominal hemorrhage died. The complications were injury site infection in 5 patients, shortness of extremity in 3 patients.

Conclusions: Gunshot injuries have become more common in rural areas and regions with a lower socioeconomic level in our country together with an increase in the rate of acquiring gun licenses. Gunshot injuries require a long hospitalization duration and can result in high mortality and morbidity rates if prompt intervention is not possible.

Keywords: Gunshot injury, Emergency Service, Surgical Treatment, laparotomy, kars



Ref No: 3494
Pub No: S-071

Missed Traumatic Non-Contiguous Secondary Spinal Fractures

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Background and aim: Multilevel non-contiguous spinal fractures are serious injuries. The incidence of missed diagnoses ranges between 1.6% and 23.8%. The aim of this study is to analyze the frequency, causes, and outcomes of missed diagnoses in the emergency department.

Methods: A total of 259 patients who presented to the emergency department after high-energy trauma, underwent whole spine computed tomography (CT), and were diagnosed with spinal fractures were included in the study. The patients' emergency department and neurosurgery records, along with their spinal CT radiology reports, were retrospectively evaluated.

Results: In 24 cases, secondary non-contiguous fractures were missed during the initial emergency evaluation. Of these, 11 patients required urgent surgery due to vertebral body fractures. For the remaining 13 patients, outpatient follow-up was recommended for the primary fracture. Among the surgically treated patients, 73% had burst fractures at the thoracolumbar junction. In 55% of these cases, the missed pathology was a fracture of the lumbar transverse process. One patient, followed up for the primary fracture, required surgery due to a missed bilateral T10 facet joint fracture. None of the patients exhibited neurological deficits due to the missed fractures.

Conclusions: We believe that the diagnostic process is influenced by the clinician's perception of whether the patient requires surgery. Particularly in cases where primary fractures requiring surgery are present, other regions of the spine may not be thoroughly evaluated. In our series, the incidence of missed diagnoses was 9%, consistent with the literature. None of the patients had missed fractures that required emergency surgery. A thorough anamnesis, physical examination, and detailed radiological evaluation are essential to reduce the risk of missed diagnoses. Additionally, during outpatient follow-ups, we believe that re-examining previous radiological images and reports can be effective in identifying missed fractures.

Keywords: Missed injury, Trauma scan, Delayed diagnosis, Spinal fracture, Non-contiguous spinal fractures



Ref No: 3661

Pub No:

Evaluation of hemoglobin and eosinophil count in patients receiving thrombolytic treatment

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Background and aim: Stroke ranks among the primary contributors to disability and mortality on a global scale. Recent advances in ischemic stroke pathophysiology emphasize the significant role of the immune system in both stroke-related damage and neuroprotection.

Methods: From January 1, 2019, to April 1, 2022, all patients aged 18 years and over who were diagnosed with acute ischemic stroke in the emergency department and treated with intravenous recombinant tissue plasminogen activator (r-tPA) within 4.5 hours of stroke onset were included in this cross-sectional retrospective study. Gender, age, onset of symptoms, complaints, National Institutes of Health Stroke Scale (NIHSS) score, stroke-affected area, as well as blood cell types and hemoglobin levels were recorded.

Results: A total of 61 people were included in the study. Four patients died during follow-ups. The mean duration of symptoms upon admission was 86.23 ± 56.37 minutes. The mean NIHSS score of patients was found to be 9.16 ± 3.88 . There was a statistically significant positive correlation between age and symptom duration ($p < 0.002$, $r: 0.391$). A statistically significant negative correlation was found between eosinophil count and NIHSS score ($p < 0.012$, $r: -0.321$) and between eosinophil count and symptom duration ($p < 0.042$, $r: -0.261$). There was a negative correlation between hemoglobin levels and mortality ($p < 0.013$, $r: -0.318$). A negative correlation was observed between the eosinophil-to-neutrophil ratio (ENR) and NIHSS score ($p < 0.017$, $r: -0.305$) as well as between ENR and symptom duration ($p < 0.034$, $r: -0.271$). For each one-unit increase in hemoglobin, the odds of mortality decrease by a factor of 0.488.

Conclusions: Certain blood cell types (neutrophils, eosinophils, and lymphocytes) play an active role in determining stroke prognosis. A detailed explanation of the role of leukocyte types lays the foundation for "immunomodulation," which could be a promising novel treatment modality for future stroke patients.

Keywords: eosinophil, immunomodulation, ENR, thrombolytics



Ref No: 3748
Pub No: S-179

Are hydatid cyst cases increasing? An analysis of city hospital applications

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Background and aim: Hydatid cyst (HC) remains a significant public health issue globally and in our country. This study aimed to analyze the demographic and clinical management data of newly diagnosed HC cases and to assess whether there was an increase in their frequency.

Methods: This retrospective study examined the demographic and clinical characteristics of patients diagnosed with "hydatid cyst" (Echinococcosis) (ICD 10: B67.0-B67.9) for the first time at Ankara Etilik City Hospital Emergency Department between January 1, 2024, and August 1, 2024. The data were compared with cases from the same period in the previous year (January 1, 2023, to August 1, 2023). IBM SPSS Statics v.26 for Windows program was used for statistical data entry. P value <0.05 was considered significant.

Results: Patients were categorized into two groups: 2023 (n=39) and 2024 (n=102). During the study period, total emergency department visits were 454,894 in 2023 and 614,435 in 2024. No significant demographic differences were found between the two groups ($p>0.05$). There was an increase in the percentage of school-age children in 2024 (12.8%-25.5%). Surgical treatments decreased from 33% in 2023 to 28% in 2024, and complications decreased from 33.3% to 23.5%. Notably, other complications such as biliary tract obstruction and bleeding decreased significantly from 20.5% (n=8) in 2023 to 6.9% (n=7) in 2024 ($p=0.019$), suggesting improvements in complication management. Furthermore, the ratio of HC cases to total emergency department visits increased approximately 1.93 times in 2024 compared to 2023.

hepatic and splenic hydatid cyst



colonic hydatid cyst



infected hydatid cyst



Conclusions: The near doubling of HC cases suggests a significant increase in either the prevalence or the detection rate of the disease. To combat this disease, which poses a public health threat, community hygiene, the cleanliness of drinking water, and the management of stray animals are crucial. Further nationwide studies are recommended to better understand this trend.

Keywords: hydatid cyst, emergency medicine, public health



Ref No: 3791
Pub No: S-167

Evaluation of patients diagnosed with pediatric supracondylar humerus fractures in the emergency department of a tertiary hospital

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Background and aim: Supracondylar humerus fractures (SchFs) are the most common type of fracture around the elbow in the pediatric population. The diagnosis of these fractures can be uncertain, and if missed, they can lead to vascular, structural, or neurological injuries. With this study, we aimed to evaluate the demographic and clinical characteristics of SchFs detected in pediatric patients presenting to the emergency department (ED) of a tertiary hospital.

Methods: This study included patients under the age of 18 who presented to the ED of Ankara Etlik City Hospital between January and July 2024 and were diagnosed with SchF. Patient data were obtained retrospectively from the hospital database.

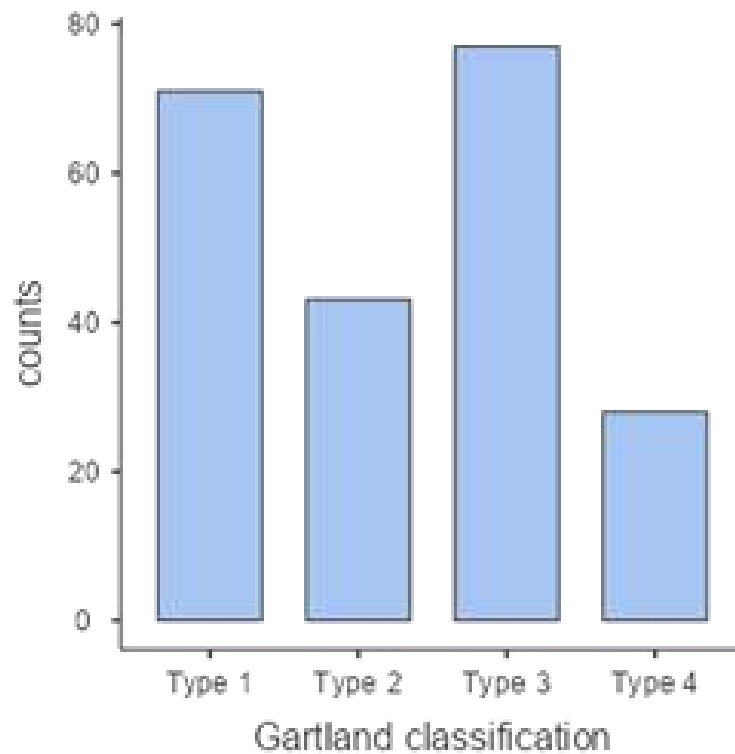
Results: A total of 219 patients were included in our study, consisting of 120 (54.8%) males. The average age of all patients was calculated as 6.89 ± 3.09 years. The average time to presentation was found to be 5.72 ± 8.22 hours. Of the patients included in our study, 125 (57.1%) presented to the ED due to falling from their own height, 39 (17.8%) due to falling from a height, 4 (1.8%) due to a traffic accident, and 51 (23.3%) due to other traumas. Closed SchFs were detected in 215 (98.2%) patients. Neurovascular deficit was identified in 19 (8.7%) patients. Among the patients, 77 (35.2%) had a Type III fracture, 71 (32.4%) had a Type I fracture, 43 (19.6%) had a Type II fracture, and 28 (12.8%) had a Type IV fracture according to the Gartland classification. Closed reduction was performed in 44 (20.1%) patients and open reduction was performed in 10 (4.6%) patients. A total of 124 (56.6%) patients underwent surgical treatment.

Table 1: Demographic and clinical characteristics of patients



Trauma type	N	%
Falling from one's own level	125	57.1 %
Falling from height	39	17.8 %
Traffic accident	4	1.8 %
Others	51	23.3 %
Mechanism type		
Low	101	46.1 %
Middle	90	41.1 %
High	28	12.8 %
Extremity side		
Right	97	44.3 %
Left	122	55.7 %
Fracture type		
Closed	215	98.2 %
Open	4	1.8 %
Deficit		
None	200	91.3 %
Available	19	8.7 %
Fracture type according to Gartland classification		
Tip 1	71	32.4 %
Tip 2	43	19.6 %
Tip 3	77	35.2 %
Tip 4	28	12.8 %
CT need		
None	203	92.7 %
Available	16	7.3 %
Reduction		
None	165	75.3 %
Closed	44	20.1 %
Open	10	4.6 %
Treatment		
Conservative	95	43.4 %
Surgical	124	56.6 %

Figure 1: Fracture type according to Gartland classification



Conclusions: SCHFs are a common reason for ED visits in children. It is critically important for the emergency physician to quickly diagnose these fractures and refer them for treatment in order to improve clinical outcomes.

Keywords: emergency department, supracondylar humerus fractures, paediatrics



Ref No: 3800

Pub No: S-132

The incidence of hyponatremia in geriatric patients presenting to the emergency department with headache

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Background and aim: Hyponatremia is common in the geriatric population, particularly due to physiologic decline, comorbidities, and/or polypharmacy. Headache is one of the most common neurologic complaints in the geriatric population. Hyponatremia is one of the rare conditions that can cause secondary headache. The aim of our study was to evaluate the frequency and etiology of hyponatremia in geriatric patients presenting to the emergency department (ED) with atraumatic headache.

Methods: Patients aged 65 years and older with serum sodium level who presented to ED with headache were included in the study. Demographic data, comorbidities, complaints other than headache on admission, vital signs, laboratory results, medications were retrospectively reviewed. Patients were classified as primary or secondary according to their headache. In hyperglycemic patients, the "corrected sodium" level was calculated

Results: The study included 429 patients. Hyponatremia was detected in 17.7% (n=76) of the patients and was mostly mild (56.6%). When comparing normonatremic and hyponatremic patients, hyponatremic patients had more frequent hypothyroidism and diuretic use, longer hospital stays, higher BUN, lower serum osmolality, hemoglobin and albumin levels ($p < 0.05$ for all values).

table 1

Age, years, median (IQR ¹ 25-75)	72 (68-78)
Sex n (%)	305 (71.1%)
Female	
Co-morbidity n (%)	255 (59.4)
Hypertension	173 (40.3)
Diabetes Mellitus	185 (43.1)
Cardiac disease	44 (10.3)

Chronic renal failure	18 (4.2)
Hypothyroidism	33 (7.7)
Dementia	110 (17)
Chronic obstructive pulmonary disease	
Drugs n (%)	134 (31.2)
ACE-I ²	25 (5.8)
Antidepressant	195 (45.5)
PPI ³	143 (33.3%)
Diuretic	
Symptoms, n (%)	67 (15.6)
Fatigue	55 (12.8)
Dizziness	46 (10.7)
Nasua/Vomiting	30 (7)
Weakness	1 (0.2)
Convulsion	
Vital signs	15 (15-15)
GCS ⁴	86 (80-89)
Pulse	129 (120-134)
Systolic	86 (83-91)
Diastolic	36.2 (36.1-36.2)
Temperature	
Headache type, n (%)	173 (40.3)
Primer	42 (9.8)
Tension	134 (31.2)
Migraine	33 (7.7%)

Seconder	6 (1.4)
Hypertension	6 (1.4)
Hyponatremia	45 (10.5)
Cervical spine disorder	
Drugs	
Unknown	
Hyponatremia, n (%)	76 (17.7%)
Hyponatremia severity, n (%)	
Mild	43 (56.6%)
Moderate	28 (36.8%)
Severe	5 (6.6%)
Laboratory, median (IQR 25-75)	
Hemoglobin	13.1 (12.6-13.7)
Glucose	108 (97-133)
Sodium	138 (135-141)
Corrected sodium	138.3 (136-141.1)
BUN ⁵ mg/dL	46 (35-58)
Creatinine mg/dL	1.02 (1.01-1.2)
Albumin g/dL	4 (3.8 -4.2)
Osmolarity	287 (282-293)
Hospitalization, n (%)	23 (5.4%)
Hospital stay duration, (days) median (IQR 25-75)	4 (2-6)

Demographic data of patients (n=429)

table 2



Hypovolemic	48 (63.2%)
Diuretic use	38 (79.2)
Decreased oral intake/vomiting	10 (20.8%)
Normovolemic	22 (28.9%)
SIADH ¹	15 (68.2%)
Hypothyroidism	7 (31.8%)
Hypervolemic	6 (7.9%)
Chronic renal disease	4 (75%)
Hypoalbuminemia	2 (25%)

Possible causes of the hyponatremic group according to volume status

Conclusions: Older adults are at higher risk for secondary headache. We have demonstrated the presence of hyponatremia in a significant proportion of patients presenting to the emergency department with headache. We have shown that most hyponatremia is hypovolemic and is caused by diuretic use, dehydration, and inappropriate ADH syndrome. Although primary headache is more common in the geriatric age group, hyponatremia should rank high in the etiology of secondary headache in patients with comorbidities and polypharmacy.

Keywords: elderly, geriatric, headache, hyponatremia



Ref No: 4009

Pub No: S-195

Comparison of Analgesic Efficacy of Dexketoprofen and Ibuprofen in Pain Management of Rib Fractures in Emergency Department: A Prospective Randomized Single-Blind Controlled Clinical Study

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Background and aim: Trauma refers to structural and physiological disruptions caused by external forces (mechanical, thermal, electrical, and chemical energy). A significant portion of emergency department visits are trauma-related. Rib fractures occur in 39% of trauma patients, with severe pain and reduced quality of life, particularly limiting functions like coughing and deep breathing. Effective pain management is a universal healthcare standard. This study aims to compare the analgesic efficacy of ibuprofen and dexketoprofen in patients with rib fractures.

Methods: This single-center, prospective, randomized, single-blind, controlled clinical study was conducted at Ankara City Hospital Emergency Department from September 1, 2023, to May 25, 2024, over a period of 9 months. Pain levels at admission and at 30 minutes, 60 minutes, and 120 minutes were recorded using the VAS scale on case report forms by the responsible researcher.

Results: The study was completed with 128 patients, 64 in each group. There were no statistically significant differences in demographic data and VAS scores at admission between the two groups. However, significant statistical superiority was observed in favor of ibuprofen in VAS scores, Δ VAS, and % Δ VAS at all time points ($p < 0.001$; independent sample t-test). The 95% confidence intervals for Δ VAS at 30 minutes, 60 minutes, and 120 minutes were 7.11–15.50, 12.77–21.40, and 16.07–23.79, respectively. The 95% confidence intervals for % Δ VAS at the same time points were 9.66–21.15, 17.41–28.87, and 22.61–31.20, respectively, and were statistically significant. Another primary endpoint was the use of rescue medication, with 2 patients (3.1%) in the ibuprofen group and 20 patients (31.3%) in the dexketoprofen group requiring rescue medication, showing a statistically significant difference between the two groups.

Demographic characteristics of the patients, height, weight, number of rib fractures, rib fracture location and vital signs

Demographic characteristics of the patients, height, weight, number of rib fractures, rib fracture location and vital signs					
Variables		Treatment Group			p-value
		IBU	DEX	Difference - 95% CI	
Gender, n (%)	Male	42 (65.6)	42 (65.6)	-0.18 – 0.18	1.00*
	Female	22 (34.4)	22 (34.4)		
Age, mean ± SS		56.94 ± 15.82	54.23 ± 18.43	-3.30 – 8.71	0.375†
Size, mean ± SS		170.92 ± 11.79	173.80 ± 6.16	-6.17 – 0.42	0.087†
Weight, mean ± SS		72.02 ± 7.13	74.36 ± 7.83	-4.96 – 0.27	0.079†
BMI, mean ± SS		24.98±4.70	24.60±2.22	-0.90 – 1.66	0.561†
Fracture localization , n (%)	Left	40(62.5)	33(51.6)	-0.06 – 0.28	0.211*
	Right	24(37.5)	31(48.4)		
Number of Fractures , med(25-75%)		2(2-3)	2(2-3)		0.805‡
BP Systolic, mean ± SS		135.59 ± 13.32	135.16 ± 11.21	-3.87 – 4.74	0.841 †
BP diastole, mean ± SS		69.16 ± 10.77	71.1 ± 9.50	-5.52 – 1.58	0.275 †
Pulse/Minute , mean ± SS		75.44 ± 11.34	78.56 ± 11.60	-7.14 – 0.89	0.126†
Saturation -%, ortalama ± SS		94.81 ± 2.10	95.64 ± 1.81	-1.51 - -0.14	0.018†
Respiratory Rate/Minute , med (25-75%)		18 (17 - 19)	18 (17 - 20)		0.384‡
*Pearson Chi-square test					
†Student-t test					
‡Mann Whitney-U					
CI: Confidence Interval, SS: Standard Deviation, med: median, BMI: Body Mass Index , BP: Blood Pressure					

VAS Comparison Between Groups

VAS Comparison Between Groups				
Variables	Treatment Groups			p-Value
	IBU Mean ± SS	DEX Mean ± SS	Difference- 95% CI	
VAS-0	78.11 ± 6.72	79.86±8.53	-4.43 - 0.93	0.200*
VAS-30	49.14 ± 16.81	62.20±13.41	-18.38 - -7.74	<0.001*
VAS-60	25.83 ±14.61	44.67±13.21	-23.71 - -13.97	<0.001*
VAS-120	6.28 ± 8.71	27.97 ±11.31	-25.22 - - 18.15	<0.001*
*Independent samples-t test CI: Confidence Interval SS: Standard Deviation				

Comparison of VAS differences and rescue medication use between groups

Comparison of VAS differences and rescue medication use between groups				
Variables	Treatment Groups			p-value
	IBU Mean ± SS	DEX Mean ± SS	Difference- 95% CI	
ΔVAS-30	28.96 ± 13.41	17.65±10.38	7.11 – 15.50	<0.001*
ΔVAS-60	52.28 ± 12.86	35.18±11.77	12.77 - 21.40	<0.001*
ΔVAS-120	71.82± 10.18	51.89 ±11.81	16.07 – 23.79	<0.001*
ΔVAS%-30	37.81 ± 18.95	22.40 ± 13.43	9.66 – 21.15	<0.001*
ΔVAS%-60	67.43 ±1 7.99	44.29 ± 14.58	17.41 – 28.87	<0.001*
ΔVAS%-120	92.03 ± 11.10	65.08 ± 13.59	22.61 – 31.29	<0.001*
Rescue Medication Use (%)	2(3.1)	20(31.3)	-0.64 - -0.34	<0.001†
*Independent samples-t test †Pearson Chi Square Test CI: Confidence Interval,SS: Standard Deviation				

Conclusions: Our findings indicate that ibuprofen provides faster and superior analgesic efficacy compared to dextketoprofen in the pain management of rib fractures.

Keywords: Rib Fracture, Ibuprofen, Dextketoprofen, Pain, VAS (Visual Analog Scale)



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Can the Systemic Inflammatory Index be used as a Mortality Indicator in Patients Diagnosed with Acute Ischemic Stroke in the Emergency Department?

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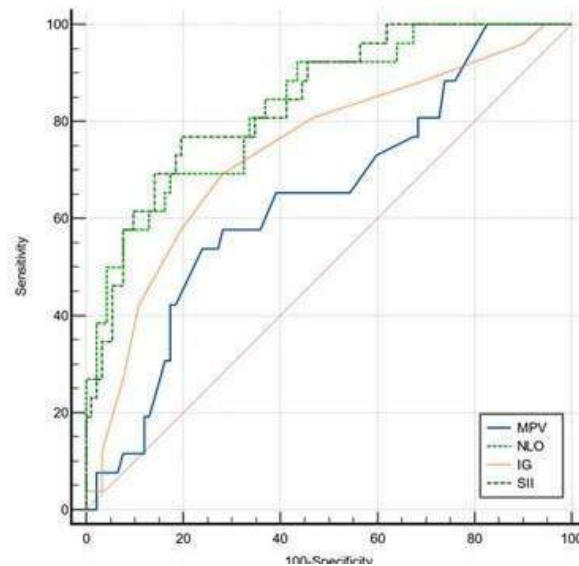
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Background and aim: Our study aimed to examine the relationship between in-hospital mortality, intracranial bleeding complications, and systemic inflammatory index (SII) in patients who visited the ED with acute ischemic stroke.

Methods: Our study was conducted as descriptive, prospective, and single-center. The chi-square test was used to compare categorical data. The normal distribution of continuous variables was evaluated with the Kolmogorov-Smirnov test. Mann-Whitney U test was used to compare continuous variables that did not show normal distribution. ROC analyses of MPV, NLR, IG, and SII values were performed to predict mortality. Did not show normal distribution were evaluated using "Friedman One-Way Repeated Measure Analysis of Variance by Ranks." "The Wilcoxon signed-rank test" was used to analyze the data found to be significant in the Friedman Test. Statistically significant value was accepted as $p < 0.05$.

Results: One hundred thirty patients diagnosed with AIS were included. The mean age was 69.8 ± 12.3 years, and 57% ($n=75$) were male. While 53.8% of the patients were given intravenous tissue plasminogen activator, 46.2% were treated with mechanical thrombectomy. The in-hospital mortality of the patients was 23.1% ($n=30$). It was determined that the ability of MPV, NLR, IG, and SII values to predict mortality was statistically significant (p -value for MPV = 0.038, other p -values = < 0.001). NLR ratio ($AUC=0.818$) had the highest discriminatory ability in predicting mortality. When the NLR ratio was > 7.65 , its sensitivity and specificity in predicting mortality were 70% and 79%. The sensitivity of the SII index ($AUC=0.808$) in predicting mortality was 66.6%, and its specificity was 79% when $> 1641 \times 103/\mu l$.

Comparison of ROC curves of MPV, NLR, IG and SII values on the 3rd day of hospitalization in terms of mortality



ROC Curve Analyses of MPV, NLR, IG and SII values in terms of mortality

	AUC (p value)	Cut-off	Sensitivity (%95 CI)	Spesifity (%95 CI)	LR+	LR-	PPV	NPV
MPV	0,621 (0,038)	>10,7	53,3 34,3- 71,7	74 64,3- 82,3	2,05	0,63	38,1	84,1
NLR	0,818 (<0,001)	>7,65	70 50,6-85,3	79 69,7- 86,5	3,33	0,38	50	89,8
IG	0,739 (<0,001)	>0,5	69,2 48,2-85,7	71,7 61,4- 80,6	2,45	0,43	40,9	89,2
SII	0,808 (<0,001)	>1641	66,6 47,2- 82,7	79 69,7- 86,5	3,17	0,42	48,8	88,8

Conclusions: Our pioneering study highlights the dynamism of MPV, NLR, IG, and SII in AIS over time. The SII index is a good prognostic marker for predicting in-hospital mortality on the third day of hospitalization in acute ischemic stroke patients.

Keywords: Ischemic Stroke, Hospital Mortality, Complications, Inflammation, Neutrophils



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Comparison of The Effect on Survival of Cardiopulmonary Resuscitation Applied with Manual or Mechanical Compression Device

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Background and aim: Since the importance of effective chest compression in survival has been shown, alternative methods to conventional CPR have been developed. Mechanical CPR devices help to perform CPR automatically and effectively. In this study, our aim was to compare the effectiveness of mechanical CPR device and manual CPR in terms of survival in cases of diagnosed prolonged cardiac arrest.

Methods: This thesis study included patients over the age of 18 years who were brought to our emergency department by the rescue medical team as nontraumatic arrest between January 2016 and June 2021, or who were arrested in the emergency department and whose CPR time was longer than 15 minutes. Patients in whom manual compression was started due to cardiac arrest and manual CPR was applied or chest compression was continued with a mechanical CPR device were divided into two groups.

Results: Of the 245 cases included in the study, 161 (65.7%) were male and the mean age was 67.3±17.2 years. Mechanical CPR was performed in 55.5% and manual chest compression in 44.5% of the cases. In-hospital cardiac arrest was present in 76.3% of the patients. While the ROSC was 62.5% in mechanical CPR, it was calculated as 37.5% in manual CPR and it was found to be higher and a significant statistical difference was found ($p < 0.001$). Neurological survival did not differ between groups (based on mRS). In the univariate model, a significant effect of CPR type and CPR duration distribution was observed in separating patients with and without mortality. In the multivariate model, a significant-independent effect of age, CPR type, CPR duration distribution was observed in separating patients with and without mortality ($p < 0.001$, $p < 0.005$ and $p < 0.006$).

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Table 1. Statistical analysis of sociodemographic, clinical, chronic diseases and hematologic parameters between CPR types

	Manuel CPR (n=109) mean±sd / median(25-75)	Mechanical CPR (n=136) mean±sd / median(25-75)	p	
Age	69.0 (53-81)	69.0 (57-83)	0.591	m
Hgb	11.81±2.86	12.02±2.93	0.730	t
Neutrophil	11.3 (7.4-15.5)	9.9 (6.0-14.7)	0.266	m
Lymphocyte	1.5 (0.8-3.3)	1.8 (0.7-4.2)	0.786	m
NLR	6.8 (3.0-14.3)	5.7 (2.0-14.4)	0.405	m
Glucose	176 (121-250)	194 (137-331)	0.092	m
Creatinine	1.5 (1.1-2.9)	1.7 (1.0-2.7)	0.589	m
ALT	29.9 (16-74)	27.0 (17-63)	0.790	m
Lactate	6.2 (2.9-10.9)	5.4 (2.6-10.9)	0.574	m
K+	5.16±1.4	4.86±1.1	0.040	t



Troponin		288 (129-1905)		149 (50-831)		0.089	m
Ph		7.25 (7.1-7.36)		7.24 (7.1-7.35)		0.839	m
PCO ₂		38.3 (29-59)		40.3 (33-52)		0.751	m
BE ⁻		-10.69±8.9		-10.06 ±9.9		0.592	t
HCO ₃		17.9±6.5		17.7±7.2		0.726	t
Duration CPR (Min)		35.42 ± 9.16		37.59 ± 15.74		<0.001	t
First Shockable time (Min)		15.2 ± 12.1		24.2 ± 13.4		0.030	t
Arrest	Out of Hospital	23	21.1%	35	25.7%	0.396	X ²
	In-hospital	86	78.9%	101	74.3%		
Shockable Rhythm	No	96	88.1%	86	63.2%	<0.001	X ²
	Yes	13	11.9%	50	36.8%		
Chronic Diseases	HT(+)	31	37.3%	52	62.7%	0.107	X ²
	DM(+)	26	36.1%	46	63.9%	0.089	X ²
	CAD(+)	46	48.9%	48	51.1%	0.269	X ²
	CHF(+)	28	43.1%	37	56.9%	0.789	X ²
	COPD(+)	11	37.9%	18	62.1%	0.449	X ²
	CRF(+)	23	41.8%	32	58.2%	0.651	X ²
	CVD(+)	18	41.9%	25	58.1%	0.702	X ²
	AF(+)	8	42.1%	11	57.9%	0.828	X ²
	Malignancy (+)	22	40.0%	33	60.0%	0.447	X ²
	ROSC	45	37.5%	75	62.5%	0.031	X ²
Neurological survival at discharge (mRS=0)		4	3.7%	10	7.4%	0.274	X ²
Noncardiac		77	39.1%	120	60.9%	<0.001	X ²
Cardiac		32	66.7%	16	33.3%		

^tIndependent t Test/^m Mann-whitney u test /^{X²} Ki-kare test

HT: Hypertension, DM: Diabetes Mellitus, CAD: Coronary Artery Disease, CHF: Congestive Heart Failure, COPD: Chronic Obstructive Lung Disease, CRF: Chronic renal failure, CVD: Cerebrovascular disease, AF: Atrial fibrillation, ROSC: Return of Spontaneous Circulation, CPR: Cardiopulmonary resuscitation, mRS: modified Rankin Scale

Hgb: Hemoglobin, NLR: Neutrophil Lymphocyte Ratio, ALT: Alanine transferase, K: Potassium, BE: Base Deficit, HCO₃: Bicarbonate

Comparison of The Effect on Survival of Cardiopulmonary Resuscitation Applied with Manual or Mechanical Compression Device

Table 2. Analysis of sociodemographic, haematological and clinical parameters between mortality and survivor groups





		mean±sd / median(25-75)		mean±sd / median(25-75)		p	
Age		56.6±14.7		69.6±17.1		<0.001	t
Hgb		12.8±3.0		11.7±2.8		0.015	t
Neutrophil		12.5±7.1		11.5±7.4		0.305	t
Lymphocyte		3.5 (1.2-6.9)		1.4 (0.7-3.0)		<0.001	m
NLR		3.2 (1.7-7.5)		7.5 (2.6-14.7)		0.005	m
Glucose		198 (134-333)		185 (133-284)		0.578	m
Creatinine		1.2 (0.9-1.7)		1.7 (1.2-3.2)		0.002	m
ALT		44.3 (21-99)		26.8 (16-65)		0.026	m
Lactate		8.1±6.0		7.1±5.4		0.181	t
K+		4.8±1.0		5.0±1.3		0.230	t
Troponin		344 (58-2408)		199 (71-899)		0.553	m
Ph		7.2 (6.96-7.32)		7.2 (7.1-7.35)		0.050	m
PCO ₂		51.7±25.7		45.7±21.8		0.111	t
BE ⁻		-12.02±8.2		-9.98 ±9.7		0.158	t
HCO ₃		17.3±5.9		17.9±7.1		0.524	t
Duration CPR (Min)		30 (20-45)		40 (30-45)		0.006	m
Type of CPR	Manually	10	24.4%	99	48.5%	0.005	X ²
	Mech. Comp. Device	31	75.6%	105	51.5%		
Arrest	Out of Hospital	16	39.0%	42	20.6%	0.011	X ²
	In-hospital	25	61.0%	162	79.4%		
Shockable Rhythm	No	23	56.1%	159	77.9%	0.003	X ²
	Yes	18	43.9%	45	22.1%		
Chronic Diseases	HT(+)	12	29.3%	71	34.8%	0.494	X ²
	DM(+)	12	29.3%	60	29.4%	0.985	X ²
	CAD(+)	21	51.2%	73	35.8%	0.064	X ²
	CHF(+)	10	24.4%	55	27.0%	0.734	X ²
	COPD(+)	5	12.2%	24	11.8%	0.938	X ²
	CRF(+)	5	12.2%	50	24.5%	0.085	X ²
	CVD(+)	5	12.2%	38	18.6%	0.323	X ²
	AF(+)	2	4.9%	17	8.3%	0.450	X ²
	Malignancy (+)	4	9.8%	51	25.0%	0.033	X ²

^tIndependent t Testi/ ^mMann-whitney u test / ^{X²} Ki-kare test

HT: Hypertension, DM: Diabetes Mellitus, CAD: Coronary Artery Disease, CHF: Congestive Heart Failure, COPD:

Chronic Obstructive Lung Disease, CRF: Chronic renal failure, CVD: Cerebrovascular disease, AF: Atrial fibrillation, ROSC: Return of Spontaneous Circulation, CPR: Cardiopulmonary resuscitation



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Analysis of sociodemographic, haematological and clinical parameters between mortality and survivor groups

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Table 3. Univariate and multivariate regression analysis of independent variables for mortality.

	Univariate Model				Multivariate Model					
	Odds Ratio	95% Confidence Interval		p	Odds Ratio	95% Confidence Interval		p		
Age	1.046	1.025	-	1.068	0.000	1.057	1.033	-	1.083	0.001
CPR (manuel)	2.923	1.362	-	6.274	0.006	4.777	1.596	-	14.302	0.005
Duration of CPR (Min)	1.035	1.005	-	1.065	0.022	1.052	1.014	-	1.091	0.006
Lymphocyte	0.785	0.693	-	0.889	0.000	0.835	0.705	-	0.989	0.037
NLR	1.057	1.008	-	1.109	0.023	1.011	0.963	-	1.062	0.664
PH	0.092	0.013	-	0.632	0.015	0.202	0.001	-	27.891	0.525
BE ⁻	0.948	0.906	-	0.991	0.018	1.036	0.923	-	1.164	0.545
Malignancy	3.083	1.048	-	9.072	0.041	3.811	1.102	-	13.177	0.035
Logistic regression (Forward LR), CPR: Cardiopulmonary Resuscitation										

Univariate and multivariate regression analysis of independent variables for mortality.

Conclusions: Decreased muscle strength in prolonged CPR should be supported with a mechanical compression device.

Keywords: Prolonged cardiopulmonary resuscitation, mechanical compression



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Evaluation of the Effects of Mesenchymal Stem Cell Transplantation on Brain, Kidney and Bone Tissue Healing in Experimental Rat Multiple Trauma Model

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Background and aim: Mesenchymal stem cells (MSCs) have shown great potential as a therapeutic approach for tissue injuries, however, research on their use in trauma cases is still limited. To investigate the effects of MSC treatment on tissue healing, we developed a multiple trauma (MT) model in rats by inducing injuries to the brain, kidneys, and bone tissue.

Methods: MSCs were obtained from the femur and tibia bone marrow of four-week-old female rats. 40 Wistar-Albino rats were divided into five main groups (G). Treatment was administered via intravenous (IV) and/or intraventricular (IVC). [G1: MT + IV saline (n=8), G2: MT + IV MSCs (n=8), G3: MT + IV saline + IVC saline (n=8), G4: MT + IV MSCs + IVC MSCs (n=8), G5: Sham (n=8)]. At 24 hours post-trauma, all rats received MSCs or saline, and on the 5th day, half received a booster dose. On day 7th, rats that received a single dose of MSCs or saline were sacrificed. On day 14th, the remaining rats were sacrificed. Blood and tissue samples were then collected for serum analysis of NSE, GFAP, NGAL, IL-18, OC, PLA2, and S100B levels, and histopathological examination.

Results: Histopathological examination of kidney tissues in MSC-treated groups revealed less cell degeneration, necrosis, and hemosiderin accumulation. Bone tissue analysis indicated improved fracture healing in MSC-treated groups. Statistically significant differences were observed in GFAP and osteocalcin levels among groups ($p < 0.05$). When the status of receiving booster treatment was compared with GFAP, osteocalcin, PLA2 and S100B values; a statistically significant relationship was found between receiving and not receiving booster treatment in the polytrauma + IV saline treatment group ($p < 0.05$).

Conclusions: MSC treatment appears to have positive effects on tissue healing post-trauma. However, further research is needed to establish standardized treatment protocols and develop serum biomarkers for monitoring tissue healing.

Keywords: Mesenchymal stem cells, Experimental multiple trauma model, Biomarker



Ref No: 4415
Pub No: S-140

The Relationship Between Intraparenchymal Hemorrhage and QTc Interval

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Background and aim: Intraparenchymal hemorrhage (IPH) often results from severe brain trauma and can significantly impact patient outcomes. This study examines the relationship between QTc interval, measured by electrocardiography (EKG), and mortality in IPH patients. The QTc interval reflects cardiac electrical activity and can be associated with various health conditions.

Methods: The study included 81 patients diagnosed with IPH. Data collected comprised age, hemorrhage volume, Glasgow Coma Scale (GCS) score, and QTc interval. Mortality was assessed one week and one month after admission.

Results: QTc Interval and Mortality One-Week Mortality: A positive correlation was found between QTc interval and one-week mortality (Spearman's Rho $r = 0.457$, $p < 0.001$). This indicates that each millisecond increase in QTc interval may raise short-term mortality risk. One-Month Mortality: No significant relationship was observed between QTc interval and one-month mortality (Spearman's Rho $r = 0.095$, $p = 0.397$), suggesting that QTc changes may not influence long-term mortality. Regression analysis (Table-4) supports the role of QTc interval in predicting one-week mortality. Univariate analysis shows a strong effect of QTc on mortality (HR = 0.279, $p < 0.001$), though this effect is less pronounced in multivariate analysis (HR = 0.000-0.004, $p = 0.025$). This indicates that QTc interval could be an independent prognostic factor, but should be considered alongside other factors.

Conclusions: The findings suggest that QTc interval is a significant indicator of short-term mortality in IPH patients. An increase in QTc interval may indicate higher mortality risk. However, the impact of QTc interval on long-term mortality is less clear and warrants further investigation.

Keywords: Glasgow Coma Score, Intraparenchymal hemorrhage (IPH), QTc interval



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Falls from heights in and around the city of Kars in Turkey.

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Background and aim: Falls and fall-related injuries are important public health problems and need attention. Our aim in this study was to review and present our data on the cases presenting to the Emergency Department of Kars Kafkas University following a fall.

Methods: We included a total of 153 cases that had presented to the emergency service of Kafkas University Faculty of Medicine between January 2012 and December 2023 in the study. The medical charts were reviewed retrospectively. The demographic features of the patients, fall distance, fall type, organs injured, treatment types, and mortality rates were recorded.

Results: There was a total of 153 patients, consisting of 137 males and 16 females, that had fallen from a height in this study. A total of 129 were admitted while 24 were sent home from the emergency service after the treatment was arranged. The mean age was 29+/-11.2 years. The mean height was 6+/-2 meters. The distribution of injuries was 101 with extremity injuries, 6 with thoracic injuries, 10 with intraabdominal injuries, 4 with head injuries and 32 with multiple organ injuries. We had 77 patients with upper extremity injury and 24 with lower extremity injury. The thoracic injuries consisted of 4 cases with pneumothorax and 2 cases with lung contusion. The intraabdominal injuries involved the liver in 2, small intestines in 5, spleen in 3. Once the cases were admitted to the emergency services, the surgical indication was determined according to the physical examination, laboratory tests and radiological imaging results. The mortality rate was 7.65%. There were 13 patients aged over 65 years. The mean inpatient duration was 20.2+/-14.3 days.

Conclusions: Falls from heights need to be evaluated in a multidisciplinary fashion as supported by imaging methods to determine the trauma severity. Taking the necessary measures and increasing the socioeconomic level of the patients will decrease exposure to such trauma.

Keywords: Fall from height, Kars, emergency, multiple organ injuries, extremity injury



Ref No: 4662
Pub No: S-139

The impact of alcohol intoxication on mortality in patients with traumatic intracranial hemorrhage: a retrospective study

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Background and aim: Traumatic brain injury accounts for one-third of deaths related to trauma. The impact of alcohol on mortality in patients with head trauma remains a subject of debate. In this study, we investigated the effect of alcohol intoxication (ETOH) on mortality in patients with traumatic intracranial hemorrhage.

Methods: This retrospective study included patients over 18 years of age who presented to the emergency department (ED) of a hospital with severe trauma-related intracranial hemorrhage between July 1, 2023, and July 1, 2024. Patients with blood alcohol levels above 10 ng/dl were categorized into the ETOH+ group, while those with levels below 10 ng/dl were placed in the ETOH- group. Our primary outcome was mortality, and secondary outcomes included the need for intubation, the need for surgery, and the length of hospital stay.

Results: The study included 101 patients. Among them, 62 (61.4%) had subarachnoid hemorrhage, 30 (29.7%) had subdural hemorrhage, and 9 (8.9%) had epidural hemorrhage. The ETOH+ group consisted of 21 (20.8%) patients, while the ETOH- group included 80 (79.2%) patients. The 24-hour mortality rate for the patients was 5.9% (n=6), and the 30-day mortality rate was 17.8% (n=18). There was no statistically significant difference in mortality between the 24-hour and 30-day rates ($p=0.443$, $p=0.426$). Additionally, there were no statistically significant differences in the need for surgery and intubation between the ETOH+ and ETOH- groups ($p=0.825$, $p=0.976$). However, the length of hospital stay was significantly longer for the ETOH- group compared to the ETOH+ group ($p<0.005$).

Conclusions: In patients presenting to the ED with severe head trauma and traumatic intracranial hemorrhage, there is no significant difference in early mortality, need for surgery, or need for intubation between ETOH+ and ETOH- groups. However, the length of hospital stay is significantly shorter for ETOH+ patients.

Keywords: Intracranial hemorrhage, Ethanol, Mortality



Ref No: 4757
Pub No: S-201

EVALUATING THE NON-INFECTIOUS CAUSES OF HEMOPTYSIS IN PATIENTS PRESENTED TO THE EMERGENCY DEPARTMENT

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Background and aim: Hemoptysis remains a challenging presenting complaint for clinicians due to wide variety of underlying etiologies, differing clinical presentations, and variable prognoses. Our aim is to highlight key aspects that should be emphasized in the management of non-infectious causes of hemoptysis.

Methods: Patients with a diagnosis of hemoptysis based on ICD codes within the last six months (01.09.2023-29.02.2024) were retrospectively analyzed. The inclusion and exclusion criteria are shown in Figure-1. The cases were evaluated based on age, gender, comorbidities, most common causes, medication use, diagnostic and treatment management, hospitalization, and mortality.

Figure 1. Inclusion and Exclusion Criteria

INCLUSION CRITERIA	EXCLUSION CRITERIA
18 years of age or older - Having true hemoptysis	- Pregnancy - Trauma - Hemorrhage other than hemoptysis (mouth, teeth, GIS) - Infectious pathology

Results: In the last six months, 59 patients with non-infectious hemoptysis were included in the study. The mean age was 57.8 years, and 73% were male. The most common causes were lung cancer (50%) and anticoagulant use (22%). Frequent comorbidities included lung cancer (45%) and hypertension (33%). Anticoagulants were used by 28% of patients, with warfarin being the most common (43%), followed by acetylsalicylic acid (36%) and DOACs (21%). Among those using acetylsalicylic acid, 40% were hospitalized, and 33% of warfarin users required inpatient care. Massive hemoptysis occurred in 13% of cases, with lung cancer responsible in 75% and warfarin use in 25%. In total, 79% of patients were hospitalized, and 13% required ICU admission. Half of the ICU cases were due to lung cancer, and the other half were on anticoagulants. Mortality rates were 12% within the first month and 15% within the first three months.

Conclusions: Key factors influencing prognosis and hospitalization include bleeding amount, etiology, and comorbidities. Our study found high hospitalization (79%) and mortality rates (12% at 1 month, 15% at 3 months). Lung cancer caused 75% of massive hemoptysis cases, and anticoagulant use was the primary cause in 93% of cases. Both were associated with all ICU admissions, highlighting their significance as major etiological and prognostic factors.



Keywords: hemoptysis, non-infectious causes, lung cancer, massive hemoptysis, prognosis



Ref No: 4817

Pub No: S-147

Can Bedside Ultrasonography Evaluate the Hemodynamic Effects of Non-Invasive Mechanical Ventilation?

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Background and aim: Non-invasive positive pressure mechanical ventilation (NIMV) can alter hemodynamic status by influencing intrathoracic pressure. We aimed to evaluate the efficacy of bedside carotid Doppler and inferior vena cava (IVC) ultrasonography (USG) in assessing the hemodynamic effects of NIMV.

Methods: This single-center, prospective, non-randomized study included adult patients in the emergency department planned for NIMV. Data collected included vitals, demographics, comorbidities, carotid blood flow (CBF), carotid artery peak systolic velocity variation (ΔV_{peak}), corrected carotid flow time (ccFT), and IVC collapsibility index (IVCCI) measurements. Measurements were taken before and 30 minutes following the initiation of NIMV.

Results: Among the 62 patients included, significant changes were observed in pulse rate, respiratory rate, and oxygen saturation ($p < 0.01$), while systolic blood pressure (SBP) remained unchanged. Ultrasound measurements showed no significant differences. A strong correlation was observed between ΔCBF and ΔSBP (Spearman's ρ : 0.663) (Figure 1). In a subgroup of 16 patients with a 10% reduction in SBP, significant decreases in CBF and ccFT were observed ($p < 0.001$; $p = 0.035$, respectively). The ROC curve analysis demonstrated an AUROC value of 0.815 for ΔCBF , 0.717 for $\Delta ccFT$, 0.596 for ΔV_{peak} change, and 0.546 for $\Delta IVCCI$ in predicting a %10 SBP decrease (Figure 2).

Figure 1. Scatter plot of carotid blood flow and systolic blood pressure changes with the treatment.

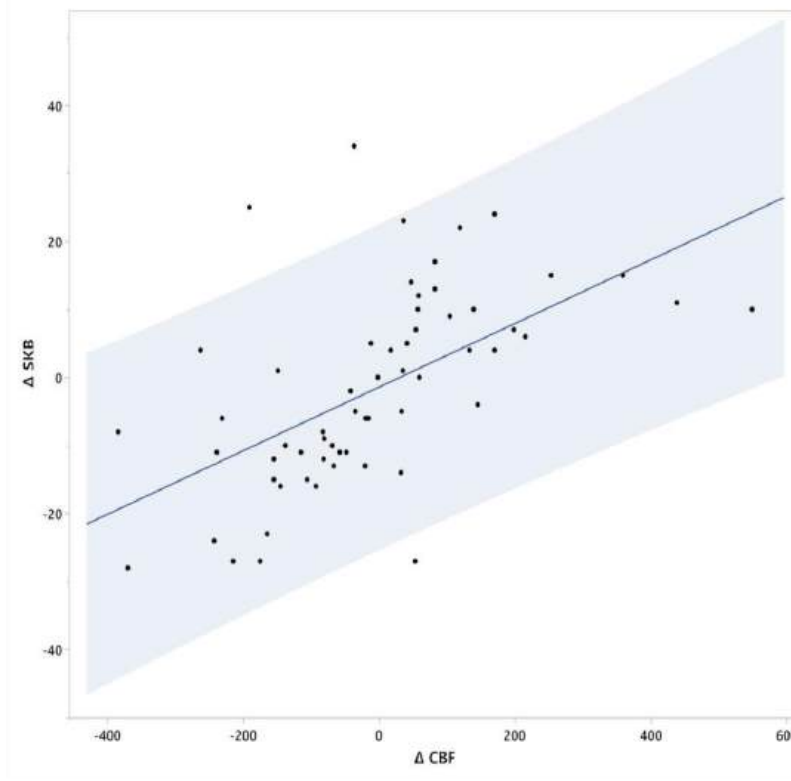
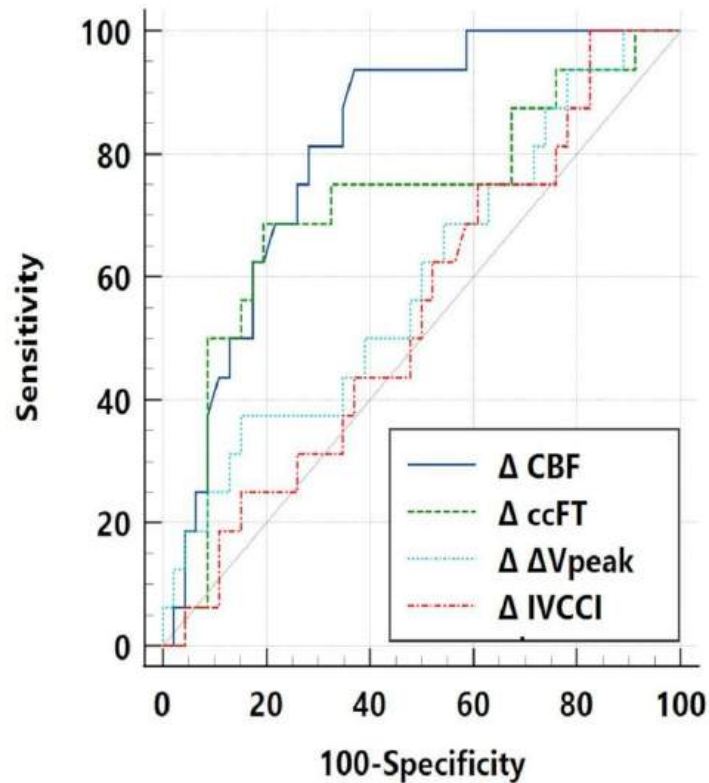


Figure 2. Comparison of ROC curves of changes in ultrasonographic measurements.



Conclusions: No significant differences were found in USG measurements. However, Δ SBP was correlated strongly with Δ CBF and moderately with Δ ccFT. In patients with a 10% decrease in SBP, NIMV impacted the CBF and ccFT, suggesting these parameters are useful for assessing changes in vital signs in patients with SBP alteration.

Keywords: carotid arteries, hemodynamics, noninvasive ventilation, ultrasonography



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Pub No: S-141

A Retrospective Analysis of Patients Diagnosed with Acute Pancreatitis Following Presentation to the Emergency Department with Abdominal Pain

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Background and aim: Acute pancreatitis (AP) is a life-threatening disease caused by a variety of factors, and once it progresses to severe acute pancreatitis (SAP), the prognosis is poor. The purpose of this study was to evaluate the etiology, disease severity of patients diagnosed with AP and to investigate the prognostic value of the Imrie, HAPS, and Ranson's scores for predicting SAP.

Methods: A single-center, cross-sectional, and observational study was retrospectively conducted at the ED of hospital in Muğla, between January 1, 2019, and December 31, 2021. SAP was defined as the persistence of organ failure for more than 48 h. All eligible patients underwent a follow-up evaluation from admission to discharge. The predictive accuracy of the Imrie, HAPS, and Ranson's score was measured.

Results: A total of 418 patients diagnosed with AP (mean age: 61.42±17.72 years; age range: 18-100 years; 55.3% female) were included in the study. The two most common causes of AP were biliary etiology (218 cases, 52.1%) and alcohol consumption (21 cases, 5.02%). Forty-nine patients (11.7%) were classified as SAP. Significant differences were found between the SAP and non-SAP groups in terms of white blood cell count, glucose, creatinine, sodium, potassium, chloride, albumin, and LDH levels. The AUCs for predicting SAP were 0,737 (95% CI 0,700–0,886) for the Imrie score, 0,647 (95% CI 0,814–0,992) for HAPS, and 0,628 (95% CI 0,744–0,928) for the Ranson score. Multivariable logistic regression indicated that an Imrie score ≥ 3 (OR=2,890; %95CI: 0,819–4,967, $p < 0.001$), glucose > 300 mg/dL (OR=1,740; %95 CI: 0,616–2,889; $p = 0,000$), and albumin < 30 g/L (OR=0,890; 95%CI: 0,819–0,967; $p = 0,011$) were independent risk factors for SAP.

Conclusions: The findings of our study indicate that the Imrie score is a valuable predictive tool for assessing the risk of SAP in patients with AP upon admission to the ED.

Keywords: Emergency department, Acute pancreatitis, Severe acute pancreatitis, Imrie score



Ref No: 4869
Pub No: S-215

DETECTION OF ACUTE INTRACRANIAL PATHOLOGIES IN PATIENTS ADMITTED TO EMERGENCY DEPARTMENT WITH HEADACHE

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Background and aim: Headache is one of the symptoms with a wide range of differential diagnosis, which constitutes one of the common causes of presentation to emergency departments. It may be due to many causes such as bleeding, thrombosis, infections, tumors, etc. Approximately 3.8% of patients presenting to emergency departments have a serious cause of headache.

Methods: NEU Faculty of Medicine, Department of Emergency Medicine We retrospectively analyzed the information of the patients who presented with headache complaint and had sufficient file information within a 6-month period. 1530 admissions were detected. 543 admissions underwent non-contrast computed tomography of the brain. 9 admissions had acute cranial pathologies that could be detected on brain CT, while no acute cranial pathologies were detected in the other 534 cases.

Results: The study included 1530 patients. 921 of the patients were female and 609 were male. 543 patients underwent non-contrast brain CT imaging. 280 were female and 263 were male. The mean age of patients presenting with headache was 45.8 years. The mean age of patients undergoing imaging was 48.1 years. The oldest patient presenting with headache was 94 years old and the youngest was 18 years old. The oldest patient was 93 years old and the youngest patient was 18 years old. The number of patients with acute pathology on brain CT imaging was 9. No acute cranial pathology was detected on brain CT imaging in 534 patients. The rate of patients who underwent brain CT imaging was 35.49% and the rate of acute pathology detection in patients who underwent brain CT imaging was 1.65%.

Conclusions: Various imaging and invasive diagnostic methods, especially brain CT, are used to minimize the possibility of missed diagnosis or misdiagnosis. Considering the data we have determined, acute pathology was not detected in the majority of the imaging method performed.

Keywords: HEADACHE, BRAİN CT, ACUTE INTRACRANIAL PATHOLOGIES



Ref No: 4958
Pub No: S-199

The Impact of Initial Antibiotic Dose Timing on 30-Day Mortality in Febrile Neutropenia Patients on Admission to the Emergency Department: Retrospective Clinical Research

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Background and aim: Febrile neutropenia (FN) is defined as an absolute neutrophil count (ANC) of less than $1 \times 10^9/L$ with high fever (1,2). Early antibiotic administration demonstrates to be associated with decreased mortality rates (3,4). The Multinational Association for Supportive Care in Cancer (MASCC) score can be used to risk stratify outpatients with febrile neutropenia (5). We aimed to determine the relationship between the time to administration of the first dose of antibiotics and 30-day mortality in patients with FN in emergency department (ED).

Methods: We conducted a retrospective, observational study including all FN patients presented to the ED between August 1, 2023, and August 1, 2024. Patient demographic information, laboratory results, time to antibiotic administration, the MASCC score and mortality were collected.

Results: A total of 49 patients admitted to the emergency department (ED) with febrile neutropenia (FN) were included in the study. Of these patients, 13 (21%) had died by the end of 30 days. The monocyte counts were significantly lower in the group with mortality compared to the survivors, with a statistically significant difference ($p=0.001$). However, no statistically significant association was observed between the timing of the first antibiotic dose and 30-day mortality. Statistical analysis reveals a substantial difference in discharge, service admission, and intensive care unit admission rates between Survivor and Non-survivor groups ($p=0,014$).

Table 1

	Survivor, N: 47	Non-Survivor, N: 13	p-value
Age, mean (IQR) [min-max], year	69 (18) [27-91]	75 (7) [55-87]	0,036*
Sex, N, (%)			0,043†
Male	28 (%59,6)	12 (%92,3)	
Female	19 (%40,4)	1 (%7,7)	
Comorbid Diseases, N, (%)	40 (%85,1)	9 (%69,2)	0,231†
Hypertension	25 (%53,2)	6 (%46,2)	0,653†
Diyabetes Mellitus	15 (%31,9)	3 (%23,1)	0,736†
Asthma and COPD	6 (%12,8)	1 (%7,7)	0,614†
Chronic Renal Failure	4 (%8,5)	-	0,568†
Coronary Artery Disease	18 (%38,3)	4 (%30,8)	0,715†
Type of Malignancy, N, (%)			0,334†
Solid	27 (%74,4)	10 (%76,9)	
Haematologic	20 (%42,6)	4 (%30,8)	



Duration of Antibiotic Administration to the Patient, , N, (%)			0,618 [‡]
0-1 Hour	3 (%6,4)	2 (%15,4)	
1-2 Hours	4 (%8,5)	2 (%15,4)	
2-3 Hours	9 (%19,1)	2 (%15,4)	
> 3 Hours	31 (%66)	7 (%53,8)	
Antibiotic Given to Patient, N, (%)			
Amoxicillin	5 (%10,6)	-	0,575 [‡]
Ceftriaxone	9 (%19,1)	2 (%15,4)	0,756 [‡]
Piperacillin-Tazobactam	20 (%42,6)	8 (%61,5)	0,225 [‡]
Cefepime	5 (%10,6)	-	0,575 [‡]
Vancomycin	3 (%6,4)	2 (%15,4)	0,295 [‡]
Meropenem	4 (%8,5)	3 (%23,1)	0,166 [‡]
Moxifloxacin	1 (%2,1)	1 (%7,7)	0,389 [‡]
Ciprofloxacin	4 (%8,5)	-	0,568 [‡]
Ertapenem	-	1 (%7,7)	0,217 [‡]
Teicoplanin	5 (%10,6)	3 (%23,1)	0,353 [‡]
Fluconazole	2 (%4,3)	-	0,611 [‡]
ED Final Status, N, (%)			0,014[‡]
Discharged from ED	8 (%17)	-	
Hospitalization	37 (%78,7)	9 (%69,2)	
ICU	2 (%4,3)	4 (%30,8)	

* The Mann-Whitney U test was used; † Chi-square or Fisher's exact test was used; IQR, interquartile range; COPD, chronic obstructive pulmonary disease.

Demographic and Clinical Characteristics of Patients Based on 30 Days Mortality

Table 2

	Survivor, N: 47	Non-Survivor, N: 13	p-value
Hemogram			
Hemoglobin, Mean ± SD (Min-max), 106/μl	9,05 ± 2,03 (4,6-13,2)	9,31 ± 1,95 (5,1-11,6)	0,686 *
Hematocrit, Mean ± SD (Min-max), %	27,09 ± 6,11 (13-40,2)	26,65 ± 5,81 (14,8-34,6)	0,771 *
Leukocyte Count, Median (IQR) [min-max], 10 ³ /μl	0,95 (1,04) [0,05-4,36]	0,47 (0,58) [0,05-1,41]	0,056 †
Neutrophil Count, Median (IQR) [min-max], 10 ³ /μl	0,22 (0,41) [0-0,96]	0,16 (0,47) [0-0,99]	0,560 †
Lymphocyte Count, Median (IQR) [min-max], 10 ³ /μl	0,46 (0,65) [0-2,69]	0,31 (0,3) [0-0,89]	0,116 †
Monocyte Count, Median (IQR) [min-max], 10 ³ /μl	0,08 (0,28) [0-0,78]	0,001 (0,03) [0-0,08]	0,001[†]
Biochemistry			
CRP, Median (IQR) [min-max]	113,09 (163,87) [12,11-478]	193 (247,95) [57,77-407,52]	0,112 †
Blood Glucose, Median (IQR) [min-max], mg/dL	128 (65) [86-316]	161 (91) [89-364]	0,222 †
Procalcitonin, Median (IQR) [min-max]	1,85 (8,09) [0-41,7]	2,67 (9,28) [0,01-66,86]	0,964 †



MASCC Score, Mean $\pm$ SD (Min-maks) 18,28 $\pm$ 5,05 (4-24) 15,31 $\pm$ 4,39 (7-22) 0,059*

* Independent sample t-test was used; † Mann-Whitney U test was used; ‡ Chi-square test was used; CRP, C-Reactive Protein; MASCC, Multinational Association for Supportive Care in Cancer.

Laboratory Parameters and MASCC Score Associated with Survivor and Non-Survivor Patients

Table 3



	ICU, N: 6	Hospitalization, N: 46	Discharged from ED, N: 8	p-value
Age , mean (IQR) [min-max], year	69 (15) [55-77]	71 (19) [27-91]	72,5 (16) [37-83]	0,864*
Sex , N, (%)				0,556†
Male	4 (%66,7)	32 (%69,6)	4 (%50)	
Female	2 (%33,3)	14 (%30,4)	4 (%50)	
Comorbid Diseases , N, (%)	5 (%83,3)	38 (%82,6)	6 (%75)	0,871†
Hypertension	1 (%16,7)	27 (%58,7)	3 (%37,5)	0,124†
Diabetes Mellitus	4 (%66,7)	13 (%28,3)	1 (%12,5)	0,098†
Asthma and COPD	1 (%16,7)	6 (%13)	-	0,636†
Cronic Renal Failure	1 (%16,7)	2 (%4,3)	1 (%12,5)	0,230†
Coronary Artery Disease	-	19 (%41,3)	3 (%37,5)	0,136†
Malignancy Type N, (%)				0,111†
Solid	6 (%100)	26 (%56,5)	5 (%62,5)	
Haematologic	-	21 (%45,7)	3 (%37,5)	
Duration of Antibiotic Administration to the Patient , N, (%)				0,113†
0-1 hour	2 (%33,3)	3 (%6,5)	-	
1-2 hours	1 (%16,7)	5 (%10,9)	-	
2-3 hours	1 (%16,7)	10 (%21,7)	-	
> 3 hours	2 (%33,3)	28 (%60,9)	8 (%100)	
Antibiotic Given to Patient , N, (%)				
Amoxicillin	2 (%33,3)	7 (%15,2)	2 (%25)	0,487†
Ceftriaxone	2 (%33,3)	26 (%56,5)	-	0,005†
Piperacillin-Tazobactam	1 (%16,7)	4 (%8,7)	-	0,527†
Cefepime	1 (%16,7)	3 (%6,5)	1 (%12,5)	0,630†
Vancomycin	2 (%33,3)	5 (%10,9)	-	0,148†
Meropenem	1 (%16,7)	-	1 (%12,5)	0,051†
Moxifloxacin	-	1 (%2,2)	-	0,857†
Ciprofloxacin	1 (%16,7)	7 (%15,2)	-	0,489†
Ertapenem	-	2 (%4,3)	-	0,730†
Ornidazole	-	1 (%2,2)	1 (%12,5)	0,289†
Voriconazole	-	1 (%2,2)	-	0,857†
Hemogram				
Hemoglobin, Mean ± SD (Min-max), 106/μl	8,83 ± 2,54 (4,6-11,6)	9,07 ± 1,98 (4,8-12,8)	9,51 ± 1,94 (6,9-13,2)	0,579‡
Hematocrit, Mean ± SD (Min-max), %	26 ± 7,69 (13-34,6)	27,05 ± 5,87 (14-37,6)	29,05 ± 5,9 (20,8-40,2)	0,416‡
Leukocyte Count, Median (IQR) [min-max], 10 ³ /μl	0,36 (0,87) [0,05-1,41]	0,73 (0,91) [0,05-3,97]	1,55 (0,25) [0,75-4,36]	0,002*
Neutrophil Count, Median (IQR) [min-max], 10 ³ /μl	0,18 (0,42) [0-0,49]	0,2 (0,35) [0-0,99]	0,4 (0,5) [0,07-0,96]	0,369*



Lymphocyte Count, Median (IQR) [min-max], 10 ³ /μl	0,28 (0,48) [0-0,89]	0,35 (0,46) [0-2,69]	0,9 (0,72) [0,43-2,55]	0,005*
Monocyte Count, Median (IQR) [min-max], 10 ³ /μl	0 (0,03) [0,09]	0,06 (0,15) [0-0,62]	0,21 (0,39) [0,07-0,78]	0,002*
Biochemistry				
CRP, Median (IQR) [min-max]	218,47 (270,44) [57,77-424,78]	119,33 (178,92) [12,11-478]	30,56 (109,37) [12,17-221,55]	n.n.a*
Glucose, Median (IQR) [min-max], mg/dL	161 (89) [89-196]	129 (67) [86-364]	112,5 (70) [98-228]	0,533*
Procalcitonin, Median (IQR) [min-max]	8,4 [0,01-16,78]	2 (6,15) [0,01-66,86]	-	0,231*
MASCC Score, Mean ± SD (Min-maks)				
	11,83 ± 5,08 (4-16)	17,63 ± 4,68 (7-24)	22 ± 1,85 (18-24)	<0,001§

* The Mann-Whitney U test has been used; † Chi-square or Fisher's exact test has been used; ‡ Independent samples t-test has been used; § One-way ANOVA test has been used; CRP, C-Reactive Protein; MASCC, Multinational Association for Supportive Care in Cancer

Demographic and Clinical Characteristics of Patients' Based on ED Final Status

Conclusions: The timing of initial antibiotic administration did not correlate with 30-day mortality in patients with FN. Nevertheless the assessment of 30-day mortality in FN patients may be associated with the monocyte count determined at the time of their presentation to the ED.

Keywords: febrile neutropenia, anti-bacterial agents, chemotherapy complications, emergency medicine



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Pub No: S-171

The role of perfusion indices in the clinical management of carbon monoxide poisoning

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Background and aim: Carbon monoxide (CO) poisoning impairs tissue perfusion through the formation of carboxyhemoglobin (COHb), disrupting oxygen transport. Traditional assessments using COHb levels alone often do not adequately predict clinical outcomes. Perfusion index (PI) and plethysmographic variability index (PVI) offer non-invasive, continuous monitoring of peripheral perfusion, potentially improving patient management. This study aims to evaluate these indices in guiding treatment and assessing efficacy in CO poisoning cases.

Methods: All patients aged 18 years and older, diagnosed with CO poisoning were consecutively enrolled in this prospective observational study between January 2019-May 2023. Patients with conditions affecting perfusion measurement and pregnant women were excluded. Perfusion indices and COHb levels were measured at diagnosis and after 60-min hyperbaric or normobaric oxygen therapy (HBOT or NBOT).

Results: The study included 144 patients; 38.9% received HBOT. PI-1 showed significant moderate negative correlation with COHb-1 levels in all patients and AUC value of PI-1 in predicting the necessity for HBOT was 0.935. Patients requiring HBOT had significantly lower PI-1 ($p<0.001$) and higher COHb-1, lactate-1, and PVI-1 values compared to those receiving NBOT ($p<0.001$, $p=0.002$, and $p=0.002$, respectively). After treatment, PI increased, and PVI, lactate, and COHb levels decreased significantly in both treatment groups ($p<0.001$ for all). In patients requiring HBOT, only the perfusion indices demonstrated a significant moderate correlation with Δ COHb in the post-treatment changes ($p<0.001$ for both, $r=-0.550$ for Δ PI and $r=0.519$ for Δ PVI). Δ PI was the only parameter that correlated with Δ COHb in both treatment groups ($p=0.003$, $r=-0.313$ for NBOT; $p<0.001$, $r=-0.550$ for HBOT).

Conclusions: Perfusion indices, especially PI, may be superior to lactate in reflecting changes in COHb levels and contribute to the clinician in determining severity of disease, selecting appropriate therapy and evaluating effectiveness of treatment in CO poisoning.

Keywords: carbon monoxide poisoning, perfusion index, pleth variability index, carboxyhemoglobin, lactate



Ref No: 5190
Pub No: S-160

Effectiveness and Safety of Intradermal Sterile Water Injection for Pain Management in Renal Colic: A pilot study

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Background and aim: We investigated the onset time and duration of the analgesic effect of intradermal sterile water injection (ISWI) in the management of pain among adult patients presenting to the emergency department (ED) with renal colic. Also, we evaluated the clinical characteristics of cases in which ISWI didn't achieve sufficient pain relief.

Methods: This prospective and single-center study included 46 consecutive patients admitted to the ED with renal colic who received ISWI between 03.2024 and 08.2024. We assessed pain using a 10 point visual analog scale (VAS; 0=no pain; 10=worst possible pain) before treatment and 15-30-60 min after treatment. Additionally, patient demographics, onset time and duration of the analgesic effect of ISWI, radiological findings, stone size, stone localization, and adverse events were evaluated. We compared the demographic and clinical characteristics of patients for whom ISWI treatment was successful with those for whom it wasn't.

Results: A total of 46 adults, comprising 34 (73.9%) males and 12 (26.1%) females, were included in this study, with a mean age of 39.41 ± 11.52 years. The initial VAS score for the pain of patients was 8.72 ± 1.17 . The VAS scores recorded at 15-30-60 min post-treatment were 3.59 ± 2.88 , 3.38 ± 2.93 , and 2.57 ± 2.87 , respectively. The mean time to pain cessation following ISWI was 8.66 ± 15.53 minutes, and patients didn't require additional analgesics for an average of 215.55 ± 15.53 minutes. Adequate pain control wasn't achieved in 18 patients (39.1%), necessitating rescue treatment. Among these 18 patients, 5 (27.8%) had stones larger than 6mm, 6 (33.3%) had stones smaller than 6mm, and 7 (38.9%) had stones measuring 3-6mm. Of the patients requiring rescue treatment, 14 (77.8%) had stones located in the ureter. Only one patient (2.2%) reported nausea.

Conclusions: Our findings indicated that ISWI is an effective and well-tolerated method for pain management. The majority of patients experienced significant pain relief within 8 minutes of treatment, and the analgesic effect lasted for several hours without the need for additional painkillers.

Keywords: renal colic, Intradermal Sterile Water Injection



Ref No: 5425
Pub No: S-214

EVALUATION OF THE EFFECT OF WELLNESS ACTIVITIES APPLIED BY EMERGENCY MEDICAL ASSISTANTS ON BURNOUT LEVEL AND JOB SATISFACTION

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Background and aim: Protecting the personal health of physicians is as important as protecting public health. In this study, the personal well-being of resident physicians was evaluated and its effects on burnout and job satisfaction were investigated.

Methods: It was planned as a single-center, cross-sectional, survey study. In the first stage, a form was used that provided personal well-being assessment and the questions were determined by the researchers. In the second stage, the Maslach Burnout Scale and in the third stage, the Job Satisfaction Scale were used.

Results: A total of 124 resident physicians participated in the study. 76.6% thought they were experiencing burnout, and 46.8% took action to combat it. Most residents rated their well-being as moderate. 79.8% stated that they were satisfied with the emergency department. The resignation rate of those who were satisfied with the emergency department was found to be significantly lower than those who were not. 83.9% of the residents stated that their income was insufficient, 93.5% had irregular diets, 62.9% did not exercise regularly, 79.8% had sleep problems, and 87.9% were exposed to physical/verbal violence. It was observed that those who thought their income was insufficient, had irregular diets, did not exercise regularly, had sleep problems, and were exposed to violence had low professional satisfaction and high emotional exhaustion.

Evaluation of Participants' Professional Satisfaction

Tablo 2. Katılımcıların Mesleki Memnuniyetlerinin Değerlendirilmesi	
Parametreler (n=124)	n(%)*
Acil Tıp Branşından Memnun Olma Durumu	
Evet	99 (79.8)
Hayır	25 (20.2)

Evaluation of Participants' Resignation Thoughts According to Their Satisfaction with the Emergency Medicine Branch

İstifa Etmeyi Düşünme Durumu		
Evet	Hayır	p



Acil Tıp Branşından Memnun Olma Durumu			
Evet	58 (58.6)	41 (41.4)	0.012 ¹
Hayır	22 (88.0)	3 (6.8)	
*:Sadır yüzdesi			
¹ Ki kare test			

Evaluation of Participants' Financial Characteristics

Parametreler (n=124)	n(%)*
Gelirinin Yeterli Olduğunu Düşünme Durumu	
Evet	20 (16.1)
Hayır	104 (83.9)
Asistanlık Sürecinde Geleceğe Yönelik Yatırım Planı Yapma Durumu	
Evet	63 (50.8)
Hayır	61 (49.2)
*:Sütun yüzdesi	

Conclusions: Our study evaluated the well-being of resident doctors and examined the levels of affecting job satisfaction and burnout. Their professional satisfaction was at a moderate level, emotional exhaustion and depersonalization were high, and personal accomplishment deficiency was high. It was observed that those with sleep problems, those who did not exercise regularly, those who received psychological support, those who were subjected to violence, those who thought they were subjected to mobbing, and those who thought they were experiencing burnout had low professional satisfaction and high burnout levels.

Keywords: emergency medicine, burnout, wellness



Ref No: 5526

Pub No: S-149

Usability of artificial neural networks in mortality prediction of patients diagnosed with sepsis after emergency department admission

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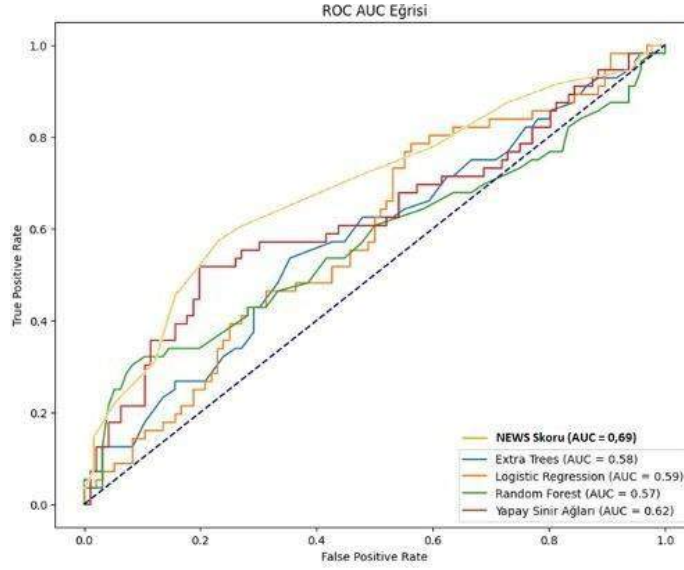
Hüseyin Cahit Halhallı / Kocaeli City Hospital

Background and aim: Objective: Sepsis, characterized by widespread inflammation and organ dysfunction caused by various microorganisms, refers to a serious condition resulting from a dysregulated host response to infection that rapidly develops, leading to organ failure. Predicting the mortality of sepsis is as important as diagnosing it. The aim of this study is to determine the usability of artificial neural networks in predicting the mortality of patients diagnosed with sepsis after presenting to the emergency department.

Methods: Material and Methods: The study was designed as a prospective, cross-sectional cohort study. Patients included retrospectively were used for the training phase of artificial neural networks learning. Subsequently, the model was tested with patients included prospectively. The performance of the artificial neural networks model was compared with machine learning models and the NEWS score.

Results: Results: The artificial neural networks model demonstrated superior performance compared to machine learning models. The accuracy of the artificial neural networks model was determined to be 0.632, followed by the Random Forest model at 0.618. Among the parameters used, the most influential on the outcome were respiratory rate, lactate level, and bicarbonate level. The NEWS score, a traditional mortality prediction tool, performed better than the artificial neural networks model.

ACU-ROC curves of models and NEWS Score ACU-ROC curve



Şekil 8: Modellerin AUC-ROC eğrileri ve NEWS Skoru AUC-ROC eğrisi.

Conclusions: Conclusion: The artificial neural networks model developed in our study did not perform sufficiently well to be used for mortality prediction in sepsis patients. The accuracy of mortality prediction may improve with machine learning models involving a larger patient population, and these models may outperform traditional mortality prediction tools.

Keywords: Sepsis, machine learning, artificial neural network, mortality



Ref No: 5567
Pub No: S-221

EVALUATION OF THE EFFECT OF D-DIMER/TROPONIN RATIO AND ALVEOLO-ARTERIAL GRADIENT ON PROGNOSIS IN PATIENTS DIAGNOSIS OF PULMONARY EMBOLISM IN THE EMERGENCY DEPARTMENT

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Background and aim: We aimed to evaluate prognosis determinants in pulmonary embolism patients focusing on especially D-dimer/troponin ratio and alveolar to arterial oxygen gradient, moreover, to examine including age, gender, hemodynamic parameters, inflammatory parameters, scoring systems, electrographic findings and computered tomography findings.

Methods: Patients diagnosed with acute Pulmonary Embolism who applied to the Health Sciences University Şişli Hamidiye Etfal Training and Research Hospital Emergency Department between 01 January 2019 and 01 January 2023 were included.

Results: The total number of patients included in the study was 359, of which 54.3% were female. The mean age of the patients in our study was 66.9±16.3. The age, heart rate, respiratory rate, Neutrophil-to-Lymphocyte Ratio, Atrial Fibrillation Rate, lactate, D-dimer and mean Pulmonary Artery Pressure of the patients in the group with mortality was significantly higher than the group without mortality. Systolic blood pressure and diastolic blood pressure were notably lower in the mortality group than the without mortality group. In the multivariate regression analysis, age, diastolic blood pressure, respiratory rate, Neutrophil-to-Lymphocyte Ratio, Pulmonary Embolism Severity Index and Pulmonary Artery Pressure values' significant-independent effectiveness was observed.

Conclusions: Age, vital parameters, laboratory features and scoring systems such as Pulmonary Embolism Severity Index and Shock Index have important value while evaluating Pulmonary Embolism patients' risk profiles.

Keywords: Mortality, Pulmonary embolism, Shock Index, D-dimer



Ref No: 5751
Pub No: S-189

Cross-sectional analysis of patients with successful resuscitation in cardiopulmonary arrest (ROSC): a retrospective, observational descriptive study

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Background and aim: This study aimed to identify factors that influence in-hospital clinical outcomes (mortality or discharge) in cases of spontaneous circulatory cardiopulmonary arrest (ROSC) in the emergency department.

Methods: Cardiopulmonary arrest patients aged ≥ 18 years who were admitted to the ED of the hospital between 01.06.2022 and 01.06.2024 and underwent cardiopulmonary resuscitation with ROSC were included in the study. Physical patient record files kept in the emergency department and electronic archives were retrospectively analyzed. Age, sex, possible causes of arrest, first arrest rhythm, and in-hospital mortality rates were retrospectively analyzed. Frequency, percentage, Chi-square, or Fisher's exact test was used for categorical variables in the statistical analysis.

Results: A total of 178 patients with ROSC were identified. Fifty-five patients were excluded from the study. Consequently, data from 123 patients were analyzed, showing VF/nVT as the initial arrest rhythm in 28.5% (n=35), asystole in 44.7% (n=55), and NEA in 26.8% (n=33). Cardiopulmonary arrest was caused by cardiac arrest in 27.6% (n=34), non-cardiac arrest in 69.1% (n=85), and trauma in 3.3% (n=4). CPR lasted less than 30 minutes in 36.6% (n=44) and over 30 minutes in 63.4% (n=78) of patients, with ROSC achieved. In-hospital mortality rate after ROSC was 89.4% (n=110), and the discharge rate with or without neurological sequelae was 10.6% (n=13). No significant difference was found between the cause of cardiac arrest and the first arrest rhythm or CPR duration (<30 min and >30 min) ($p=0.225$ and $p=0.916$, respectively). There was no significant sex difference in first-arrest rhythms ($p=0.312$) or correlation between in-hospital mortality and CPR duration ($p=0.13$). Patients with VF/nVT as the initial arrest rhythm had significantly higher discharge rates than those with asystole or PEA ($p=0.031$).

Table 1. Demographic and clinical outcomes of the patients

Factors	Total n = 123
Age, years, mean $\pm$ SD	72.46 $\pm$ 10.81
Sex, n (%)	
Male	72 (58.5)
Female	51 (41.5)
First arrest rhythm, n (%)	
VF/Nvt	35 (28.5)
Asystole	55 (44.7)
PEA	33 (26.8)
Causes of arrest	
Cardiac	34 (27.6)
Non-cardiac	85 (69.1)



Traumatic	4 (3.3)
CPR duration, time	
<30 min	44 (36.6)
>30 min	78 (63.4)
Mortality	110 (89.4)
Discharge	13 (10.6)

Table 2. Effects of cardiac arrest rhythms and CPR durations on in-hospital outcomes

Factors	CPR time			
Mortality	< 30 min	> 30 min		P-value
Yes, n (expected)	43 (40.2)	67 (69.8)		0.13*
	First arrest rhythm			
Discharge	VF/Nvt	Asystole	PEA	0.031*
Yes , n (expected)	8 (3.7)	3 (5.8)	2 (3.5)	

Conclusions: Although asystole was the most common initial arrest rhythm in patients with ROSC, the best clinical outcome (hospital discharge) was ventricular fibrillation/nonpulseless ventricular tachycardia rhythms.

Keywords: cardiopulmonary resuscitation, ROSC, first rhythm, mortality, discharge



Ref No: 5802

Pub No: S-150

Comparison of the effectiveness of clinical scoring systems in predicting 30-day mortality in patients presenting to the emergency department with acute heart failure: A prospective observational study

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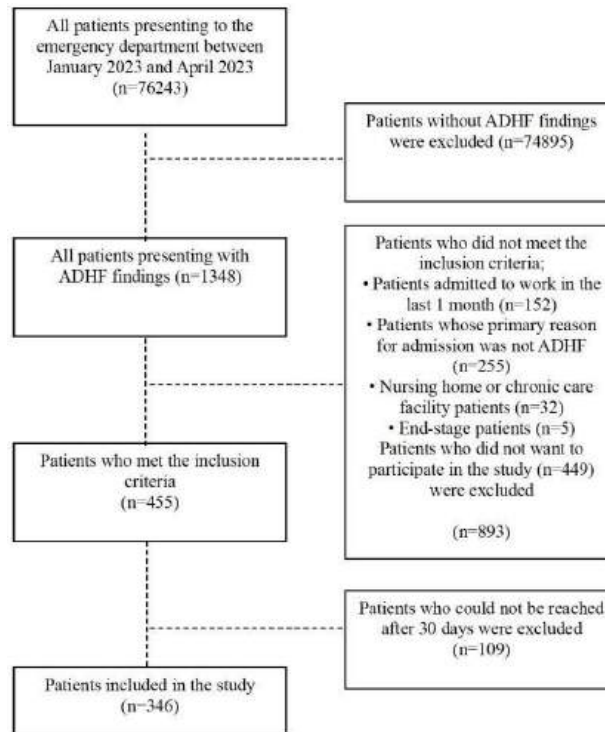
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Background and aim: Introduction Patients discharged from the emergency department (ED) with acute decompensated heart failure (ADHF) have high mortality rates. Clinical judgment alone is not successful in making discharge decisions. Therefore, scoring systems like Emergency Heart Failure Mortality Risk Grade (EHMRG) and Ottawa Heart Failure Risk Score (OHFRS) have been developed. Our study aims to evaluate the superiority of EHMRG and OHFRS scores in predicting 30-day mortality.

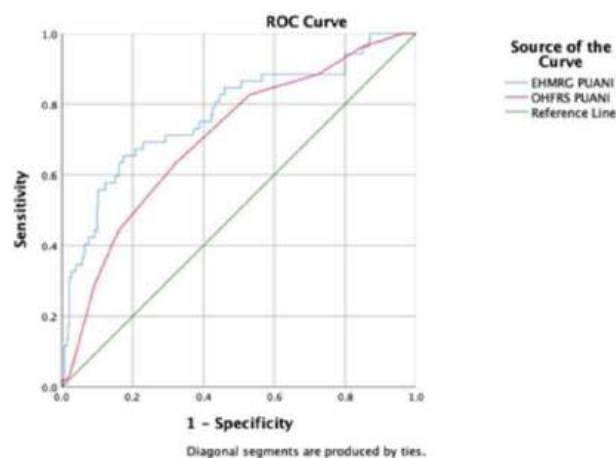
Methods: Methods This study is a single-center, observational, prospective study. EHMRG and OHFRS scores were calculated for patients who presented to the ED for ADHF. Patients included in the study were compared in terms of outcomes within 30 days of their initial presentation, including death, re-admission to the emergency department, or admission to the medical ward or intensive care unit (ICU). The performance of both scores to predict mortality was evaluated with ROC analysis.

Results: Results A total of 1348 patients who presented with ADHF were evaluated, and 346 patients were included in the study. Both EHMRG and OHFRS scores were found to be statistically significant in predicting 30-day Mortality. No superiority was observed between them. There was no significant difference in terms of hospital admissions. In predicting medical ward admissions, the EHMRG score was superior, while the OHFRS score was superior in predicting ICU admissions. Neither scoring system was statistically significant in predicting re-admissions to the ED within 30 days.

Flowchart of study Design



ROC analysis to evaluate the success of EHMrg and OHFRS scores in predicting 30-day mortality





Conclusions: ConclusionThe results of this study demonstrate that both OHFRS and EHMRG scores can be confidently used to predict mortality, predict ICU admissions, and ensure safe discharge for patients presenting to the ED with ADHF. However, both scores were inadequate in predicting ED re-admissions.

Keywords: Acute decompensated heart failure, emergency department, EHMRG score, OHFRS score



Ref No: 5804
Pub No: S-183

Can pleth variability index (PVI) values measured in patients presenting to the emergency department with COPD exacerbation predict clinical severity?

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Background and aim: This study aims to investigate the role of Pleth Variability Index (PVI) in predicting the severity, clinical course, and prognosis of Chronic Obstructive Pulmonary Disease (COPD) exacerbations.

Methods: This prospective study was conducted between May 2023 and May 2024 with patients over 18 years old who were known to have COPD and presented to the emergency department with symptoms of COPD exacerbation. The PVI values measured at the time of admission and after treatment were compared in terms of the severity of COPD exacerbations, the need for hospitalization, and the development of mortality, according to current guidelines.

Results: 131 patients were included in the study. The median triage PVI value of the patients was 42% (14-99). The median triage PVI value was 50% (31-99) for patients presenting with severe exacerbation, 36% (14-69) for those with moderate exacerbation, and 24% (14-45) for those with mild exacerbation, with a significant difference between the groups ($p < 0.001$). The median post-treatment PVI value was 27% (8-68), which was significantly lower than the triage PVI value ($p < 0.001$). A PVI value above 40% had a sensitivity of 86.44% and specificity of 75% for predicting severe exacerbation (AUC: 0.828; CI: 0.753-0.889; $p < 0.001$). The median PVI value was 55% (30-99) for patients who died, compared to 38.5% (14-77) for those who survived ($p < 0.001$). A PVI value above 40% had a sensitivity of 94.12% and specificity of 53.51% for predicting mortality (AUC: 0.774; CI: 0.692-0.842; $p < 0.001$).

Conclusions: The PVI value is a useful parameter for determining the severity of COPD exacerbations and for predicting the prognosis of the disease.

Keywords: COPD exacerbation, PVI, emergency department, prognosis



Ref No: 5953
Pub No: S-154

How can we increase treatment compliance in patients whose urine cultures are taken in the emergency department?

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Background and aim: Urinary tract infections (UTIs) are common bacterial infections that can lead to serious complications across all age groups. This study aims to evaluate the follow-up processes of patients who presented to the emergency department (ED) with UTI and were planned for outpatient follow-up.

Methods: In this prospective, randomized comparative cohort study, patients presenting to the ED with UTI symptoms and planned for outpatient follow-up were randomly assigned to return to the ED or to see an infectious diseases specialist for a follow-up three days later. The patients' symptoms at presentation, laboratory results, and demographic characteristics were recorded by ED physicians on a data collection file. The compliance with the referral, symptom resolution within one week post-presentation, and hospital re-admissions with the same symptoms within one month were tracked by the study team.

Results: A total of 318 patients were analyzed after excluding those lost to follow-up. The mean age of the patients was 46.4±19.9 years, with 83.3% being female. Hypertension (19.8%) and diabetes mellitus (16.0%) were the most common comorbidities. At presentation, 8.5% of the patients had fever. Laboratory findings showed leukocyte esterase positivity in 78.9% and nitrite positivity in 23.6% of the patients. The rate of patients attending follow-up appointments on the third day was 9.7%, with male patients showing higher rates of unresolved symptoms and re-admissions (p=0.016 and p=0.023, respectively).

Conclusions: In this study, only 10% of patients complied with the referral to the follow-up unit. Treatment compliance were not significantly different whether patients were referred to the ED or an outpatient clinic. Very few patients who had urine cultures taken in the ED and were followed up on an outpatient basis had follow-up based on culture results. These findings indicate that a more structured approach is necessary for the effective follow-up of UTI patients.

Keywords: urinary tract infection, urine culture, emergency department, infectious diseases



Ref No: 6131
Pub No: S-163

Evaluation of survey and outcome of patients with severe acidosis in the emergency department: A retrospective cohort study

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Background and aim: We aimed to evaluate the outcome of patients with severe acidosis admitted to the emergency department (ED) and to analyze the relationship between in hospital mortality and clinical factors.

Methods: Patients with severe acidosis ($\text{pH} < 7.1$) presenting to the ED were included in the study. They were classified as neurologic, cardiac, metabolic, septic, bleeding/trauma, respiratory or unknown/other according to the pre-diagnosis. Patients were divided into cardiac arrest and non-arrest groups and analyzed according to these groups and outcomes.

Results: The study included 540 patients with severe acidosis. The median age of the patients was 69 years and 71.5% were admitted due to cardiac arrest. The 30-day mortality rate was 74.8% in all patients. When 30-day mortality rates were compared between surviving and deceased patients, it was observed that deceased patients were older and had hypertension (HT) and coronary artery disease (CAD) more frequently, whereas diabetes (DM) was more frequent in the surviving group. Deceased patients were more acidotic and had higher pCO_2 , lactate, INR, creatin and potassium values. (table 1) The 30-day mortality rate was 21.4% in non-arrested patients. Similarly, it was observed that the majority of the patients who died were male and older age, HT and CAD were more common. When the diagnoses of the patients were analyzed, the mortality rate was higher in patients with sepsis, metabolic and isolated respiratory arrest, while the mortality rate was lower in patients with neurologic causes, DCA and seizures

Conclusions: In this retrospective cohort study, most of the etiology of severe acidosis detected in the ED is cardiac arrest and mortality rates are high. Although the probability of survey of patients with severe acidosis in the ED is low, early recognition and management of factors affecting mortality, especially in patients with acidosis due to reversible causes, may contribute to the prognosis of patients.

Keywords: severe acidosis, emergency department, mortality



Ref No: 6294
Pub No: S-131

ANALYSIS OF ADULT TRAUMA PATIENTS TRANSPORTED FROM THE FIELD BY HELICOPTER AMBULANCE

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Background and aim: Trauma patients who meet "high risk" criteria in field triage should be directed to the highest-level trauma center in the area, with air medical services also available. Under-triage in the field has a negative impact on patient outcomes, while over-triage significantly impacts system resources and patient and provider safety. New protocols are needed for helicopter ambulance assignments in field triage.

Methods: This study was conducted retrospectively on adult trauma patients transported from the scene by helicopter ambulance between 01.10.2021-01.06.2024. The data of the patients included in the study were obtained from the Ministry of Health Emergency Health Automation System. The transportation time of helicopter ambulances to the scene and the time to transport the patient to the hospital were calculated. It was investigated how helicopter ambulances could be used more efficiently for cost-effective and patient benefit purposes.

Results: 195 patients were included in the study. The average age of the patients was 51.19 ± 18.72 . 68.6% of the patients were male. 80.4%(n=156) of the injuries were blunt trauma. The most common reason for admission was falling(43.8%). The most frequently injured area was the extremities in 73.7%(n=143). 8.8%(n=17) had multitrauma. The average time for helicopter ambulances to arrive at the scene was calculated as 27.42 ± 9.23 minutes, the average time for transporting the patient to the hospital was 20.30 ± 7.58 minutes, and the total time from the call to the end of the mission was calculated as 64.63 ± 15.42 minutes. 47(24.2%) of the patients needed urgent surgery and 39 of them benefited from the surgery.

Conclusions: Helicopter ambulance minimizes time loss in transporting trauma patients, but its cost is high. In the decision to transfer by helicopter ambulance, health officials' evaluation together with expert teams via teleconference will reduce field triage, reduce costs and determine the right transportation method for the right patient.

Keywords: field triage, helicopter ambulance, transport, trauma



Ref No: 6315
Pub No: S-133

Evaluation of the effects of concomitant alcohol positivity on the characteristics and severity of injury in geriatric trauma patients

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Background and aim: This study aimed to evaluate whether concomitant alcohol positivity is an effective factor in trauma characteristics and trauma severity in geriatric trauma patients in the emergency department (ED) and evaluate the relationship with poor composite outcomes in alcoholic patients.

Methods: The study has a retrospective design. Patients aged 60 and over who presented to the ED due to trauma and whose blood ethanol level was studied were included in the study. In the study, ethanol levels above 0.5 mg/dl were considered ethanol-positive. Patients were assigned to the poor composite outcome group according to the ICU stay, need for emergency blood transfusion/operation, or in-hospital mortality.

Results: 336 patients were included in the study. There were 101 patients with an ethanol level of >0.5 mg/dl. According to the comparison of ethanol-positive and negative patients, most of the alcoholic patients were male and single. Ethanol-positive patients had more head trauma, and their ISS scores and liver function tests were higher ($p < 0.05$ for all values). 11.3% ($n=11.3$) of all patients and 15.8% ($n=16$) of ethanol-positive patients developed poor composite outcomes. When ethanol-positive patients were compared according to the poor composite outcome, it was observed that patients had more diabetes, more trauma to the head, abdomen, and extremities, higher creatine levels, and lower albumin and blood ethanol levels ($p < 0.05$ for all values).

table 1

Gender, n (%)	33 (9.8%)
Female	
Age, median (IQR 25-75)	64 (62-68)
Marital status, n (%)	256 (76.2%)
Married	80 (23.8%)
Single	
Day, n (%)	234 (69.6%)
	102 (30.4%)

Mid-week	
Weekend	
Comorbidity, n (%)	189 (56.3%)
Hypertension	48 (14.3%)
Cardiac diseases	39 (11.6%)
Diabetes mellitus	35 (10.4%)
COPD	24 (7.1%)
Other	
Mechanism of injury, n (%)	127 (37.8%)
Assault	96 (28.6%)
Motor vehicle collisions	91 (27.1%)
Fall	22 (6.5%)
Pedestrian	0 (0%)
Penetrating	
GCS, median (IQR 25-75)	15 (14-15)
Ethanol level, median (IQR 25-75)	237 (156-293) 227 ±93.4
ISS, median (IQR 25-75)	2 (1-4)
ISS group, n (%)	301 (89.6%)
Mild	38 (11.3%)
Moderate-severe	
Injury area, n (%)	221 (65.8%)
Superficial wound injury	50 (14.9%)
Extremity/vertebra	27 (8%)
Thorax	26 (7.7%)
Head/face	9 (2.7%)



Abdomen	8 (2.4%)
Pelvis/hip	
Patient outcome, n (%)	293 (87.2%)
Discharge	20 (6%)
Hospitalization	23 (6.9%)
Intensive care unit	
Hospital length of stay, median (IQR 25-75)	4 (3-6)
In hospital mortality, n (%)	6 (1.8%)

Demographic data of all patients (n=336)

Conclusions: In this study, in which we evaluated whether concomitant alcohol positivity was effective on trauma characteristics and severity in geriatric trauma patients in the ED, we showed that the majority of alcoholic geriatric trauma patients were male and single, that they had more frequent head trauma compared to the non-alcoholic group, that the presence of alcohol was associated with increased severity of injuries regardless of the ethanol level, but was not effective in terms of poor composite outcomes.

Keywords: Ethanol, alcohol, geriatric, trauma, poor outcome



Ref No: 6389

Pub No: S-203

Confirmation Of Chest Compression Location In Cardiopulmonary Resuscitation With Transoesophageal Echocardiography

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Background and aim: Echocardiography is effective in identifying arrest etiology, guiding treatment, and confirming ROSC during CPR. While TTE, as recommended by the 2015 ILCOR guidelines, requires pauses in compressions and has diagnostic limitations, TEE allows continuous cardiac monitoring without interruptions and is the gold standard for distinguishing PEA and pseudo-PEA. However, studies suggest that standard chest compressions often miss the left ventricle, indicating a need for further research to optimize CPR techniques. Our aim in this study is to evaluate whether the anatomical positioning and variations of the heart affect the outcome of CPR.

Methods: The study was a prospective observational design involving patients over 18 who experienced cardiac arrest during emergency department follow-up. CPR was initiated according to guidelines, and TEE video recordings were obtained within the first 5 minutes. The maximum compression area of the heart was identified and recorded via TEE during standard chest compressions. Patients were divided into three groups based on the compression area: left ventricle, right ventricle, and left ventricular outflow tract (LVOT), and compared in terms of ROSC, in-hospital mortality, and neurological outcomes.

Results: Among the 32 patients included in the study, 14 were female. The mean age was calculated as 71.68±10.46 years. Left ventricle compression was observed in 12 patients (37.5%), right ventricle in 14 patients (43.8%), and LVOT in 6 patients (18.8%). All introductory statistics are presented in Table 1. The comparison of the three compression areas in terms of ROSC, emergency department, and in-hospital outcomes is presented in Table 2. No statistically significant differences were observed between the compression areas across the outcome groups.

Table 1

	Statistics
Age	71,68±10,46
Gender	
Woman	14 (%43,8)
Man	18 (%56,3)
The Place Under The Most Pressure	
Left Ventricle	12 (%37,5)
Right Ventricle	14 (%43,8)
LVOT or Aorta	6 (%18,8)
ROSC	
No	12 (%37,5)

Yes	20 (%62,5)
In Emergency Department Outcome	
Hospitalization	7 (%21,9)
Exitus	25 (78,1)
In Hospital Outcome	
Discharge	2 (%6,2)
Exitus	30 (%93,8)

Table 2

		The Place Under The Most Pressure				X²	p
		Left Vent	Right Vent	Lvot Or Aorta	Total		
RosC	No	n	5	6	1	12	1371 0,504
		%	41,667%	42,857%	16,667%	37,50%	
	Yes	n	7	8	5	20	
		%	58,333%	57,143%	83,333%	62,500%	
Total		n	12	14	6	32	
		%	100%	100%	100%	100%	
In Emergency Department Outcome	Hospitalization	n	3	4	0	7	2116 0,347
		%	25 %	28,571%	0 %	21,875%	
	Ex	n	9	10	6	25	
		%	75%	71,429%	100%	78,125%	
Total		n	12	14	6	32	
		%	100%	100%	100%	100%	
In Hospital Outcome	Discharge	n	1	1	0	2	0,508 0,776
		%	8,333%	7,143%	0 %	6,250%	
	Ex	n	11	13	6	30	
		%	91,667%	92,857%	100%	93,750%	
Total		n	12	14	6	32	
		%	100%	100%	100%	100%	

Conclusions: This study found no statistically significant differences in CPR outcomes based on the area of maximum chest compression (left ventricle, right ventricle, or LVOT). While TEE helps identify anatomical variations, further research is needed to assess whether targeting specific cardiac areas could improve CPR effectiveness.

Keywords: TEE, CPR, Emergency Department



Ref No: 6518
Pub No: S-156

Predicting Clinical Severity and Re-admissions in Patients with COPD Exacerbations Using Near Infrared Spectroscopy (NIRS) in the Emergency Department

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Background and aim: The Emergency Department (ED) must evaluate the clinical severity and determine the need for hospitalization in cases of chronic obstructive pulmonary disease (COPD). We use near-infrared spectroscopy (NIRS), a noninvasive tool, to measure changes in the oxygenation of the chromophore hemoglobin. The objective of this investigation was to assess the NIRS values of the patients and their correlation with clinical outcomes and re-admission.

Methods: The study included patients with COPD exacerbations in the ED and recorded their vital signs and blood gases. Throughout the ED follow-up period, we continuously measured the ST02 levels of the study's patients. We take measurements for the first hour, then again for the second hour. Additionally, we classified the patients based on the current GOLD (Global Initiative for Chronic Obstructive Lung Disease) guideline and compared the data between the groups. We collected the patients' 30-day and 90-day readmission data over the phone.

Results: The study included 114 patients. The ED re-admitted forty-five (39.5%) of the patients within 30 days and 54 (47.4%) within 90 days. Comparison of the NIRS values between groups revealed that the moderate clinical severity group had a significant change (hand and frontal data, respectively, $p = 0.003$, $p = 0.007$).

Conclusions: NIRS may be helpful in predicting the clinical outcome of patients presenting to the ED with COPD exacerbations. In addition, it can provide insight into determining re-admissions.

Keywords: COPD, dyspnea, near Infrared Spectroscopy, emergency department



Ref No: 6559
Pub No: S-213

"Evaluation of the effects of laboratory values, oxidation parameters, scoring systems and ventricular diameter measurements on prognosis in patients diagnosed with acute pulmonary embolism in the emergency department"

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Background and aim: The aim of the study is to investigate the role of oxidant and antioxidant levels in the diagnosis of acute pulmonary embolism (APE).

Methods: Participants diagnosed with APE were included in Group 1 and healthy volunteers were included in Group 2. In addition, Group 1 was divided into two groups according to the 30-day mortality status.

Results: Sixty-five participants diagnosed with acute pulmonary embolism were included in Group 1. Of the Group 1 participants, 43 (66%) were female and 22 (34%) were male. Fifty-two healthy volunteers were included in Group 2. Of the Group 2 participants, 26 (50%) were female and 26 (50%) were male. When Group 1 and Group 2 were compared, there was a statistically significant difference between TAC, TOC, OSI and IMA levels. TAC levels in Group 1 were lower than in Group 2, and TOC, OSI and IMA levels were higher. When ROC analysis was performed for TAC, TOC, OSI and IMA, the highest area under the curve (AUC) was found in OSI, TOC and IMA, respectively. When the cut-off value for OSI was determined to be 3.0, the sensitivity was 62%, the specificity was 92%, the positive predictive value was 94% and the negative predictive value was 92% (Tables 1A, 1B). Fifteen (23%) of the Group 1 participants died within 30 days of admission to the emergency department (Group 1A), and 50 (77%) survived after 30 days (Group 1B). When the patients in Group 1A and Group 1B were compared, there was no statistically significant difference in terms of age, gender, body temperature, SaO₂. Compared to Group 1B, SBP and DBP were lower and heart rate was higher in Group 1A (Table 2).

Table 1. A. Comparison of oxidant and antioxidant levels of participants included in Group 1 and Group 2.

Oxidant/antioxidant	Patients/healthy volunteers	Median (min-max)	P
TAC*	Group 1	1.6 (1.1-2.4)	0.002
	Group 2	1.8 (1.2-2.3)	
TOC†	Group 1	6.1 (1.7-22.6)	0.001
	Group 2	3.5 (2.1-7.3)	
OSI‡	Group 1	3.5 (0.9-13.7)	0.001
	Group 2	1.8 (1.2-4.8)	
IMA§	Group 1	0.6 (0.6-0.9)	0.001
		0.5 (0.5-0.6)	



	Group 2		
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Table 1B. ROC analysis of TAC, TOC, OSI and IMA levels in participants included in Group 1

Test Result Variable(s)	AUC	P	Lower Bound	Upper Bound
TAC	0.336	0.002	0.236	0.436
TOC	0.773	0.001	0.688	0.859
OSI	0.816	0.001	0.740	0.893
IMA	0.738	0.001	0.638	0.838

Table 2. Comparison of clinical findings of participants included in Group 1A and Group 1B

Group		Age	SBP	DBP	Pulse	Body temperature	SaO2
Group 1B	Median	72	117	78	95	36.2	93
	Min	18	77	47	56	36.0	74
	Max	93	193	129	181	37.6	100
Group 1A	Median	65	104	70	124	36.0	90
	Min	23	76	53	70	36.0	40
	Max	98	131	80	148	37.0	99

Conclusions: Oxidant and antioxidant balance is impaired in APE. Therefore, oxidants and antioxidants can be used in the diagnosis and exclusion of patients with suspected APE

Keywords: Antioxidant, ischemia, oxidant, oxidative stress, pulmonary embolism



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Pub No: S-175

Evaluation of pediatric intoxication

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Background and aim: In our country, as in many parts of the world, pediatric poisonings are a significant public health issue, ranking just after trauma. In poisonings occurring during childhood, those in children under the age of 6 are often primarily due to unwanted accidents. In contrast, in older age groups, poisonings are more commonly intentional and typically associated with suicidal intent. In this study, cases presenting to the emergency department of Erzurum City Hospital due to medication-related poisonings were evaluated.

Methods: A total of 81 pediatric patients who presented to the emergency department with poisoning between January 1, 2017, and December 31, 2019, were included in the study. The patients' age, gender, whether the ingestion was accidental or intentional, vital signs, drug active ingredients, need for intensive care, psychiatric follow-up and the use of antidotes, activated charcoal, and gastric lavage were all evaluated

Results: Of these, 53.1% (n=43) were male. The average age of the children included in the study was 5.20 years. At the time of hospital admission, 87.7% (n=71) were observed to be fully conscious. It was observed that 87.7% (n=71) of these individuals ingested the medications accidentally. Among the 16 patients who required intensive care, 2 developed esophagitis, and 1 patient was intubated. Active charcoal treatment was administered to 45.7% (n=37) of the patients at the time of hospital admission. Additionally, gastric lavage was performed on 34.6% (n=28) of these cases.

Conclusions: Poisonings often do not exhibit specific characteristics. Therefore, a thorough patient history should be taken, and initial treatment should focus on supporting vital functions. Educating families on these matters and providing serious warnings to children about potential dangers are believed to reduce poisonings, as well as the associated complications and mortality.

Keywords: Pediatrics, poisoning, antidote, suicide, medication



Ref No: 6667
Pub No: S-211

The Prognostic Value of Scoring Systems and Ultrasonographic Assessment in Critically Ill Patients in the Emergency Department

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Background and aim: This study evaluates the prognostic value of emergency scoring systems (REMS, MEWS, HOTEL) and the utility of bedside ultrasonography in critically ill patients, focusing on Inferior Vena Cava (IVC) collapsibility and Ejection Fraction (EF).

Methods: A prospective cross-sectional study was conducted at S.B.Ü Istanbul Kanuni Sultan Süleyman Training and Research Hospital. Patients aged 18 and older who were admitted to the emergency department and subsequently monitored in the critical care unit were included. REMS, MEWS, and HOTEL scores were calculated for each patient. IVC collapsibility and EF were assessed using bedside ultrasonography by emergency physicians. Continuous variables were analyzed using t-tests, Mann-Whitney U, ANOVA, and Kruskal-Wallis tests.

Results: Between October 1, 2022, and October 1, 2023, 59 critically ill patients (median age 71.36 years) were enrolled, with 49.2% female. Hypertension (52.5%) and diabetes mellitus (35.6%) were the most common conditions. Mortality occurred in 45.8% of patients. A significant correlation was observed between mortality and systolic blood pressure ($p=0.021$) and respiratory rate ($p=0.021$). Median systolic blood pressure was 110 mmHg in the mortality group and 142 mmHg in survivors. GCS ($p=0.002$) and AVPU ($p=0.003$) were significantly higher in survivors, while MEWS ($p=0.004$) and HOTEL ($p<0.001$) scores were higher in the mortality group. REMS score did not show a significant correlation with mortality ($p=0.105$). No significant association was found between IVC collapsibility ($p=0.084$) or EF ($p=0.307$) and mortality.

Relationship Between Age and Vital Signs and Mortality

	Survivor		Mortality		P Value
	Median	IQR	Median	IQR	
Age (year)	73.5	18.75	72	26	0.867
Systolic BP (mmHg)	142	40	110	70	0.021
Diastolic BP (mmHg)	80	15.75	70	30	0.171
Heart rate/ bpm	88.5	30	102	49	0.076
Body temperature °C	36.5	0.55	36.6	0.3	0.170
Respiratory rate / bpm	20	4.75	22	6	0.021
SPO ₂ %	93.5	12.75	90	14	0.160
MAP (mmHg)	100	30.15	90	35	0.201

(*BP: Blood Pressure, SPO₂: Peripheral Capillary Oxygen Saturation, MAP: Mean Arterial Pressure) (MannWhitney U test)



Relationship Between Calculated Scorings and Mortality

	Survivor		Mortality		P Value
	Median	IQR	Median	IQR	
GCS	15		13	3	0.002
AVPU	4		3	2	0.003
REMS	8	3	8	3	0.105
MEWS	2	2	4	4	0.004
HOTEL	1	1	2	1	<0.001

(*GCS: Glaskow Coma Scale, AVPU: Alert, Verbal, Painful, Unresponsive, REMS: Rapidly Emergency Score, MEWS: Modified Early Warning Score, HOTEL: Hypotension, Oxygen Saturation, Temperature (Low), Electrocardiogram Changes, Independent Standing (Inability to)) (MannWhitney U test)

Relationship between Targeted Bedside USG Data and Mortality

	Survivor		Mortality		P Value
	Median	IQR	Median	IQR	
IVC Collapsibility Index (mm)	32.5	40	45	48	0.084
EF (%)	55	19.5	52	13	0.307

(*IVC: Inferior Vena Cava, EF: Ejection Fraction) (MannWhitney U test)

Conclusions: We believe that MEWS and HOTEL scoring systems can effectively evaluate patient conditions, serving as valuable tools for early diagnosis and treatment in emergency departments. However, Inferior Vena Cava collapsibility and EF measured by bedside ultrasonography have shown limited predictive value for mortality. Combining traditional scoring systems with modern imaging techniques may provide a more comprehensive approach to assessing critically ill patients, potentially leading to faster recognition, appropriate treatment, and improved survival outcomes.

Keywords: Emergency Department, Critical Patient, Scoring Systems, Ultrasonography



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Pub No: S-164

Assessing Professional Commitment Among Medical Interns Post-Emergency Medicine Internship

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Background and aim: The emergency medicine internship is a pivotal rotation in medical education, characterized by significant responsibilities and hands-on clinical experience. In Turkey, this internship follows six years of rigorous academic and clinical training. The Commitment to the Medical Profession Scale (CMPS), known for its reliability in Turkish, is used to evaluate intern dedication. This study aims to assess the dedication of medical interns following their emergency medicine internship and to identify factors influencing this dedication, particularly those that may impact future career trajectories.

Methods: This prospective survey study targeted medical interns who completed their emergency medicine internship during the 2022-2023 academic year at Muğla Sıtkı Koçman University. Participants completed an anonymous questionnaire, including 30 closed-ended questions and the CMPS, providing a comprehensive assessment of their professional dedication.

Results: The study included 109 intern doctors (mean age 24.39 ± 1.20 years), with 52.3% being female. Among them, 75.2% chose medical school as their first choice, while 42.2% experienced at least one academic or clinical failure. The overall dedication score had a median of 35 (ranging from 11 to 45), with males scoring slightly lower (median 33) compared to females (median 36), though this was not statistically significant. Female interns reported higher initial professional aspirations, but their CMPS scores were comparable to those of their male counterparts. Interns who faced academic challenges showed lower commitment and increased career anxiety. Nearly half of the interns expressed a desire to work abroad, raising concerns about potential brain drain within the national healthcare system.

Conclusions: The study underscores the need for educational reforms that provide robust academic support and reduce gender disparities, essential for fostering a resilient and dedicated medical workforce to meet healthcare demands both domestically and internationally.

Keywords: Emergency Medicine, Medical Internship, Professional Dedication, Career Aspirations



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Pub No: S-170

Assessment of Coronary Artery Dominance on Prognosis and Mortality in Patients with Anterior ST-Elevation Myocardial Infarction

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Background and aim: This study aims to evaluate the impact of coronary artery dominance on prognosis and mortality in patients with anterior ST-elevation myocardial infarction (STEMI).

Methods: We analyzed a cohort of patients with anterior STEMI, comparing survivors (n=51) and non-survivors (n=22). We assessed various clinical and laboratory variables, including age, sex, comorbid conditions, and indices of systemic inflammation. Univariable and multivariable logistic regression analyses were performed to identify independent predictors of mortality.

Results: ** Non-survivors were significantly older (68 vs. 51 years, $p<0.001$), had higher rates of diabetes mellitus (8% vs. 14.4%, $p=0.029$), hypertension (54.5% vs. 23.7%, $p=0.008$), and chronic renal failure (18.2% vs. 0.8%, $p=0.002$). They also had lower left ventricular ejection fraction (41% vs. 50%, $p=0.024$) and higher triglyceride levels (102.9 mg/dL vs. 145.5 mg/dL, $p=0.042$). Despite these differences, coronary artery dominance (left vs. right) did not significantly impact mortality ($p=0.484$). Multivariable analysis revealed that age (HR 1.060, 95% CI 1.002-1.121, $p=0.041$), NLR (HR 1.233, 95% CI 1.136-1.339, $p<0.001$), SIRS (HR 1.175, 95% CI 1.071-1.129, $p<0.001$), SII (HR 1.001, 95% CI 1.000-1.001, $p<0.001$), and AISI (HR 1.001, 95% CI 1.000-1.001, $p<0.001$) were independent predictors of mortality.

Receiver operating characteristic (ROC) analyses showed that the best cut-off value of the SIRS to predict the mortality was 5.56 with 69.5 % sensitivity and 86.4 % specificity (AUC=0.852; 95 % CI: 0.779-0.925 $p<0.001$)

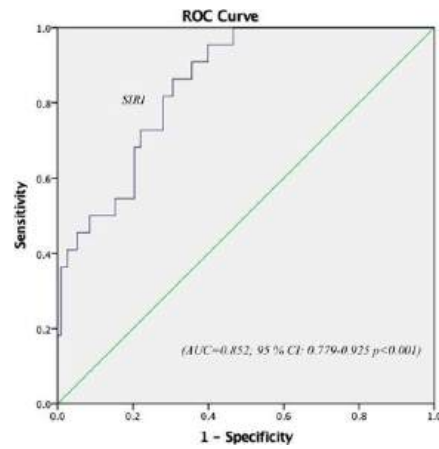


Table 1. Clinical, demographic and laboratory characteristics of the study group according to mortality in patients with acute myocardial infarction.

Variables	Survivors n=	Non-survivors n=	P value
Age, years	51(45-60)	68(53-79)	<0.001
Sex, male %	87.7	77.3	0.362
Diabetes Mellitus, %	14.4	8	0.029
Hypertension, %	23.7	54.5	0.008
Smoking, %	30.5	9.1	0.039
COPD, %	1.7	9.1	0.116



Chronic Renal Failure, %	0.8	18.2	0.002
LVEF, %	50(40-55)	41(40-50)	0.024
Left coronary dominance, %	40.7	50	0.484
Hospitalization time, day	3(3-4)	3.5(1-7.75)	0.799
Total cholesterol, mg/dL	204.5±48.1	192.5±67.7	0.505
LDL cholesterol, mg/dL	131(107.5-163.5)	105(89-165.2)	0.376
HDL cholesterol, mg/dL	42.3±11.7	46.3±13.5	0.277
Triglyceride, mg/dL	145.5±101	102.9±68.8	0.042
Troponin, ng/ml	225.6±486	153±221	0.275
Lactate, mmol/L	2.95±1.54	3.52±2.44	0.339
Platelet count, ×10 ⁹ /L	336±102	290±68	0.012
MPV	10±1.1	10±1.0	0.985
NLR	2.81(1.71-5.16)	12.28(7.32-17.48)	<0.001
SIRI	3.34(2.6-5.86)	9.21(5.89-25.63)	<0.001
SII	896.9(534.4-2010)	3015.4(1842.9-5125.2)	<0.001
AISI	1078.5(627.9-2122.7)	2684.1(1324.3-7653)	<0.001

Table 2. Univariable and Multivariable logistic regression analysis to detect the independent predictors of mortality in patients with acute anterior myocardial infarction.

Variables	Univariable Analysis			Multivariable Analysis		
	HR	(95% CI)	p	HR	(95% CI)	p
Age	1.092	10.461-140	<0.001	1.060	1.002-1.121	0.041
LVEF	0.940	0.897-0.986	0.011	0.944	0.888-1.004	0.067
Platelet count	0.994	0.988-1.000	0.053	0.993	0.984-1.002	0.106
Hypertension	0.259	0.101-0.664	0.005	0.527	0.136-2.049	0.355
Diabetes Mellitus	0.295	0.107-0.808	0.018	0.309	0.066-1.448	0.136
Smoking	4.390	0.974-19.783	0.054	1.222	0.192-7.775	0.832
NLR	1.233	1.136-1.339	<0.001			
SIRI	1.195	1.110-1.286	<0.001	1.175	1.071-1.129	<0.001
SII	1.001	1.000-1.001	<0.001			

				
AISI	1.001	1.000-1.001	<0.001	

Conclusions: **: In patients with anterior STEMI, coronary artery dominance does not significantly affect mortality. Instead, age and systemic inflammation indices (NLR, SIRI, SII, AISI) are more predictive of adverse outcomes. These findings suggest a need to focus on systemic inflammatory markers and patient age when assessing risk and managing patients with anterior STEMI.

Keywords: Coronary Artery Dominance Anterior ST-Elevation Myocardial Infarction Mortality Prediction Systemic Inflammation Indices Left Ventricular Ejection Fraction



Ref No: 7184

Pub No: S-166

Comparison of Analgesic Efficacy of Ibuprofen and Dexketoprofen in Pain Management of Long Bone Fractures: A Prospective, Randomized, Double-Blind Study

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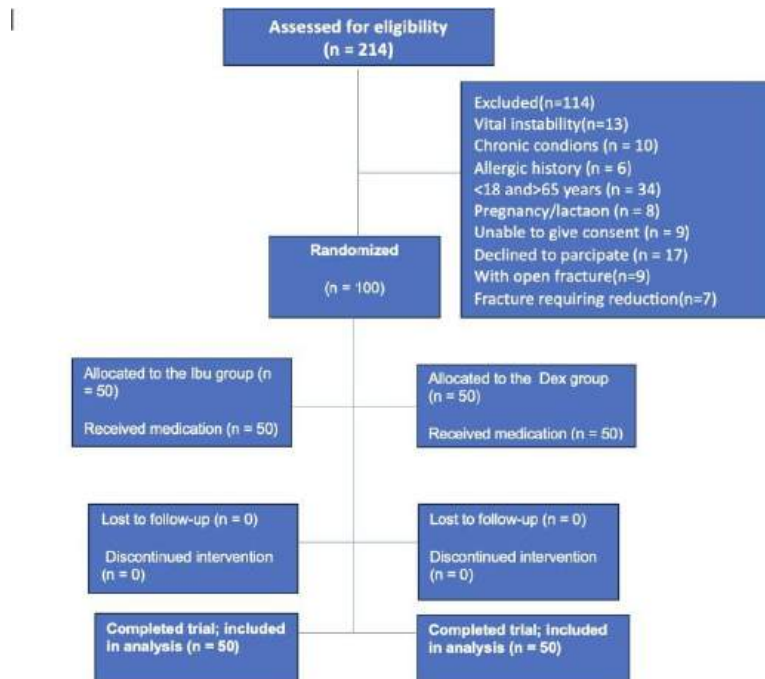
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Background and aim: Long bone fractures (lbf) often cause severe pain, impacting patients' quality of life. This prospective, randomized, double-blind study aimed to compare the analgesic efficacy of dexketoprofen (dex) and ibuprofen (ibu) in lbf patients in the emergency department.

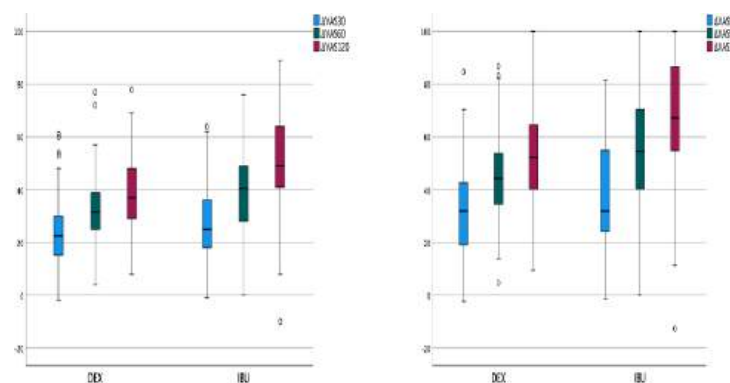
Methods: Conducted between August 10, 2023, and January 17, 2024, the study included 100 eligible patients randomized into dex and ibu groups. Visual Analog Scale (VAS) scores were measured at baseline and at 30, 60, and 120 minutes. DeltaVAS (Δ VAS) values and Δ VAS percentages (Δ VAS%) were calculated. Primary endpoints were Δ VAS scores (Δ VAS 30-60-120) and Δ VAS% for comparative analysis.

The Consort flow diagram illustrating the study

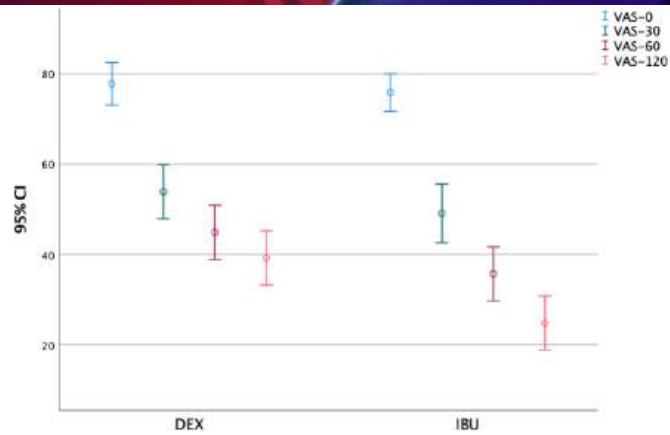


Results: Statistical analysis showed no significant difference in Δ VAS30 ($p=0.359$). However, Δ VAS60 exhibited a significant difference ($p=0.027$), as did Δ VAS120 ($p<0.001$). Δ VAS%30 showed no significance ($p=0.224$), but Δ VAS%60 and Δ VAS%120 were clinically and statistically significant ($p=0.017$ and $p<0.001$, respectively).

Comparison of VAS scores among the groups at the 0th 30th, 60th, and 120th minutes



VAS values of participants at different measurement points and the corresponding reductions at the 30th, 60th, and 120th minutes compared to baseline



Conclusions: Ibuprofen 800 mg demonstrated superior analgesic efficacy at 60 and 120 minutes compared to dex in long bone fractures. These findings suggest ibuprofen's potential as an effective pain management option in emergency departments.

Keywords: Long Bone Fractures, Dexketoprofen, Ibuprofen, Analgesic Efficacy, Emergency Department



Ref No: 7317
Pub No: S-159

Comparison of DECAF and NEWS2 Scores for Mortality and ICU Admission Prediction in Acute COPD Exacerbations

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Background and aim: Chronic obstructive pulmonary disease (COPD) patients visit emergency departments (EDs) frequently with exacerbations, and management of these patients in crowded EDs becomes difficult. The aim of this study was to compare the DECAF and NEWS2 scores, in terms of predicting 30-day mortality and intensive care unit (ICU) admission in patients presenting to the ED with acute exacerbation of chronic obstructive pulmonary disease (AECOPD).

Methods: This is a single-center, observational, prospective study conducted in the emergency medicine clinic of a tertiary care hospital. In the study, the DECAF and NEWS2 scores of the patients presenting to the ED with AECOPD were recorded. ROC analysis was applied to understand the prognostic accuracy of both scoring systems.

Results: A total of 467 patients were included in the study. According to ROC curves for mortality, the AUC for the DECAF score was 0.748 (95% CI: 0.684-0.815; $p=.001$), while the AUC for the NEWS2 score was 0.732 (95% CI: 0.664-0.800; $p=.001$). According to ROC curves for ICU admission, the AUC for the DECAF score was 0.732 (95% CI: 0.683-0.781; $p=.001$), while the AUC for the NEWS2 score was 0.783 (95% CI: 0.738-0.828; $p=.001$).

Conclusions: The results of this study showed that both DECAF and NEWS2 scores might be used to predict the 30 day mortality and ICU admission of patients who visited ED for AECOPD.

Keywords: chronic obstructive pulmonary disease, exacerbation, DECAF score, NEWS2 score, emergency department



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Preliminary Analysis of Hyperglycemic Crises in Patients with Serum Glucose Levels Above 1000 mg/dL

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Background and aim: Hyperglycemic crises, including diabetic ketoacidosis (DKA), hyperosmolar hyperglycemic state (HHS), and mixed forms, are severe complications of diabetes mellitus (DM) commonly seen in emergency departments (EDs). Despite advancements in DM management, mortality rates remain significant. There is limited data on patients with extreme hyperglycemia exceeding 1000 mg/dL, and this study aims to examine their clinical characteristics and outcomes.

Methods: This retrospective study was conducted in a university-affiliated hospital's ED from July 1, 2019, to January 1, 2023. All adult patients diagnosed with hyperglycemic crises during this period were included. The following parameters were extracted upon admission to the ED: age, sex, comorbidities, past medication use, diabetes history, type of diabetes diagnosed, pre-existing diabetes treatments, and precipitating causes of hyperglycemic crises. The primary end point was in-hospital all-cause mortality.

Results: During the study period, 419,505 adult ED visits were recorded in the hospital's electronic health data system. Of these, 650 consecutive hospitalizations (0.15% of total visits) were related to hyperglycemic crises. Among these, 11 patients with serum glucose levels exceeding 1000 mg/dL were identified and categorized into three groups: DKA (6 patients, 60.4%), HHS (4 patients, 26.4%), and mixed form (2 patients, 13.2%). The mean age of the patients was 66.7 ± 15.8 years (range: 19-94 years), with 66.1% being male. A total of 9 out of 11 patients died, yielding an all-cause in-hospital mortality rate of 82%. The median survival time was 4 days (range: 1-13 days). Infections were the most frequent precipitant of hyperglycemic crises, identified in 41.7% of cases, followed by newly diagnosed diabetes (33.3%) and medication non-adherence (26.5%). The mean admission blood glucose level was 1074 ± 10.0 mg/dL.

Conclusions: Hyperglycemic crises with glucose levels over 1000 mg/dL carry a high mortality risk, emphasizing the need for early intervention and addressing the underlying causes, such as infections and non-adherence to treatment.

Keywords: Hyperglycemic Crises, mortality, emergency department



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Evaluation of the frequency and results of tomography use in patients diagnosed with renal colic in the emergency department

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Background and aim: The importance of reducing unnecessary computed tomography (CT) imaging for renal colic symptoms is recognized internationally. In this study, we aimed to evaluate the frequency and indications for CT imaging and the results of CT imaging in patients diagnosed with renal colic in the emergency department.

Methods: The study is a retrospective study. Between 1 January 20201 and 31 December 2023, patients aged 18 years and older who were diagnosed with renal colic in the Emergency Medicine Clinic and who had a non-contrast urinary tomography was included in the study. Demographic data, comorbid diseases, complaints at presentation, vital signs, and laboratory results were investigated. CT results were evaluated for the presence of stones, hydronephrosis with stones, simple cysts and masses. Simultaneously, other abdominal pathologies that may cause morbidity in the patient were evaluated. CT indications, findings, final diagnosis, discharge or hospitalization status were analyzed.

Results: The study included 232 patients. The most common indication for CT was severe flank pain, and no indication was found in 15% of the patients. In 7.8% of the patients, CT was performed because of abdominal pain accompanying flank pain. The rate of abdominal pathology other than urolithiasis that could cause morbidity was 4.7% and the most common pathologies were acute cholecystitis and appendicitis.

table 1

Age , years, median (IQR 25-75)	33.2 (44-55.7)
Sex n (%)	162 (69.8%)
Male	
Co-morbidity n (%)	204 (87.9%)
No comorbidity	13 (5.6%)
hypertension	8 (3.4%)
Diabetes Mellitus	6 (2.6%)
Cardiac disease	14 (6%)

Urological illness	37 (15.9%)
Urolithiasis	6 (2.6%)
Others	
Symptoms n (%)	206 (88.8%)
Unilateral flank pain	96 (41.4%)
Dysuria	66 (28.4%)
Abdominal pain	55 (23.7%)
Nasua/Vomiting	42 (18.1%)
Hematuria	14 (6%)
Fever	32 (13.7%)
Other	
Vital signs	88 (80-95)
Pulse	134 (126-138)
Systolic tension	84 (80-91)
Diastolic tension	36.2 (36.1-36.2)
Temperature	
laboratory, median (IQR 25-75)	107 (95-124)
Glucose	33 (27-40)
BUN mg/dL	1.03 (0.9-1.33)
Creatinine mg/dL	11 (8.6-12.7)
WBC	2 (1-5)
Urine analysis	3 (1-52)
Erythrocyte	1014 (1006-1022)
Leukocyte	
Density	



Urology consultation	56 (24.1%)
Hospitalization n (%)	20 (8.6%)
Hospital stay duration, (days) median (IQR 25-75)	2 (1-4)

Demographic data of patients (n=232)

table 2

CT results	
those who are not stones	75 (32.3%)
Only stone	70 (30.2%)
Stone +hydronephrosis	87 (37.5%)
Simple kidney cyst	23 (9.9%)
Pathologies that may cause morbidity	
Acute cholecystitis	11 (4.7%)
Acute appendicitis	3
Ovarian cyst	3
acute pancreatitis	2
renal infarction	2
	1
CT indication	66 (28.4%)
Severe pain/recurrent analgesic need	48 (20.7%)
Suspected UTI	30 (12.9%)
Vomiting more than twice	42 (18.1%)
Hematuria	12 (5.2%)
Oliguria	37 (15.9%)



Presence of urolithiasis	18 (7.8%)
Abdominal pain with side pain	30 (12.9%)
After consultation	35 (15.1%)
No indication found	

CT findings

Conclusions: CT is often used as an initial diagnostic modality for suspected recurrent renal colic despite current guidelines. In this study, CT was most commonly performed because of severe flank pain. In a considerable number of patients, there was no indication for CT imaging. Current guidelines are needed to reduce unnecessary CT imaging.

Keywords: computed tomography, renal colic, emergency department



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Investigation of The Effect of Electrocardiography Findings on 30-Day Mortality in Patients Applied to the Emergency Department for Syncope

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Background and aim: In our study, we aimed to contribute to the literature by investigating the mortality rates of male and female patients over the age of 18 who applied to the emergency department with syncope within 30 days according to the ECG findings

Methods: Our study is prospective, observational and single-centered. Between 01.04.2021 and 01.10.2021, a total of 217 patients, 116 male and 101 female were included in the study. Patients included in the study or their relatives were contacted by phone on the 30th day and the patients were followed up.

Results: In our study 53.5% (n=116) were men, 46.5% (n=101) were women, and the mean age was 46.41±19.42 years. It was observed that the patients with bundle branch block, arrhythmia, QRS prolongation, QT prolongation and AV block in their ECGs had a higher mortality rate (p<0.05). The sum of the highest R and deepest S waves in the chest leads in the ECGs of the patients was calculated, and a significant correlation was found between the increase in this value and the patient mortality (p=0.002).

Table 1. Chi-square Results Performed in the Context of ECG and Mortality Status

	Alive		Death		Total		
Normal Sinus Rhythm	n	%	n	%	n	%	P
No	90	92,8	7	7,2	97	100	.013*
Yes	119	99,2	1	0,8	120	100	
	Alive		Death		Total		
Atrioventricular Block	n	%	n	%	n	%	P
No	205	96,7	7	3,3	212	100	.050*
Yes	4	80	1	20	5	100	
	Alive		Death		Total		
QT Interval Prolongation	n	%	n	%	n	%	P
No	202	98,5	3	1,5	205	100	.000***
Yes	7	58,3	5	41,7	12	100	
	Alive		Death		Total		
QRS Distance Prolongation	n	%	n	%	n	%	P

No	208	97,2	6	2,8	214	100	.000***
Yes	1	33,3	2	66,7	3	100	
	Alive		Death		Total		
Arrhythmia	n	%	n	%	n	%	P
No	159	98,1	3	1,9	162	100	.014*
Yes	50	90,9	5	9,1	55	100	
	Alive		Death		Total		
Branch Blocks	n	%	n	%	n	%	P
No	195	97,5	5	2,5	200	100	.001***
Yes	14	82,4	3	17,6	17	100	
	Mortality	Average	Average Rank	Total of Ranks	U	P	
R+S^a	Alive	21,63	108,07	22586	294,5	.002**	
	Death	24,63	133,38	1067			

Conclusions: Syncope is one of the frequent reasons for admission to the hospital. In our study, we discussed various ECG parameters that were individually analyzed and compared with each other in terms of one-month mortality of the patients. We found that patients with bundle branch block, arrhythmia, QRS prolongation, QT prolongation, and AV block had a higher mortality rate, and patients with normal sinus rhythm had a lower mortality rate. We have seen that the high R+S value, which has never been studied before, is directly proportional to mortality. In conclusion, ECG evaluation is important in the evaluation of syncope patients, but it is not sufficient alone. The importance of the patient's history, physical examination findings, comorbidities, and the clinician's view of the patient should not be forgotten.

Keywords: Electrocardiography, Syncope, Emergency Service, R+S ratio, Mortality



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Can BUN/Albumin Ratio Be Used As A Predictive Parameter For Mortality In A Pneumonia Patient?

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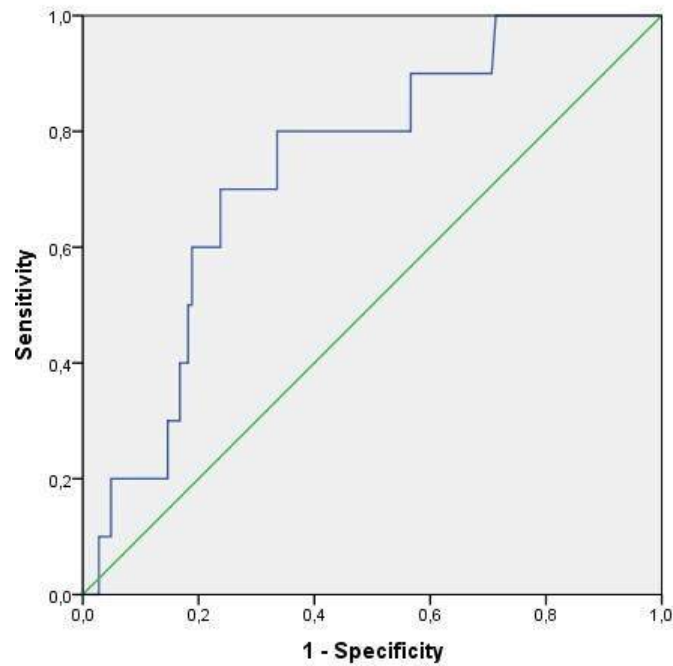
Background and aim: It has been frequently studied in the literature that the ratio of blood urea nitrogen (BUN) to albumin (BAR) can be used as a parameter in the course of many clinical conditions such as sepsis, cancer and cardiovascular diseases. The aim of our study is to examine the usability of BAR as a guiding parameter to indicate poor outcome and mortality in pneumonia patients.

Methods: The study was designed retrospectively, and the data of pneumonia patients who applied to our emergency department between 01.01.2024 and 01.06.2024 were examined. Demographic characteristics, vital parameters, comorbid diseases, discharge, hospitalization and exitus data of the patients were recorded. Factors affecting poor outcome and mortality were examined.

Results: 154 patients were included in the study, the female/male ratio was 67/87; The mean age was 55.8 ± 18.0 years. The most common co-morbid disease was hypertension (25.3%). The median BAR value of the patients was calculated as 2.71 (IQR: 0.92). It was determined that 53 (34.4%) of the patients were followed in the ward and 12 (7.8%) in the intensive care unit. The in-hospital mortality rate was determined as 6.5%. The power of BAR to make accurate decisions in predicting mortality was examined with ROC curve analysis (AUC-Area under the curve: 0.739, $p = 0.012$) (Figure 1). The sensitivity of BAR 3.01 value in predicting in-hospital mortality was found to be 70% and its specificity was 71%.

Figure 1

BUN-Albumin Ratio: ROC Curve Analysis



Conclusions: As a result of our study, we found that the success of BAR rates in showing the mortality risk of patients in the early period in pneumonia patients admitted to the emergency department was statistically significant. We think that BAR values can be used as a simple and inexpensive parameter to predict mortality in pneumonia patients.

Keywords: Pneumonia, BUN, albumin, BAR, Mortality



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The Effects of Virtual Reality Use on Patient Pain And Anxiety During Arterial Blood Gas Collection: A Randomized Controlled Trial

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Background and aim: We aimed to investigate the effects of using Virtual Reality (VR) on pain and anxiety during arterial blood gas puncture.

Methods: This study was conducted as a single-center, prospective, randomized, controlled clinical trial. Pre-procedural expected pain levels and anxiety about the procedure were recorded through a preliminary survey. A 100 mm Visual Analog Scale (VAS) was used for pain, and a 5-point Likert scale enhanced with emojis was used for anxiety. During the arterial blood gas sampling, the VR group watched a simulation of flying over mountains, lakes, and forests (National park Lena Pillars, Russia. 16K 360 aerial video) using the Oculus Quest 2 (Meta, USA, 2019) headset. The control group underwent the standard arterial blood gas sampling procedure. Post-procedural pain was recorded using a separate VAS, and procedural anxiety was recorded using a separate Likert scale.

Results: The study included 100 patients, with 50 in the VR group and 50 in the control group. The average pre-procedural expected pain VAS value was 49.0 ± 20.9 mm in the VR group and 53.9 ± 22.1 mm in the control group. The average post-procedural pain VAS value was 19 ± 15.8 mm in the VR group and 28 ± 22.7 mm in the control group. The changes in Δ VAS and % Δ VAS within the groups were not statistically significant for procedural pain ($p=0.345$, $p=0.146$). The median pre-procedural anxiety Likert values were 3 (2-4) in the VR group and 3 (2-3.25) in the control group. The median post-procedural Likert value was 4 (4-4) in the VR group and 3.5 (3-4) in the control group. The comparison of median values within groups showed that the reduction in anxiety was statistically significant in favor of the VR group ($p=0.014$).

Demographic Distributions of Patients

Variables		Groups			p-value
		VR	Control	Diff - 95% CI	
Gender, n (%)	Male	31 (62)	30 (60)	-0.18 – 0.22	0.838*
	Female	19 (38)	20 (40)		
Age, Median (25-75%)		60 (57-63.25)	59 (53.75-63)		0.255†
Size, Mean ± SD		165.4 ± 7.9	162.1 ± 14.9	-8.07 – 1.42	0.168‡
Weight, Mean ± SD		80.2 ± 21	84.9 ± 22.8	-3.96 – 13.44	0.282‡
Wrist Circumference (cm), Mean± SD		18.16±1.23	18.12±1.02	-0.49 – 0.41	0.860‡
Previously had ABG taken, n (%)		34 (68)	33 (66)	-0.18 – 0.23	0.832*
SBP (mmHg), Mean ± SS		149.6±29.3	135±23.1	-25.14 - -4.17	0.007‡
DBP (mmHg), Mean ± SS		77.4±13.9	71.2±12.1	-11.3 - - 0.93	0.021‡
Pulse, (BPM)		84.9±15.2	90.6±16.5	-0.61 - -11.97	0.076‡
Saturation, (%)		92±3.9	91.2±5.5	-2.75 – 1.03	0.369‡
Respiratory Rate, (BPM)		19.9±4.9	18.9±4.9	-2.97 – 0.89	0.290‡

*Pearson Chi-square test, †Mann Whitney-U, ‡ Student-t test
Diff: Difference, CI: Confidence Interval, SD: Standard Deviation, n: Sample Size, BPM: Beats per Minute, SBP: Systolic Blood Pressure, DBP: Diastolic Blood Pressure.

Procedure Pain Data

		MEASUREMENTS		Diff – 95% CI	p-value
		VAS-0 (mm)	VAS-1 (mm)		
GROUPS	VR, Mean ± SD	49±20.9	21.8±17.3	20.87 – 33.56	<0.001*
	Control, Mean ± SD	53.9±22.1	28±22.7	18.76 – 32.91	<0.001*
Diff – 95 % CI		-3.69 – 13.37	-1,79 – 14.23		
p-value		0.263 †	0.127 †		

*Paired sample -t test, † ; Student-t test
Diff: Difference, CI: Confidence Interval, SD: Standard Deviation, VAS: Visual Analog Scale

Both groups felt less pain than expected, but there was no statistically significant difference in the intergroup comparison.

Process Anxiety Data



		MEASUREMENTS		p-value
		Anxiety-0 (Likert)	Anxiety-1 (Likert)	
GROUPS	VR, Median (25-75%)	3(2-4)	4(4-4)	<0.001*
	Control, Median (25-75%)	3(2-3,25)	3,5(3-4)	<0.001*
	p-value	0.266 ‡	0.014 ‡	
* Wilcoxon test, ‡ Mann whitney U test				

Both groups stated that they felt less anxious after the procedure, but in the intergroup comparison, this difference was statistically significant in favor of the VR group.

Conclusions: Use of VR is not effective in reducing procedural pain during radial arterial blood gas sampling, but it does reduce procedural anxiety for patients.

Keywords: VR (Virtual Reality), ABG (Arterial Blood Gas), Pain, Anxiety, VAS (Visual Analog Scale)



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Comparison of salient features and discriminative features learning methods in electrocardiography training of emergency medicine residents

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Background and aim: Cognitive load theory posits that augmenting the germane load enhances learning, whereas augmenting the intrinsic or extraneous load impedes the learning process. The worked examples method is widely regarded as one of the most efficacious learning strategies. There are two methods of worked examples method: The salient features and the discriminative features. The primary objective of the study was to assess the impact of the salient features and discriminative features techniques on the electrocardiogram (ECG) training of emergency medicine residents.

Methods: This study was conducted using a randomized, prospective, crossover design. The study comprised emergency medicine residents working in a tertiary emergency department. The initial group underwent training on the salient features of bradycardia, followed by instruction on the discriminative features of tachycardia. The second group vice versa.

Results: A total of 26 emergency medicine residents were included in the study. There was no significant difference between the salient features and discriminative features techniques in the training of emergency medicine residents in ECG interpretation, both for tachycardia and bradycardia training.

Conclusions: This study demonstrates that both the salient features and discriminative features training techniques are applicable for educating emergency medicine residents in ECG interpretation. However, since the discriminative features method was reported to cause more germane load and less intrinsic load, this method may be prioritized over the other.

Keywords: education, emergency department, electrocardiography



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A 10-year retrospective review of laboratory tests in the evaluation of patients with psychiatric symptoms admitted to the emergency department

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Background and aim: This study aims to evaluate the impact of age, presence of medical comorbidities, history of psychiatric illness and presenting complaints on clinical decision-making and one-year mortality in patients presenting to the emergency department with psychiatric symptoms, as well as the efficiency of routine laboratory testing in detecting medical conditions.

Methods: The study was a single-center, retrospective cross-sectional study conducted at Kocaeli Derince Training and Research Hospital between 01.01.2012 and 31.12.2021. Laboratory tests, demographic information, psychiatric and medical comorbidities, presenting complaints, emergency department outcomes and 1-year mortality were analyzed on a total of 808 adult patients.

Results: In our study, there were 808 patients. Approximately 6.6% (n=53) of these patients resulted in hospitalization to another department and 3.2% (n=26) were mortal within 1 year. Independent risk factors for hospitalization to another department were medical comorbidity and accompanying medical complaint (OR: 53.27; 95% CI: 11.8-240; p<0.001). Risk factors for mortality were age above 45 years, presence of medical comorbidity and no history of psychiatric illness. The rate of clinically significant abnormal laboratory values in all patients included in the study was 7.5% (n=61) and this rate may increase further in groups stratified according to risk factors. However, it was found that many medical conditions detected by clinically abnormal laboratory values could be predicted by history and physical examination; medical conditions that would cause significant morbidity may not be detected in a total of 3 patients (0.05%).

Conclusions: Our study supports that factors that may affect the management of patients undergoing psychiatric evaluation in emergency departments can be predicted by history and physical examination and that laboratory tests should be used in a more targeted manner. Routine use of laboratory tests should be selective as it may lead to increased costs, patient victimization and workload.

Keywords: emergency department, laboratories, mental disorders, mortality, psychiatric



Ref No: 7864

Pub No: S-197

Treatment management of patients diagnosed with bladder injury secondary to pelvic fractures

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Background and aim: Extraperitoneal bladder rupture is often associated with pelvic trauma. While 83% of patients with bladder rupture have a pelvic fracture, bladder rupture is observed in more than 10% of patients with pelvic fracture. While most intraperitoneal bladder injuries are repaired surgically, extraperitoneal bladder injuries can also be treated non-surgically. In this study, we aimed to retrospectively evaluate the treatment approaches, clinical characteristics and follow-up of patients who developed bladder trauma due to pelvic fracture in our clinic.

Methods: As a result of the examinations performed at Erzurum City Hospital Emergency Service between January 2021 and January 2024, a total of 13 patients who developed extraperitoneal bladder trauma due to pelvic fracture were included in the study. Demographic and clinical characteristics of the patients, laboratory and radiological examinations, procedures performed, patient files, visit and operation notes of the patients who underwent surgical treatment, and patient discharge reports were evaluated retrospectively.

Results: 13 patients were included in the study. The average age of the patients was 45.7 ($\pm$ 14.35) years. Pelvic fractures were detected in 9 (69.2%) patients due to motor vehicle accidents and in 4 (30.8%) patients due to falls. Macroscopic hematuria was present in 8 (61.5%) of the patients, and the bladder was palpable in 3 (23%). There was pelvic fluid collection on abdominal computed tomography in 1 patient (7.6%). It was determined that 9 (69.2%) of the patients received conservative treatment consisting of continuous bladder drainage and antibiotic prophylaxis, and 4 (30.8%) received surgical intervention. It was stated that trauma caused pathology in the bladder neck in 1 patient.

Conclusions: The majority of extraperitoneal bladder ruptures are associated with pelvic fracture. hematuria, abdominal pain, and difficulty urinating may occur. Bladder rupture resulting from pelvic fractures is rare; due to the high mortality rate, early recognition of signs and symptoms can be lifesaving.

Opaque material extravasation in cystography taken due to bladder rupture



Keywords: hematuria, trauma, bladder



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Retrospective Analysis of Patients Aged 65 and Over Who Presented to the Emergency Department with Gastrointestinal System Bleeding and Had Endoscopy or Colonoscopy

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Background and aim: The aim of our study is to evaluate the clinical and prognostic features of patients aged 65 and over who applied to our emergency department (ED) with acute gastrointestinal (GI) bleeding and underwent endoscopy and/or colonoscopy.

Methods: The data of patients with the complaint of GI bleeding and underwent endoscopy and/or colonoscopy were obtained from the electronic medical record system between the days January 2020-2023.

Results: The mean age of the total 371 patients (186 women, 185 men) was 78.2 ± 7.8 years. Upper and lower GI bleeding was detected in a total of 309 and 62 patients, respectively. While 127 patients underwent massive transfusion in the ED, 207 patients were admitted to intensive care. The one-month mortality rate was found to be 13.5% (50/371 patients). Warfarin use ($p=0.016$), presence of melena ($p<0.001$), upper GI bleeding (compared to lower GI tract, $p=0.034$) and duodenal ulcer ($p=0.009$) were associated with the need for massive transfusion. The frequency of atrial fibrillation ($p=0.038$) and heart failure ($p=0.002$), the median number of comorbid diseases ($p=0.009$), warfarin use ($p=0.012$), the presence of hematemesis ($p=0.043$) and the presence of upper GI bleeding (compared to lower GI tract, $p=0.033$) were found to be high, while mean hemoglobin ($p<0.001$) and albumin ($p<0.001$) levels were found to be low in patients with intensive care admission compared to those without. The presence of cirrhosis ($p=0.006$), esophageal variceal bleeding ($p<0.001$) and prolonged hospitalization ($p=0.026$) were shown to be associated with one-month mortality. The increase in BUN/albumin ratio, CRP/albumin ratio and neutrophil/lymphocyte ratio measured at the first admission was shown to be related to one-month mortality.

Conclusions: In conclusion, acute GI bleeding in geriatric patients is characterized by high morbidity and mortality rates. Although the presence of multiple comorbid diseases is an important factor determining prognosis in this group, warfarin use may be associated with massive bleeding.

Keywords: Hematemesis, melena, geriatrics, endoscopy, colonoscopy



Ref No: 8287

Pub No: S-178

CTP, MELD, MELD/Na SCORES AS MORTALITY PREDICTORS IN CIRRHOSIS RELATED EMERGENCY COMPLICATIONS

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Background and aim: Many prognostic scores have been used for predicting prognosis in patients with end-stage liver disease. The modified Child-Turcotte-Pugh (CTP) score, the Model for End-Stage Liver Disease (MELD) score and MELD/Na scores are prognostic scores for assessing the prognosis of cirrhosis. In this study, we investigated the effect of CTP score, MELD score, MELD/Na score, which are prognostic models used on mortality to determine the prognosis of patients with cirrhosis in emergency department (ED).

Methods: In our study, the data of patients who were treated in ED due to liver cirrhosis between January 2011 and December 2015 were evaluated retrospectively. The demographic characteristics, vital signs, laboratory results and history were recorded in a common excel. The patients were divided into groups according to their mortality.

Results: According to the MELD score, the low MELD scores group according to their electrolytes, a statistically significant relationship was found in the mean of Na, K, and HCO₃ compared to the high MELD scores group ($p=0.000$, 0.024 , and 0.046). In addition, the CTP average of the patient group with a low MELD/Na score was 5.6, while the CTP average of the patient group with a high MELD/Na score was 8.05, and a statistically significant relationship was found between the two scores ($p=0.000$). When we evaluated the patient groups comparatively according to the mortality status CTP, MELD score and MELD/Na scores were found to be effective in predicting mortality ($p<0,05$).

MELD score



	Meld Score		
	10-20	≥20	P Value
Age	56	61	0,040
Bilirubin	0,3	2,6	0,000
Albumin	3,2	2,4	0,003
INR	0,6	1,3	0,000
Na	141	133	0,000
K	3,8	4,1	0,024
Cl	109,6	106,9	0,063
Ca	8	8,1	0,724
Creatinin	0,3	1,1	0,001
BUN	15,8	4,8	0,000
pH	7,3	7,3	0,946
HCO ₃	23	20	0,046
Laktat	1,3	2,2	0,096
MELD-Na	19	29	0,000
CTP	5,6	8	0,000

MELD score

MELD-Na score



	MELD-Na Score		
	<25	≥25	P Value
Age	56	61	0,040
Bilirubin	0,3	2,6	0,000
Albumin	3,2	2,4	0,003
PT	14,1	18,4	0,000
INR	0,6	1,3	0,000
Na	141	133	0,000
K	3,8	4,1	0,024
Cl	109,6	106,9	0,063
Creatinin			
BUN	15,8	4,8	0,000
pH	7,3	7,3	0,946
HCO3	23	20	0,046
Laktat	1,3	2,2	0,096
CTP	5,6	8	0,000

MELD-Na score

CTP score



	CTP Score		
	Child A-B	Child C	P-Value
Age	58	62	0,092
Bilirubin	0,04	3,3	0,000
Albumin	3,4	2,1	0,000
PT	143470	197900	0,000
INR	0,8	1,5	0,000
Na	136	133	0,000
K	3,9	4,1	0,071
Cl	109	106	0,001
Ca	8,3	8	0,004
Creatinin	0,2	0,8	0,000
BUN	14,7	36	0,000
pH	7,32	7,33	0,650
HCO3	22	20	0,017
Laktat	1	2,4	0,001
MELD-Na	17,3	25	0,000

CTP score

Conclusions: As a result, we believe that similar to the studies conducted in our study, CTP, MELD and MELD-Na scores are effective as mortality predictors and that using these scoring systems according to the evaluation of individual laboratory findings in the follow-up of critical cirrhosis patients in EDs may also help in making decisions about early hospitalization and discharge of patients.

Keywords: CTP, MELD, MELD/Na, MORTALITY, CIRRHOSIS



Ref No: 8376
Pub No: S-182

Analysis of Steven Johnson and Toxic Epidermal Necrolysis Cases Monitored in Dermatology Clinic

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Background and aim: The objective of this study is to analyze the clinical characteristics, diagnostic procedures, and treatment methods used for patients with Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) who were monitored and treated at the dermatology clinic.

Methods: This study was designed as a retrospective observational study. The study comprised instances of SJS and TEN that were monitored in the dermatology clinic from December 2021 to August 2022.

Results: The study covered a total of 12 patients (6M,6F). Upon analyzing the primary disorders, the following percentages were observed: Epilepsy in 25.0% (n=3) of the cases, tonsillitis in 25.0% (n=3), pneumonia in 16.7% (n=2), soft tissue infection in 8.3% (n=1), bronchiolitis in 8.3% (n=1), convulsion in 8.3% (n=1), and lumbalgia in 8.3% (n=1). (Figure 1) Upon examination of the responsible drugs, it was found that Lamotrigine/Valproic Acid accounted for 16.7% (n=2) of cases, Azithromycin for 8.3% (n=1), Gergaline for 8.3% (n=1), Ibuprofen for 8.3% (n=1), Lamotrigine for 8.3% (n=1), Meronem for 8.3% (n=1), Oxcarbamazepine for 8.3% (n=1), Paracetamol for 8.3% (n=1), Cefuroxime Axetil for 8.3% (n=1), Ciprofloxacin for 8.3% (n=1), while the responsible drug remains unknown in 8.3% (n=1) of cases. Upon examination of mucosal involvements, it is observed that 66.7% (n=8) are oral, whereas 33.3% (n=4) are both oral and genital. The Scortten scale scores of the cases varied between 2 and 3, with an average of 2.58 ± 0.52 and a middle value of 3; 41.7% (n=5) had a score of 2 and 58.3% (n=7) had a score of 3.

Conclusions: An analysis revealed that 66.7% of the cases included the oral mucosa, whereas 33.3% involved both the oral and vaginal mucosa. This discovery suggests that SJS and TEN have a wide-ranging impact that involves damage to the mucous membranes. Involvement of the mucosal tissues in the mouth and genital areas.

Keywords: Steven Johnson syndrome, toxic epidermal necrolysis



Ref No: 8393
Pub No: S-218

The Relationship of Modified Glasgow Prognostic Score with Mortality in Pneumonia

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Background and aim: Community-Acquired Pneumonia continues to be a global cause of frequent emergency department visits and the most common hospitalization. The risk of mortality increases especially in elderly patients and those with comorbid diseases. Therefore, various scoring systems have been developed to predict prognosis in pneumonia patients. The aim of this study is to examine the effect of Modified Glasgow Prognostic Score (mGPS) on hospitalization status and mortality in pneumonia patients and to compare it with Pneumonia Severity Index (PSI) in mortality prediction.

Methods: This study retrospectively analyzed the data of patients diagnosed with pneumonia for one month in December 2023. The mGPS and PSI scores of the patients were calculated, hospitalization status (ward/intensive care) and mortality were recorded.

Results: Of the 55 patients included in the study, 63.6% were male. The mean age of the patients was 65.5. 38.2% of the patients were admitted to the ward and 43.6% to the intensive care unit. In addition, 16.4% died within 30 days. Of those who died, 77.8% had a PSI score above 130 and a mGPS score of 2. It was determined that as the mGPS score increased, the rate of intensive care admission and mortality rates increased significantly. Both mGPS and PSI showed a significant correlation in predicting mortality. PSI predicted mortality more successfully (AUC PSI: 0.82; AUC mGPS: 0.78).

Conclusions: PSI and mGPS scores can be used to predict mortality in pneumonia patients. Although PSI is a stronger predictor of mortality, mGPS is more strongly associated with hospitalization status.

Keywords: Community-Acquired Pneumonia, Mortality, Modified Glasgow Prognostic Score



Ref No: 8508
Pub No: S-138

INVESTIGATION OF THE DIAGNOSTIC VALUE OF ULTRASOUND IN THE DETECTION OF FOREARM FRACTURES IN PEDIATRIC AGE POPULATION REGISTERING TO THE EMERGENCY DEPARTMENT

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Background and aim: Child forearm trauma is one of the most common reasons for admission to the emergency department trauma unit. Our aim in our study is to investigate the diagnostic value of ultrasonography compared to direct radiography in the detection of forearm fractures in children aged 2-15 years whose bone development is not fully formed.

Methods: In our prospective, observational, and single-center study, we compared the data obtained from direct radiography and USG results of those who applied to Kayseri City Hospital using statistical methods.

Results: A total of 87 patients, 60 boys and 27 girls, were included in the study. While fractures were detected in 69 patients, no fractures were observed in 18 patients. 47 of these fractures were only radius, 20 of them were radius and ulna, and 2 patients had only ulna fractures. On USG, we could not detect 3 radius fractures, 1 of which was displaced and 2 of which were nondisplaced. The sensitivity rate of USG for radius-displaced fractures was 96.67%, and the selectivity rate was 100%. Sensitivity was 94.59%, and selectivity was 100% for radius nondisplaced fractures. On USG, we could not detect 3 ulna fractures, 1 of which was displaced and 2 of which were nondisplaced. The sensitivity rate of USG for ulna-displaced fractures was 94.11%, the selectivity value was 100%, and the overall accuracy was 98.85%. For ulna nondisplaced fractures, the sensitivity coefficient was 60%, the selectivity coefficient was 100%, and the overall accuracy rate was 97.70% (Table 1 and Figure 1).

Fracture images in USG

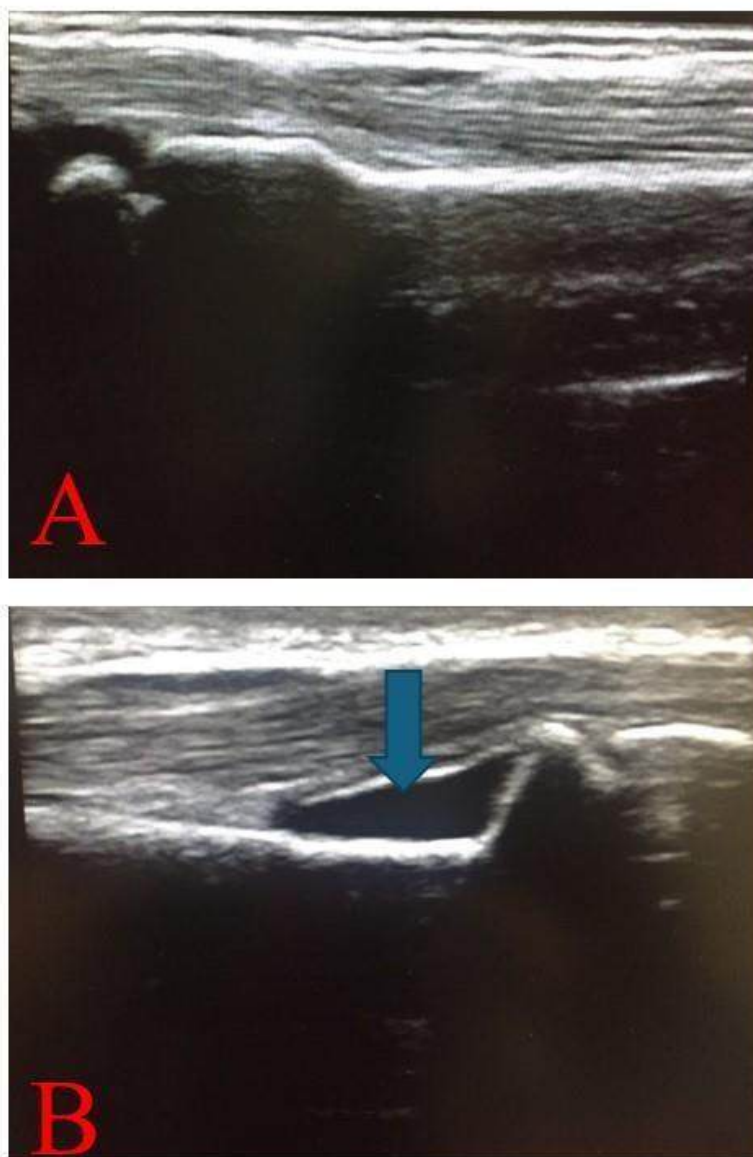


Figure 1

Table 1

	True Positive	True Negative	False positive	False negative
Radius Nondisplaced	35	50	2	0
Ulna Nondisplaced	3	82	2	0



Radius displaced	29	57	1	0
Ulna displaced	16	70	1	0

Comparison of Ultrasound with Direct Radiography

Conclusions: The predictive power of USG in direct radiography results in pediatric forearm trauma was found to be extraordinary. As emergency medicine physicians gain clinical and USG experience, we think that USG may be a more useful, radiation-free, and inexpensive diagnostic tool in detecting forearm trauma in children.

Keywords: Ultrasonography, Forearm Fracture, Pediatric Population, Emergency Room



Ref No: 8540
Pub No: S-173

Determination of the appropriate location of needle decompression application in the treatment of tension pneumothorax using bedside ultrasonography in healthy volunteers with a body mass index over 30

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Background and aim: Tension Pneumothorax (TPT) can lead to life-threatening complications. Without prompt decompression, rapid deterioration can occur. There is ongoing debate about the optimal site for needle decompression due to a high treatment failure rate. This issue is even more complex in obese patients, and there is a lack of sufficient literature on the subject. Our study aimed to evaluate the distance to reach the pleura between the 2nd intercostal space (ICS) along the mid-clavicular line (MCL) and the 5th ICS along the mid-axillary line (MAL) using ultrasound to determine the appropriate location for needle decompression in obese patients with TPT.

Methods: The study was designed as a prospective study. Healthy volunteers with a Body Mass Index (BMI) ≥ 30 were recruited to the study from the Emergency Department at Health Sciences University Kocaeli Derince Training and Research Hospital and, Kocaeli City Hospital. Participants age, gender, comorbid conditions, height, weight, BMI, vital signs, and skin-pleura distances observed by three different practitioners from two separate locations were recorded in the study form.

Results: In our study, data from 91 subjects with ages ranging from 23 to 93 were evaluated. The mean BMI of the subjects was 36.8 ± 4.9 . Practitioners' measurements for MCL had a mean of 28.35 ± 3.66 , while measurements for MAL had a mean of 29.43 ± 3.69 . In all three practitioners' measurements, MCL was significantly shorter than MAL. Measurements taken by the practitioners in both positions were consistent with each other. In both positions, a significant increase in skin-pleura distance was observed with increasing BMI.

Conclusions: The needle decompression procedure, used in the treatment of TPT, can be performed at the 2nd ICS along the MCL in individuals with a BMI ≥ 30 . Point-of-care ultrasound aimed at the bedside target should be employed in the needle decompression procedure due to its ease of accessibility and simultaneous use convenience.

Keywords: needle thoracostomy, obesity, tension pneumothorax, body mass index, point-of-care ultrasound



Ref No: 8548
Pub No: S-196

A RETROSPECTIVE ANALYSIS OF 16 AORTIC DISSECTION CASES

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Background and aim: Acute aortic dissection, a rare but catastrophic condition, involves intimal tearing and blood entering between aortic layers. This leads to high mortality, with most patients dying before hospital arrival. In this study, we conducted a retrospective analysis of aortic dissection cases presented to our hospital.

Methods: This descriptive, cross-sectional study. Cases of aortic dissection presented to our hospital in 2022-2023 were evaluated. The cases were analyzed in terms of age, gender, comorbidities, symptoms, dissection type, affected aortic branches, treatment modality (surgical/medical), ICU admission, complications, and in-hospital mortality.

Results: The dataset consisted of 16 cases, with an average age of 62.7 years (range:28-88).Of the cases, 75% (n=12) were male. The most common symptoms were abdominal pain (n=5), nausea-vomiting, followed by back and lumbar pain (n=4), paraplegia(n=3) and syncope(n=3), leg pain(n=2), and dyspnea (n=2). Seizure, hematemesis, dizziness, and sweating were also observed. Hypertension was the most frequent comorbidity (56.25%). Half of the cases had multiple comorbidities, 18.75% had a history of aortic aneurysm, and 31.25% had no known comorbidities. Two patients had prior aortic surgery, and one had a history of dissection. Dissection types were as follows: 50% had type IIIB, 37.5% had type I, and 12.5% had type IIIA. Medical treatment was administered in 56.25% of cases. The in-hospital mortality rate was 31.25% (n=6), with type I aortic dissection in 83.34% (n=5) of deaths, and one case of type IIIB. Only one fatal case had elevated troponin levels.

Conclusions: Our study shows that, although aortic dissection is commonly associated with the elderly, it can also occur in younger populations (cases aged 28 and 29) and present with a wide range of symptoms. In our study, the most frequently observed dissection type was Stanford B (DeBakey IIIB). Additionally, the majority of fatalities involved type I dissection, highlighting the significance of intimal tear location in prognosis.

Keywords: Aortic dissection, Stanford, De Bakey, mortality, urgent surgery



Ref No: 8565
Pub No: S-194

Preliminary Analysis of Severe Hyponatremia in the ED: Demographic and Outcome Characteristics

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Background and aim: Hyponatremia, defined as a serum sodium concentration below 135 mEq/L, is a common electrolyte imbalance with significant clinical consequences. Severe hyponatremia, defined here as serum sodium below 110 mEq/L, is less common but poses substantial risks. This study investigates the demographic, clinical, and outcome characteristics of patients with extremely low sodium levels presenting to the Emergency Department (ED).

Methods: A retrospective, single-center study was conducted at Muğla's ED from January 1, 2019, to January 1, 2023. The study included patients aged 18 and older with serum sodium <110 mEq/L. Data on age, sex, symptoms, comorbidities, laboratory results, key outcomes, length of hospital stay, and all-cause mortality were collected. The qSOFA score was used to assess severity.

Results: The study included 53 patients with a mean age of 70.8±15.6 years. Of these, 29 patients (54.7%) survived and 24 patients (45.3%) died. Mortality was significantly associated with older age (mean age of deceased: 75.5±12.4 years vs. survivors: 66.9±17.0 years, $p = .046$). Decreased consciousness was the most common symptom (58.5%), followed by seizures (7.5%). COVID-19 was a factor in 13.8% of cases. Higher qSOFA scores and Charlson Comorbidity Index (CCI) scores were linked to increased mortality (qSOFA: $p = .028$; CCI: $p < .001$). Survivors had a longer hospital stay (9.4±7.8 days) compared to non-survivors (6.5±4.7 days), though this difference was not statistically significant ($p = .247$).

Conclusions: Extremely low sodium levels represent a life-threatening condition, particularly in older adults with comorbidities and those at risk of sepsis. The qSOFA and CCI scores are valuable for assessing prognosis and guiding management. Continued research is necessary to improve diagnostic and treatment strategies, especially considering the ongoing impact of COVID-19.

Keywords: Severe Hyponatremia, qSOFA, Emergency Department

Ref No: 8592
Pub No: S-181

Percutaneous balloon kyphoplasty and vertebroplasty in acute, osteoporotic, and pathological vertebral fractures: a retrospective analysis of 150 patients.

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Background and aim: Vertebral fractures are one of the leading causes of admission in emergency departments. The aim of this study was to evaluate the radiological, clinical and functional outcomes of patients with thoracic and lumbar compression fractures treated with balloon kyphoplasty (KP) and vertebroplasty (VP).

Methods: Between 1 January 2014 and 2021, patients with acute, osteoporotic and pathological vertebral fractures treated with percutaneous VP and CP were retrospectively reviewed after approval of the institutional review board. Preoperative and postoperative visual analogue scale (VAS) and Oswestry disability index (ODI), operation time, hospital stay, radiological vertebral fracture levels, cement volume used and cement leakage rates were evaluated and compared for clinical outcomes. Statistical significance was accepted as $p < 0.05$.

Results: During the study period, 120 kyphoplasty and 109 vertebroplasty procedures were performed on 229 fracture levels in 150 patients. The mean age was 67 years (M-F, 63-71 years) in the VP group and 68 years (M-F, 59-72 years) in the CP group and 63% of all patients were female. 23 patients with acute fractures, 196 osteoporotic patients and 10 patients with pathological fractures were included in the study. There was a significant difference between preoperative and postoperative clinical scores in all three study groups ($p < 0.05$). Acute and osteoporotic fractures were mostly at the thoracolumbar junction (T11-L1), while pathological fractures were mostly between T6-12. The operation time was longer in kyphoplasty (45 vs 37 min) and the hospital stay was higher in VP (1.5 days vs 2.1 days). The amount of cement applied was higher in the KP group (5.4 ml vs 7.1 ml) and the cement leakage rate was higher in VP (9% vs 3%).

Figure 1. Radiological images before and after kyphoplasty and vertebroplasty in patients with acute and osteoporotic fractures.



a. 54 years old female patient Lumbar MR sagittal plane, L1 acute compression fracture on STIR sequence, b. cement leakage into the disc space during vertebroplasty procedure, c. cement appearance in L1 corpus on lumbar MR T2

sequence, d. 88 years old male patient L3 osteoporotic fracture on lumbar MR T2 sequence, L3 vertebrae elevated with kyphoplasty balloon, e. cement appearance in L3 vertebra on lumbar sagittal CT.

Figure 2: Radiological images of patients with pathological vertebral compression fractures.



a. A 58-year-old female patient with breast cancer and hypointes metastatic spine involvement at T7 and L1 levels in thoracic MR T1 (white arrow). B. Appearance of vertebroplasti cement at T12 in lumbar direct radiograph of the same patient. c, Pathological compression fracture at T12 in lumbar MR T2 sequence MR of 47 years old male patient with lymphoma, d, Appearance of cement in lumbar CT sagittal plane after kyphoplasty of the same patient and mild epidural cement leakage (white arrow)

Figure 3. Vertebral fracture levels (Y axis) and number of patients with osteoporotic, acute and pathologic vertebral compression fractures (X axis).

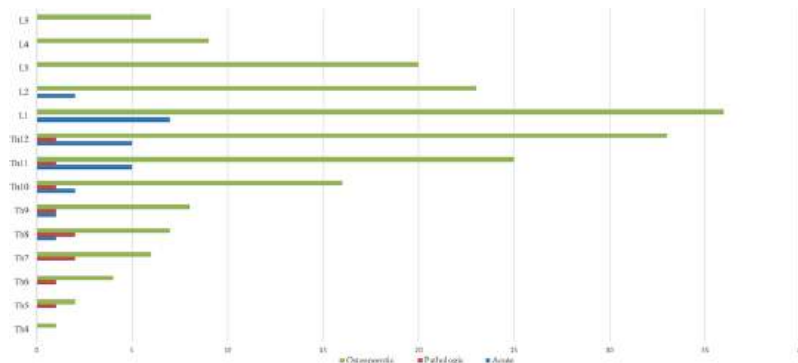


Table 1.

	Acute Group (n=23)		Osteoporotic Group (n= 196)		Pathologic Group (n= 10)	
	Vertebroplasty	Kyphoplasty	Vertebroplasty	Kyphoplasty	Vertebroplasty	Kyphoplasty
No. of Vertebral Level	5	18	101	96	3	6
Age (mean) (yr)	61	60	65	63	68	71
Female	3	11	53	56	1	4
Man	2	7	48	40	2	2



No. of 2 or more treatment sessions	1	2	8	17	0	4
Median follow-up period (mo.)	13	21	18	24	13	4
VAS						
Preoperative	7.4± 1.2	8.6± 1.6	8± 1.4	8±1.4	9± 0.8	8.6±0.8
1.mo.	2.4± 1.1	2.8± 1.1	2.5±1.5	2± 1.3	5.7± 1.8	6±1.7
6 mo.	1.4± 0.7	1.5±1.3	1.8±1.4	1.5± 1.4	4.2± 1.0	4.6±0.9
12 mo.	1± 0.5	0.5± 0.3	1.2±1.1	1.1± 0.8	4.2± 1.9	3.1±1.5
ODI						
Preoperative	39± 20	43± 16	46±13	49±18	73± 16	71±17
1.mo.	33±6	25±12	35±14	32±12	48±9	57±11
6 mo.	20±8	18±10	33±10	28±16	53±8	49±8
12 mo.	22±9	20±11	28±5	20±7	46±10	44±9
Operating Time (Min.)	36±6	45±8	34±9	47±13	42±10	43±14
Length of hospital stay (Day)	2.1 ±0,4	1.8±0.7	1.9±0.4	1.5±0.2	2.2±0.2	1.7.±0.8
Cement volume (ml)	4.8±1.2	6.9±0.9	5.7±1.2	7.4±0.7	5.8±1.4	7.0±0.8
No. of Cement leakage	0	1	7	2	1	1

Comparison of vertebroplasty and kyphoplasty results according to groups.

Conclusions: Percutaneous kyphoplasty and vertebroplasty are effective methods in the treatment of vertebral compression fractures and can rapidly relieve pain in patients.

Keywords: Vertebral fractures, Kyphoplasty, Vertebroplasty, Clinical outcomes, Minimally Invasive Surgery



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Pub No: S-210

Relationship between eosinophil count and mortality in emergency hemodialysis patients

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Background and aim: Chronic kidney disease and acute kidney injury are global healthcare problems. Renal replacement treatments, such as hemodialysis, are performed regularly in an emergency setting to treat these conditions. Predicting the outcomes of these patients can help physicians shape their treatment plan. Eosinophils have been shown to play an important role in the inflammatory response. Recent studies also show that they may play a role in endothelial function. Previous studies have shown that using the peripheral eosinophil count (EOC) could be effective in tracking the prognosis of patients receiving hemodialysis. In our study, our aim was to provide an outlook on the correlation of mortality and EOC alongside other laboratory parameters.

Methods: We analyzed the data of 823 selected patients who received emergency hemodialysis treatment in our dialysis unit between the dates 01/01/2020 and 01/04/2022. Data analysis was performed using the IBM SPSS 27.0 statistical package program.

Results: We have found increased serum levels of lactate and potassium in addition to increased white blood cell count and neutrophil count in the mortality group. We have also found decreased levels of EOC and lymphocyte count along with decreased serum creatinine and sodium levels in the mortality group.

Conclusions: Chronic Kidney Disease and acute kidney injury are significant causes of morbidity and mortality. While EOC can provide a limited outlook on their short-term mortality rate, more large-scale studies are needed to establish this connection.

Keywords: Eosinophil, Emergency Hemodialysis, Renal Failure, Mortality



Ref No: 8792
Pub No: S-151

Impact of Early Analgesia and Sedation Levels on Clinical Outcomes in Mechanically Ventilated Patients in the Emergency Department and ICU

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Background and aim: Patients undergoing mechanical ventilation often experience pain due to various adverse conditions such as immobility, infections, and invasive procedures. The aim of our study is to determine the levels of pain and sedation in adult patients intubated in the emergency department (ED) after stabilization, and to compare these levels with those after admission to the intensive care unit (ICU).

Methods: This study is a single-center, prospective, observational study conducted between March 2023 and March 2024, encompassing patients undergoing invasive mechanical ventilation and followed in the ED and the ICU. The primary outcome measure of our research is the comparison of pain levels of mechanically ventilated patients in the ED after stabilization and during ICU follow-up, assessed using the Critical Care Pain Observational Tool (CPOT). Secondary outcome measures include investigating the impact of first 48 hours pain levels in the ED and ICU follow-up on 30-day mortality, comparing sedation levels in the ED and ICU follow-up using the Richmond Agitation-Sedation Scale (RASS), exploring the relationship between sedation levels and 30-day mortality.

Results: 608 patients were screened after endotracheal intubation (ETI), and a total of 327 patients were included in the study. A statistically significant difference was found when comparing pain levels measured 1-2 hours after ETI in the ED (CPOT-1) with pain levels measured within the first 48 hours after ICU admission (CPOT-3) ($p < 0.001$). Similarly, a statistically significant difference was found when comparing pain levels measured 2-8 hours after ETI in the ED (CPOT-2) with CPOT-3 results ($p < 0.001$). A significant relationship was observed between the CPOT-2 score and mortality ($p = 0.049$).

Conclusions: Establishing a direct relationship between CPOT measurement and mortality is challenging. However, in the mild sedation group, measured as RASS = -2, -1, 0, survival is 2.5 times higher compared to patients who received deep sedation.

Keywords: Mechanical ventilation, analgo-sedation, pain managements, intensive care, emergency department



Ref No: 8827
Pub No: S-152

The Use of Lactate Level/Serum Albumin Ratio as a Mortality Marker in Patients Presenting to the Emergency Department with Acute Heart Failure

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Background and aim: Heart failure (HF) has a significant impact on mortality rates worldwide and is linked to high rates of hospitalization and readmission. Nevertheless, there is no established criterion for the discharge of these patients from the emergency department. This study aims to assess the utility of the lactate/serum albumin (L/A) ratio in predicting 30 and 90-day mortality, as well as the likelihood of hospital readmission within 30 days, in patients presenting to the emergency department with heart failure symptoms.

Methods: This prospective, cross-sectional cohort study consecutively included patients who were diagnosed with heart failure in the emergency department. The study evaluated the correlation between the L/A ratio and 30- and 90-day mortality, as well as the rate of hospital readmission within 30 days. Receiver operating characteristic (ROC) analysis was conducted to assess the predictive accuracy of the L/A ratio.

Results: A total of 410 participants were included in the study. The L/A ratio was identified as a significant predictor of 30-day mortality. Using a serum L/A ratio threshold of ≥ 0.52 , the sensitivity for predicting 30-day mortality was 66.15%, the specificity was 53.04%, and the area under the curve (AUC) was 0.647. At a threshold of ≥ 0.61 , the AUC was 0.635, the specificity was 66.32% and the sensitivity was 56.3%. The L/A ratio and hospital readmission within 30 days did not show any statistically significant correlation.

Conclusions: The L/A ratio shows promise as a predictor of 30- and 90-day death in patients coming to the emergency department with heart failure. However, it was discovered to be an unreliable predictor of hospital readmission within 30 days.

Keywords: emergency departments, heart failure, lactate, albumin, mortality



Ref No: 8965

Pub No: S-216

DETECTION OF PATHOLOGY IN BRAIN IMAGING IN PEDIATRIC PATIENTS ADMITTED TO EMERGENCY DEPARTMENT WITH HEAD TRAUMA

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Background and aim: Head trauma, mostly minor, is a common cause of emergency department visits in childhood. Some clinical decisions have been published in the last few years to help determine the need for CT (computed tomography) in these patients.

Methods: NEU Faculty of Medicine, Department of Emergency Medicine We retrospectively analyzed the information of pediatric patients with head trauma who had sufficient file information within a 6-month period. Out of 901 admissions, brain damage was detected in 21 patients after imaging.

Results: 901 patients were included in the study. 299 of the patients were female and 602 were male. 901 patients underwent non-contrast brain CT. The mean age of the patients who presented with head trauma and underwent brain CT was 8.58 years. Brain CT was performed in 464 patients on physician-family initiative and in 438 patients within the indication. Acute brain injury due to trauma was detected in 21 patients. Of the 21 brain injuries, 5 were imaged on physician-family initiative and 16 were imaged within the indication. Pathology was detected in 1.07% of patients who underwent imaging with physician-family initiative and in 3.65% of patients who underwent imaging within the indication. When we look at the literature, the rate of pathology detection in the images taken within the indication was 4.3% and 0.9% in the images taken with physician-family initiative.

Conclusions: Traumatic brain injury accounts for 70% of fatal childhood injuries. In the light of the information we obtained in our data review, acute pathology was not detected in most of the brain CTs performed with physician/family initiative. Even if the percentage of pathology detection is low in patients undergoing off-label CT scans, if the families of children who are recommended to undergo CT scans want to take the child home, it should be recommended that the family give written notification when leaving.

Keywords: BRAIN IMAGING IN PEDIATRIC PATIENTS



Ref No: 9040

Pub No: S-148

COMPARISON OF LACTATE APROCALCITONIN ELEVATIONS WITH BLOOD CULTURE GROWTH IN PATIENTS WITH SUSPECTED SEPSIS IN EMERGENCY DEPARTMENT

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Background and aim: For both sepsis and septic shock, intravenously antimicrobial therapy should be initiated as soon as possible after the diagnosis. Blood cultures, which are the gold standard in the diagnosis of bacteremia, should be obtained with the appropriate technique before antimicrobial treatment is initiated. Another strong recommendation is to taper antimicrobial therapy once the pathogen has been identified and sensitized or when clinical improvement is achieved. Since blood culture results take a long time, it is important to predict

Methods: This retrospective thesis study included patients who presented to the emergency department between November 01, 2020 and November 01, 2022, were older than 18 years of age, had a qSOFA score of 2 or higher, had blood cultures taken and were hospitalized

Results: There were 1165 patients who had blood cultures taken within two years, 87 patients with qSOFA score of $2 \geq$ who met the exclusion and inclusion criteria were included in the study. Of these patients, 45 (51.7%) were male and the mean age was 75.1 ± 15.1 years. Growth was observed in 55.2% of the cultures. There was no significant difference between the groups with and without culture growth in terms of age, gender and comorbidities ($p > 0.05$). Among these two groups, procalcitonin and lactate values among laboratory parameters were significantly higher in the group with culture growth ($p < 0.05$).

Conclusions: Since blood culture results take a long time, it is important to predict the causative agent in sepsis and initiate appropriate antimicrobial treatment. In our study, we found that procalcitonin and serum lactate levels were useful in predicting blood culture positivity and Gr (-) bacterial growth, but demographic findings, vital parameters and laboratory findings were not successful in predicting blood culture results.

Keywords: Blood Culture, qSOFA, Sepsis, Lactate, Procalcitonin



Ref No: 9050

Pub No: S-192

Assessing Bleeding in Patients: Evaluating the Role of Artificial Intelligence

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Background and aim: In the management of upper gastrointestinal(GI) bleeds, endoscopy plays a crucial role both diagnostically and therapeutically. The Glasgow Blatchford Score(GBS) is used to assess patients' need for endoscopy and is effective in identifying low-risk patients, although it has a high rate of false positives. We aim to use machine learning models to reduce unnecessary endoscopies in patients presenting to the emergency department(ED) with upper GI bleeding, thereby preventing the loss of resources and manpower through more accurate predictions with higher specificity.

Methods: Our study is retrospective, observational, cross-sectional, and analytical. Case group includes patients aged 18+ who presented to the ED with a preliminary diagnosis of upper GI bleeding and underwent endoscopy between January 1st, 2015, and August 1st, 2022. The goal is to determine the need for endoscopy in patients using machine learning models created with Python 3.9.0. Power analysis results indicated that a total of 1146 patients are required to detect a significant difference, and it was decided that 30% of these patients (343 cases), randomly selected, should be evaluated in an internal validation group, with machine learning modeling conducted on the remaining %70 (666 cases).

Results: When comparing the machine learning models we trained to detect patients with active bleeding - specifically the Gaussian Naive Bayes, Support Vector Machines(SVM), Random Forest(RF), and Logistic Regression(LR) models - with actual results, we identified a statistically significant relationship ($p=0.017$, $p<0.001$, $p<0.001$, $p<0.001$, respectively). However, between the K-Nearest Neighbor (KNN) machine learning model and the actual results, we did not find a statistically significant relationship ($p=0.241$).

Conclusions: From our active GI bleeding detection models, the high negative predictive values of the SVM, LR, and RF models indicate their success in correctly identifying patients without signs of active bleeding. We believe that models created with machine learning will detect cases of active GI bleeding.

Keywords: machine learning, endoscopy, artificial intelligence, upper gastrointestinal system bleeding, emergency medicine



Ref No: 9414
Pub No: S-202

RETROSPECTIVE ANALYSIS OF 40 PNEUMOTHORAX CASES

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Background and aim: Pneumothorax is a critical emergency that can cause rapid mortality. Its role as a reversible cause of cardiac arrest highlights its importance. We retrospectively reviewed pneumothorax cases.

Methods: In our study, 40 adult patients with pneumothorax presented to our hospital between 2022-2023 were included. The cases were analyzed for age, sex, presence of trauma, trauma mechanism, associated injuries, comorbidities, hospitalization status, ICU requirement, and in-hospital mortality.

Results: The dataset comprised 40 cases. Of these, 65% (n=26) were spontaneous pneumothorax and 35% (n=14) were traumatic pneumothorax. The majority were male (n=37, 92.5%). The average age of the patients was 37.9 years. Except for 2 cases, all patients (95%) were hospitalized. Only a small proportion of cases (17.5%, n=7) required ICU care, and in-hospital mortality was observed in 7.5% (n=3) of cases. In traumatic pneumothorax cases, accompanying anatomical injuries included skin lacerations (15%, n=6), upper extremity injuries (12.5%, n=5), head and neck injuries (10%, n=4), facial injuries (7.5%, n=3), lower extremity injuries (5%, n=2), and pelvic injuries (2.5%, n=1). Trauma mechanisms comprised blunt trauma (25%, n=10), penetrating trauma (7.5%, n=3), and barotrauma in one case with a tracheostomy. Rib fractures were present in 20% (n=8) of traumatic pneumothorax cases, and hemothorax was detected in 5% (n=2) of the cases. The most frequently observed comorbidities were hypertension and lung cancer (n=3, 7.5%).

Conclusions: In patients with traumatic pneumothorax, the presence of additional injuries and high-energy trauma mechanisms, such as falls from height, increases the need for ICU and consequently raises in-hospital mortality. Pneumothorax secondary to clinical conditions like lung and laryngeal cancer also increases the need for ICU admission. Notably, our study found a significantly higher incidence of spontaneous pneumothorax in males. Overall, factors such as elderly, comorbidities, and severity of trauma are associated with higher rates of ICU admission and in-hospital mortality in pneumothorax cases.

Keywords: pneumothorax, spontaneous, trauma, ICU, lung cancer



Ref No: 9515
Pub No: S-191

Blood Pressure Variability in a Pig Model of Intracerebral Hemorrhage, Preliminary Study

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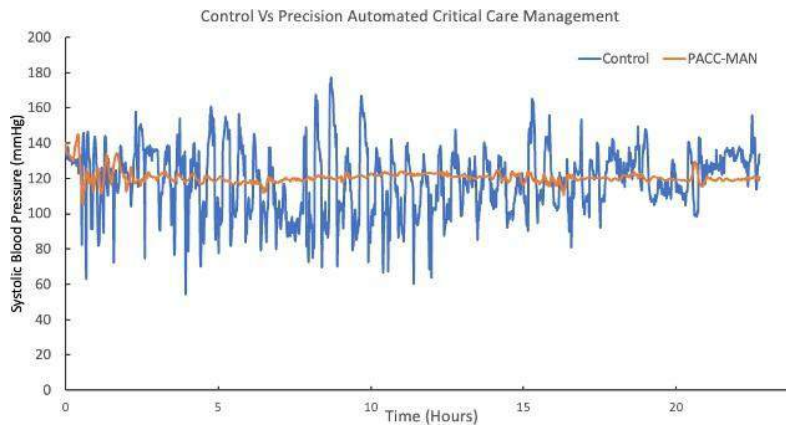
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Background and aim: There are limited therapies for patients suffering from an intracerebral hemorrhage (ICH). Multiple studies have demonstrated that blood pressure variability (BPV), the amount blood pressure fluctuates, is associated with worse outcomes in ICH patients. It is unknown if this is causative. We hypothesize that decreasing BPV through autonomous vasopressor management will reduce hemorrhage size and perihematomal edema in a pig model of ICH with BPV

Methods: Yorkshire swine weighing 50-55 kg were intubated and anesthetized. A burr hole was created in the skull. 900-1,350 units of collagenase were injected over 5 minutes 1 cm into the brain. An intracranial pressure (ICP) monitor was placed through the burr hole. Arterial and venous sheaths were placed in the femoral artery and vein. A REBOA balloon was inserted retrograde through the venous sheath into the proximal inferior vena cava. Cycling of inflation and deflation of the REBOA balloon changed venous return to cause blood pressure variability. Norepinephrine was titrated to maintain a systolic blood pressure (SBP) of 160 mmHg when the balloon was deflated. Inflation resulted in a SBP of 80-90 mmHg. The control group received 24 hours of BPV. The treatment group had an autonomous medication management system titrate vasopressors (clevidipine and phenylephrine) to overcome the BPV. After 24 hours, the pigs underwent MRI imaging of the brain prior to euthanasia.

Results: After injection of the collagenase, all pigs had an increase in ICP within 60 minutes. Control animals had a blood pressure of 119+/-23 mmHg. Treatment animals had a blood pressure of 120+/-3 mmHg. All animals had evidence of ICH with perihematomal edema on MRI imaging. The small sample size due to the pilot study did not allow for comparisons in hematoma size or extent of edema

Blood Pressure Graph



Conclusions: From this pilot study, we demonstrated that an automated medication management system is capable of decreasing BPV.

Keywords: Intracerebral Hemorrhage, Blood Pressure Variability



Ref No: 9517
Pub No: S-186

Evaluation of lactate clearance in patients admitted to the emergency department due to carbon monoxide poisoning.

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Background and aim: This study aimed to determine the blood lactate and lactate clearance (CL) levels of patients admitted to the emergency department with carbon monoxide (CO) poisoning and to determine the relationship between these levels, length of hospital stay, and treatment type.

Methods: This study was conducted as a retrospective study including patients admitted to the emergency department with CO poisoning between January 01, 2017 and March 1, 2024.

Results: The study included 169 patients. Patients with high blood lactate levels at admission had significantly longer hospital stays ($p=0.001$). Lactate levels >2.8 mmol/L were found to be predictive of hospital stays (AUC: 0.645, 95% CI: 0.567-0.717; 50.72% sensitivity, 76% specificity; $p<0.001$). Lactate levels were significantly higher in those receiving hyperbaric oxygen therapy (HBOT) ($p<0.001$). Lactate levels >2.8 mmol/L were found to be predictive of HBOT requirement (AUC: 0.705, 95% CI: 0.631-0.773; 63.89% sensitivity, 72.93% specificity; $p<0.0001$). The median CL levels of patients who received normobaric oxygen therapy (NBOT) and received HBOT were 35.29% (-50-89.06) and 35.28% (-31.58 -87.95), respectively, and CL was similar for both groups ($p: 0.596$). The median CL levels of patients with a hospital stay of ≤ 6 hours and >6 hours were 33.33% (-50-89.06) and 42.86% (-45-87.95), respectively, and no significant relationship was found between CL and length of hospital stay ($p: 0.051$).

Conclusions: While admission lactate levels are a usable parameter in clinical practice in predicting the length of hospital stay and determining the need for HBOT in patients with CO poisoning admitted to the emergency department, CL is useless.

Keywords: carbon monoxide poisoning, emergency department, lactate, lactate clearance, hyperbaric oxygen therapy



Ref No: 9599
Pub No: S-145

Preliminary study: A retrospective analysis of burn presentations in children under five years of age

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Background and aim: Burn injuries in children under five years old are a significant public health issue, with high morbidity and mortality rates. These injuries predominantly occur in domestic settings and are largely preventable. In Turkey, data on pediatric burns in this age group are limited. This study aims to analyze the demographic characteristics and etiological factors of burn injuries in children under five years old who presented to the Emergency Department of Muğla Training and Research Hospital. The goal is to provide insights that will help develop effective preventive strategies to reduce the incidence of these injuries.

Methods: This retrospective, single-center, observational study was conducted at the Emergency Department of Muğla Training and Research Hospital over a five-year period from July 1, 2019, to July 1, 2024. Data were collected from all pediatric patients aged five years and under who presented with burn injuries during this period. Comprehensive information on patient demographics, burn etiology, severity, and outcomes was extracted from medical records.

Results: The study included 329 pediatric patients, with 178 (54%) being male and 151 (46%) female. The mean age was 1.9 ± 1.1 years. Scald burns were the most frequent cause, accounting for 87.8% (n = 289) of cases. The upper extremities were the most frequently affected body parts, followed by the torso and lower extremities. The majority of burns were first- or second-degree, with only 1.5% (n = 5) being third-degree. The median Abbreviated Burn Severity Index (ABSI) score was 2.5 (range: 2–7), indicating a generally favorable prognosis. Approximately 47.1% (n = 155) of patients required hospitalization, and one mortality was reported.

Conclusions: The study confirms that male children are at higher risk for burn injuries, primarily from scalds. The findings highlight the need for targeted preventive measures and educational programs for caregivers to mitigate the risk of these preventable injuries.

Keywords: Burn, Children, Burn Severity Index



Ref No: 9712
Pub No: S-135

Emergency Department CT Scan Utilization and Findings in Geriatric Patients Presenting with Non-Traumatic Headache

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Background and aim: In geriatric patients, headache is a common reason for emergency department (ED) visits. Because secondary headaches are more common in geriatric patients than in younger patients, the former should be carefully excluded at presentation. In this study, we aimed to investigate the role of brain computed tomography (CT) in geriatric patients presenting to the ED with non-traumatic headache, the indications for imaging, the CT findings, and factors associated with detection of pathology.

Methods: Patients aged 65 years and older who presented to the ED with headache between January 1, 2023 and December 31, 2023, who underwent a brain CT scan, and who had complete data were included in the study. Patients with an intracranial mass, acute-subacute ischemic findings, intraparenchymal and subarachnoid hemorrhage, and cerebral edema on brain CT scan were considered as having significant pathology.

Results: The study included 384 patients. CT scan was normal in 61.2% of the patients and 10.4% had significant pathology. It was observed that 24.5% of the patients underwent CT scan for prolonged headache and 19.3% for severe headache. Logistic regression analysis showed that severe headache, loss of consciousness, anticoagulant use, neurological deficit, and elevated blood pressure at presentation were predictors of the detection of significant pathology on CT scan.

table 1

Gender, n (%)	253 (65.9)
Female	
Age, median (IQR ¹ , 25-75)	72 (68-79)
Comorbidities, n (%)	261 (68)
Hypertension	117 (30.5)
Diabetes mellitus	66 (17.2)
COPD ²	165 (43)
CAD ³	20 (5.2)

CKD ⁴	12 (3.1)
Malignancy	29 (7.6)
CVD ⁵	60 (15.6)
Other neurological diseases	
Diagnosed with primary headache	111 (28.9)
Migraine	6 (1.6)
GCS ⁶ , median (IQR,25-75)	15 (15-15)
Vital signs, median (IQR,25-75)	76 (72-85)
Heart rate	145 (135-160)
Systolic blood pressure	80 (73-89)
Diastolic blood pressure	36.1 (36.0-36.2)
Body temperature	
Patient outcome, n (%)	334 (87)
Discharged	50 (13)
Hospitalization	
Length of hospital stay, days	6 (4-7.2)

Demographic and clinical characteristics of the patients

tablo 2

CT findings	235 (61.2)
Normal	85 (22.1)
Atrophic changes	42 (11.7)
Encephalomalasic changes	26 (6.8)
Calcification	24 (6.3)
Acute-subacute ischemia	6 (1.6)

Intraparenchymal hemorrhage	5 (1.3)
Subarachnoid hemorrhage	4 (1)
Mass	3 (0.8)
Arachnoid cyst	2 (0.5)
Brain edema	
Significant pathology on CT	40 (10.4%)
Indications for CT scan	
Prolonged pain	94 (24.5)
Severe pain	74 (19.3)
Anticoagulant use	71 (18.5)
Vomiting	70 (18.2)
Dizziness	63 (16.4)
Syncope/loss of consciousness	40 (10.4)
Neurological deficit	29 (7.6)
Hypertensive encephalopathy	8 (2.1)
Fever	4 (1)
Reasons not found	12 (3.1)

The CT findings of the patients

Conclusions: In conclusion, 10.4% of geriatric patients presenting to the emergency department with headache have significant CT findings, and the impact of these findings on the emergency management of patients cannot be ignored. Incorporating these findings into clinical decision-making guidelines could improve the effectiveness of emergency management protocols by facilitating rapid and specific diagnostic interventions for geriatric patients presenting with headache.

Keywords: Brain CT, elderly, geriatric, headache



Ref No: 9751
Pub No: S-190

Malpractice Cases Related to Nephrolithiasis in Emergency Departments: An Analysis Based on Court of Cassation Rulings

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Background and aim: Medical malpractice is a significant concern in healthcare, requiring physicians to provide care according to medical standards. In malpractice cases, it must be proven that a physician's negligence caused harm. Urolithiasis is common in emergency departments, and diagnostic or treatment errors can result in lawsuits. This study examines nephrolithiasis-related malpractice cases in emergency departments based on Court of Cassation rulings, aiming to help physicians improve clinical practices and reduce malpractice cases within legal frameworks.

Methods: The Court of Cassation database was searched using keywords like "kidney stone," "ureter stone," "renal colic," "flank pain," and "emergency." Decisions were accessed anonymously and reviewed retrospectively until August 2024, evaluating their medical and legal characteristics. Ethical approval was not required as the data was publicly available.

Results: This study reviewed five medical malpractice cases evaluated by the Court of Cassation. Most cases involved general practitioners and centered on allegations of misdiagnosis or improper treatment. Although forensic evaluations identified errors in all cases, a definitive causal link between the error and patient harm was established in only one case. The local court rulings varied, with two acquittals, one conviction, and one rejected compensation claim. The Court of Cassation affirmed three rulings and reversed two, highlighting the significance of informed consent in medical practice.

Summary of Medical Malpractice Cases Evaluated by the Court of Cassation

Physician	Offense	Allegation of Medical Error	Explanation	Forensic Medical Opinion	Local Court Decision	Court of Cassation Ruling
General Practitioner	Negligent Homicide	Inappropriate Treatment	IM Dicloron, Anaphylaxis	Error found	Acquittal	

						Affirmed
General Practitioner	Negligent Homicide	Misdiagnosis	Gallbladder perforation	Error found		Reversed
General Surgeon	Negligent Homicide	Misdiagnosis	Rectal perforation	Error found	Acquittal	Affirmed
General Practitioner	Compensation	Inappropriate Treatment	IM Dicloron, Nerve damage	Error found		Reversed



					Rejected	
General Practitioner	Negligent Homicide	Misdiagnosis	Sepsis	Error found	Acquittal	Affirmed

Conclusions: These findings highlight the importance of accurate diagnosis and treatment in emergency settings, where specialized emergency physicians are crucial. Their expertise in managing acute conditions like kidney stones and sepsis reduces misdiagnosis and improves patient outcomes. This underscores the need for continuous improvement in diagnostic accuracy and care management to enhance patient safety. Additionally, obtaining informed consent remains a key legal and ethical requirement that can greatly influence malpractice case outcomes.

Keywords: malpractice, kidney stone, emergency, renal colic, court of cassation



Ref No: 9783

Pub No: S-208

Investigation of Treatment and Complications of Patients Presenting with Elevated INR Level

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Background and aim: Warfarin is commonly used for embolic prophylaxis, but overdose can cause life-threatening complications. This study examines the factors contributing to elevated INR levels in patients using warfarin, the complications arising during this process, and the treatments administered.

Methods: This study included 72 patients who presented to emergency department between September 1, 2022, and March 31, 2023, due to warfarin use and had an INR level above 5. Patients under 18, pregnant women, and those with bleeding disorders were excluded. The patients' age, gender, treatments applied, bleeding complications, control INR levels, causes accompanying warfarin overdose, hospitalization and discharge status, and hemogram and biochemistry values were analyzed.

Results: A total of 72 patients were included, with 62% (n=45) being female and an average age of 68.7 years. Bleeding-related complications occurred in 31 patients. Among those with complications, gastrointestinal bleeding was noted in 9 patients, hematuria in 7, soft tissue ecchymosis in 5, intracranial bleeding in 4, epistaxis in 3, and intramural hematoma in 2. Treatments included vitamin K for 14 patients, PCC for 7, fresh frozen plasma (FFP) along with vitamin K for 7, and FFP alone for 2. Reasons for warfarin overdose included acute renal failure in 11 patients, drug interactions in 4, and active infection in 2. The average INR level of the included patients was found to be 9.21. No statistically significant difference was detected between INR levels and the occurrence of complications or hospitalization/discharge status (p=0.941, p=0.27).

Table-1: Descriptive statistics

Laboratuary Parameter	Mean±SD
WBC(mm ³)	10.89 ±(4.66)
HB(g/dL)	10.63 ±(2.68)
HCT(%)	32.96 ±(7.62)
PLT(10 ³ /mm ³)	283.76 ±(85.21)
ALT(U/L)	72.76 ±(320.83)
AST(U/L)	143.34 ±(652.54)
BUN(mg/dL)	70.43± (56.78)
CREATININ(mg/dL)	1.48± (1.21)



Table-2: Relationship between INR level and development of complications and clinical outcome

	n (%)	INR (IQR)	p
Complication			
Yes	31	8.68 (5.08)	0.941
No	41	9.28 (5.13)	
Clinical Outcome			
Hospitalization	25	9.44 (4.80)	0.271
Discharge	47	8.09 (5.08)	

*Mann Whitney U testi

Conclusions: Reasons that cause irregularities in INR levels in patients using warfarin include drug interactions, impaired kidney functions, and hypermetabolic states. Consequently, complications such as intracranial bleeding, epistaxis, hematuria, gastrointestinal bleeding and intramural hematomas may occur. Patients under treatment should be alerted about adherence, dose adjustments, and potential drug interactions. Clinicians should keep in mind that dose adjustments are necessary when renal failure is detected.

Keywords: warfarin overdose, bleeding, renal failure



Ref No: 9896
Pub No: S-198

Comparison of Carotid Artery Doppler Flow Time and Inferior Vena Cava İndeks Evaluation with Forrest Classification in Upper Gastrointestinal System Bleeding

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Background and aim: Upper gastrointestinal (GI) bleeding is a common and serious health problem encountered frequently in emergency departments, with high morbidity and mortality rates. Rapid and accurate intervention is crucial in the management of these bleedings. Sonographic measurements such as carotid artery Doppler flow time and inferior vena cava indeks are non-invasive methods that can be quickly applied in the emergency department to indicate hemodynamic instability. This study aims to evaluate the relationship between these sonographic measurements and the endoscopic Forrest classification, thereby providing an effective diagnostic and therapeutic approach in the management of upper GI bleeding.

Methods: Our study, initiated with the approval of the ethics committee, is prospective, cross-sectional, and analytical in nature. Our case group includes patients aged 18 and over who presented to the emergency department. The aim was to compare bedside ultrasound measurements of carotid Doppler flow time, inferior vena cava (IVC) diameter, and collapsibility indeks with endoscopy to identify patients with active bleeding and volume deficit.

Results: In our study, 78 patients were examined. The average age of the participants was 47.19 ± 20.36 years, with 71.8% being male. Carotid Flow Time and IVC İndeks in patients with active bleeding were found to be statistically significantly higher. In the ROC analysis, a Carotid Flow Time of <289 predicted the development of active bleeding with 80% sensitivity and 94% specificity. In the ROC analysis, an IVC İndeks of <0.24 predicted the development of active bleeding with 60% sensitivity and 86% specificity.

Conclusions: This study indicates that bedside ultrasound is effective in evaluating the volume status and active bleeding status of patients presenting to the emergency department with gastrointestinal bleeding. The IVC İndeks can be used in the diagnosis and treatment processes of gastrointestinal bleeding patients. The Carotid Flow Time value is suitable for use in the diagnosis and treatment process.

Keywords: Upper gastrointestinal system bleeding, endoscopy, Inferior Vena Cava Collapsibility İndeks, Carotid Flow Time



Ref No: 9918
Pub No: S-176

Treatment Management of Patients Diagnosed with Bladder Injury Secondary to Pelvic Fractures

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Background and aim: Extraperitoneal bladder rupture is often associated with pelvic trauma. While 83% of patients with bladder rupture have a pelvic fracture, bladder rupture is observed in more than 10% of patients with pelvic fracture. While most intraperitoneal bladder injuries are repaired surgically, extraperitoneal bladder injuries can also be treated non-surgically. In this study, we aimed to retrospectively evaluate the treatment approaches, clinical characteristics and follow-up of patients who developed bladder trauma due to pelvic fracture in our clinic.

Methods: As a result of the examinations performed at Erzurum City Hospital Emergency Service between January 2021 and January 2024, a total of 13 patients who developed extraperitoneal bladder trauma due to pelvic fracture were included in the study. Demographic and clinical characteristics of the patients, laboratory and radiological examinations, procedures performed, patient files, visit and operation notes of the patients who underwent surgical treatment, and patient discharge reports were evaluated retrospectively.

Results: 13 patients were included in the study. The average age of the patients was 45.7($\pm$ 14.35) years. Pelvic fractures were detected in 9(69.2%) patients due to motor vehicle accidents and in 4(30.8%) patients due to falls. Macroscopic hematuria was present in 8 (61.5%) of the patients, and the bladder was palpable in 3(23%). There was pelvic fluid collection on abdominal computed tomography in 1 patient (7.6%). It was determined that 9(69.2%) of the patients received conservative treatment consisting of continuous bladder drainage and antibiotic prophylaxis, and 4(30.8%) received surgical intervention. It was stated that trauma caused pathology in the bladder neck in 1 patient.

Opaque material extravasation in cystography taken due to bladder rupture



Opaque substance extravasation in a patient who had a catheter inserted and cystography performed due to trauma

Conclusions: The majority of extraperitoneal bladder ruptures are associated with pelvic fracture. Macroscopic hematuria, suprapubic or abdominal pain, and difficulty urinating may occur. Bladder rupture resulting from pelvic fractures is rare; due to the high mortality rate, early recognition of signs and symptoms can be lifesaving.

Keywords: Trauma, Bladder, Hematuria



ORAL CLINICAL EXPERIMENTAL RESEARCH ORAL ABSTRACTS

Ref No: 1108

Pub No: S-157

A comparison of manual pulse palpation, carotid 2D ultrasonography, and end-tidal CO₂ to detect the return of spontaneous circulation

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Background and aim: It is essential to maintain continuous chest compressions with minimal interruption during the management of cardiac arrest. It is widely acknowledged that healthcare providers frequently take an excessive amount of time to look for a pulse and frequently encounter challenges in accurately determining its presence. Point-of-care ultrasound of the carotid artery has been suggested as a potential substitute technique for pulse checks. The aim of this study was to evaluate the effectiveness of manual pulse checks, 2D carotid ultrasonography, and rapid increases in end-tidal carbon dioxide levels in determining the return of spontaneous circulation (ROSC) in patients who experienced a cardiac arrest in an emergency department (ED).

Methods: The study was designed as a single-center, prospective, observational study. Non-traumatic adult patients in cardiopulmonary arrest who were brought to the ED were included. The pulses of these patients were assessed using three distinct methods. The team leader made the final decision on the presence of a pulse.

Results: The investigation included 102 cardiopulmonary resuscitation (CPR) events and 642 CPR cycles administered to 88 patients who suffered cardiopulmonary arrest. ROSC was achieved in 49 (55.7%) patients. Notably, 2D ultrasonography was the only method that detected ROSC in 6 (10.3%) patients, while none of the other methods were capable of independently detecting a pulse. The sensitivity of bedside 2D ultrasonography for detecting carotid pulse was found to be 94.8%, with a specificity of 100%.

Conclusions: This study suggests that 2D carotid ultrasonography can be effectively utilized for detecting pulses in patients suffering cardiopulmonary arrest.

Keywords: Ultrasonography, Capnography, Cardiopulmonary Resuscitation, Return of spontaneous circulation, Cardiopulmonary Arrest



Ref No: 1224

Pub No: S-184

Evaluation of patients presenting to the emergency department with ocular complaints

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Background and aim: Patients presenting to the emergency department with ocular complaints encompass a wide range of scenarios. In the emergency department, physicians should be capable managing conditions such as superficial foreign bodies in the eye, minimal corneal abrasions, photokeratitis, and conjunctivitis. Additionally, they must be able to distinguish between cases that require urgent ophthalmology consultation, such as serious ocular injuries and vision loss and initiate initial treatment for these conditions. This study aims to evaluate the necessity of ophthalmology consultation for patients presenting with ocular complaints.

Methods: Patients who presented to our emergency department from January 1 to June 30, 2024, were evaluated retrospectively. The diagnoses received by the patients and their outcomes (discharge from the emergency department, consultation, referral) were evaluated.

Results: Of the 346 patients, 35.2% presented with uncomplicated conjunctivitis, and these patients were discharged with a prescription. Additionally, 56.3% of our patients had complaints of simple corneal injury and superficial foreign bodies, of which 91.7% were evaluated and treated in the emergency department. A total of 8.5% of the patients were referred to an ophthalmologist. Among these patients, one presented with sudden vision loss suspected to be retinal artery occlusion, another had an orbital tumor pressing on the optic chiasm, and a third presented with orbital trauma following a kick from a horse. After stabilization in the emergency department, these patients were transferred to another hospital by an ophthalmologist.

Orbital tumor



Orbital trauma after horse kick



Conclusions: Since the ophthalmologists in our hospital work on an on-call basis, non-complicated eye complaints, which do not require advanced surgical intervention, can be managed in the emergency department. In our study, patients who were treated and discharged from the emergency department were followed up through the e-Nabız system, and no



need for repeat visits was observed. This indicates that sufficient and effective treatment was provided in the emergency department.

Keywords: Ocular emergencies, Ophthalmology consultations



Ref No: 1314

Pub No: S-144

Effect of the Leuko-Glycemic Index in Predicting Prognosis in Diabetic and Non-diabetic Patients with Acute Pulmonary Embolism

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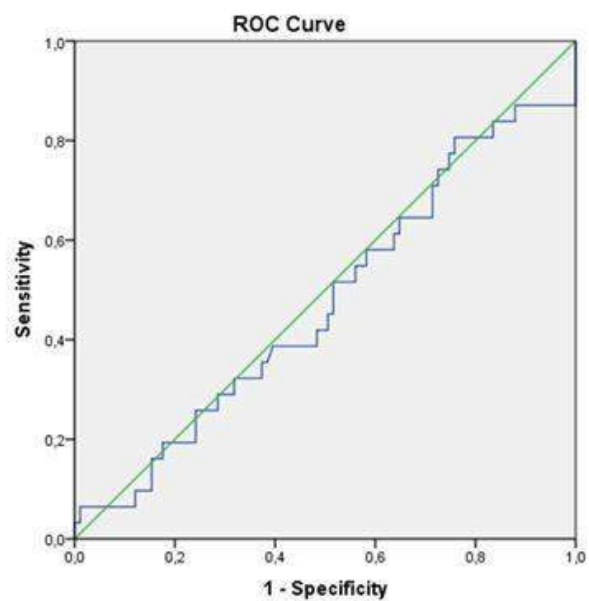
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Background and aim: Background: Acute pulmonary embolism (APE) stands as a significant cause of cardiovascular-related mortality worldwide, necessitating early detection and intervention. Previous studies have underscored the role of inflammatory markers and hyperglycemia in thrombus formation, prompting investigations into the prognostic value of the leuko-glycemic index (LGI), a combination of leukocytes and blood glucose levels. Aims: This study aimed to evaluate the prognostic significance of LGI in APE patients, differentiating between diabetic and non-diabetic cohorts.

Methods: Methods: A total of 199 APE patients were included, with LGI calculated from leukocyte and blood glucose levels upon admission. Patients were categorized into diabetic and non-diabetic groups, and their demographic, clinical, and laboratory characteristics were compared. The prognostic value of LGI for in-hospital mortality was assessed using receiver operating characteristic (ROC) curves.

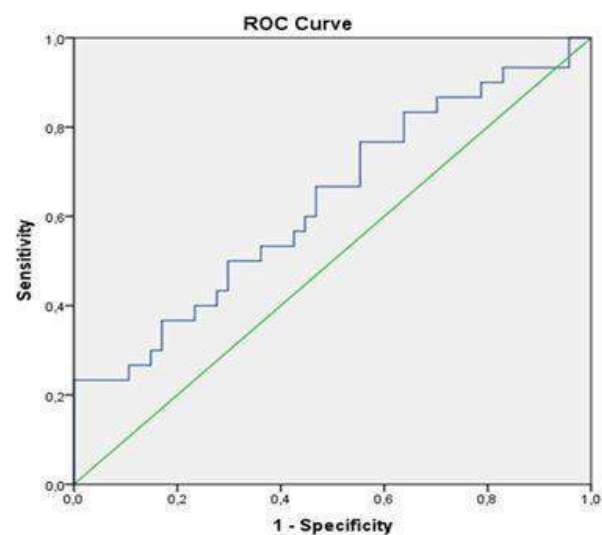
FIGUR1.A



A

A. ROC curve of the leuko-glycemic index (LGI) to predict first 30-day mortality in nondiabetic PTE patients.

FIGUR1.B



B

B. ROC curve of the leuko-glycemic index (LGI) to predict first 30-day mortality in diabetes PTE patients



Results: Results: Baseline characteristics revealed higher mortality rates, blood glucose, and comorbidities like hypertension and coronary artery disease in diabetic patients. LGI did not independently predict mortality in either diabetic or non-diabetic groups. However, a simple PESI ≥ 1 score emerged as a predictor of mortality in non-diabetic patients.

TABLE 1

		Diabetes Status		p
		Yes (n=77)	None (n=122)	
Demographic Data				
Women (%)		47 (61.0)	74 (60.7)	0.957
Age (year) mean ±SD		73.9 (11.5)	74.2 (14.6)	0.866
Medical CV (%)				
Hypertension		62 (80.5)	57 (46.7)	<0.001
COPD*		9 (11.7)	18 (14.8)	0.538
Coronary Artery Disease		26 (33.8)	21 (17.2)	0.007
Congestive Heart Failure		20 (26.0)	21 (17.2)	0.137
Symptoms (%)				
Dyspnea		64 (83.1)	103 (84.4)	0.807
Hemoptysis		0 (0)	1 (0.8)	0.426
Palpitations		6 (7.8)	8 (6.6)	0.740
Chest Pain		14 (18.2)	18 (14.8)	0.326
Syncope		8 (10.4)	9 (7.4)	0.459
Cough		18 (23.4)	38 (31.1)	0.235
Pretibial Edema		13 (16.9)	27 (22.1)	0.368
Vital signs median (IQR TM)				
Systolic Blood Pressure (mmHg)		110 (100, 123)	115 (110, 130)	0.207
Diastolic Blood Pressure (mmHg)		70 (60, 80)	70 (65, 80)	0.811
Heart Rate (beats/min)		85 (76, 91)	83 (75, 91)	0.704
SPO2 (%)		91 (87, 95)	92 (89, 95)	0.156
Laboratory Parameters (IQR)				
Glucose (mg/dL)	Normal:70-100 mg/dL	173.50 (123.25, 271.00)	134.00 (113.00, 156.00)	<0.001
Urea (mg/dL)	Normal:17-43 mg/dL	63.00 (45.25, 88.50)	53.00 (38.00, 96.00)	0.122
Creatinine (mg/dL)	Normal:0,67-1,17 mg/dL	1.02 (0.83, 1.29)	0.94 (0.72, 1.35)	0.008
GFR [†] (ml/min)	Normal:70-145 ml/min	57.38 (43.01, 79.61)	63.14 (81.60)	0.041
Sodium (mmol/L)	Normal: 136-146 mmol/L	137.50 (135.25, 140.00)	139.00 (137.00, 144.00)	0.053
Potassium (mmol/L)	Normal:3,5-5,1 mmol/L	4.50 (4.13, 4.80)	4.30 (4.00, 4.60)	0.006
AST [‡] (U/L)	Normal:0-50 U/L	17.50 (12.00, 29.00)	19.00 (12.00, 49.00)	0.466
ALT [§] (U/L)	Normal: 0-50 U/L	23.00 (16.25, 40.25)	23.00 (17.00, 61.00)	0.832

CRP ^{II} (mg/L)	Normal:0,00-5,00 mg/dL	52.14 (20.72, 173.38)	77.52 (25.72, 149.28)	0.820
D- dimer (ugFEU/L)	Normal :0-500 ugFEU/L	4595.00 (2335.00, 8217.50)	4780.00 (2980.00, 8400.00)	0.278
Troponin (µg/L)	Normal: 0,00-0,16 µg/L	69.35 (17.73, 206.63)	55.10 (20.20, 141.30)	0.261
Ferritin (µg/L)	Normal:13-150 µg/L	184.62 (103.39, 463.13)	149.28 (55.32, 364.68)	0.130
Blood pH	Normal: 7,35-7,45	7.39 (7.33, 7.43)	7.39 (7.34, 7.43)	0.714
Lactate (mmol/L)	Normal: 0,5-1,6 mmol/L	2.27 (1.80, 4.12)	2.20 (1.51, 3.20)	0.207
Hemoglobin (g/dL)	Normal:11-16 g/dL	12.05 (11.02, 13.78)	12.20 (11.30, 13.50)	0.822
Leukocyte (K/uL)	Normal: 0,8-4 K/uL	11.10 (8.50, 14.19)	10.80 (8.63, 13.82)	0.955
Neutrophil (K/uL)	Normal:2,0-7,0 K/uL	8.09 (6.14, 12.38)	8.83 (6.11, 11.20)	0.920
Lymphocyte (K/uL)	Normal:0,8-4 K/uL	1.27 (0.89, 2.56)	1.32 (0.74, 2.00)	0.935
Platelet(K/uL)	Normal: 100-400 K/uL	226.50 (170.00, 308.28)	203.00 (160.00, 277.00)	0.302
MCV ^I (fl)	Normal: 80-100 fl	90.40 (87.35, 94.65)	90.70 (85.77, 95.30)	0.987
MPV ^{**} (fl)	Normal: 6,5-12 fl	9.30 (8.02, 10.05)	8.83 (7.38, 10.10)	0.150
LDH ^{††} (U/L)	Normal: 0-247U/L	299.50 (244.25, 354.25)	274.00 (230.00, 378.00)	0.678
Clinical Situation (%)				
Inotrope administered		12 (15.6)	12 (9.8)	0.225
Intubated		9 (11.7)	8 (6.6)	0.207
NIMV ^{**} Support Area		4 (5.2)	4 (3.3)	0.503
Arrest		4 (5.2)	4 (3.3)	0.503
Simple PESTI ^{§§} ≥ 1		49 (63.6)	81 (66.4)	0.691
Emergency Department Outcome (%)				
Outpatient Treatment		5 (6.5)	10 (8.2)	
Service Hospitalization		12 (15.6)	17 (13.9)	
In-hospital ICU ^{III} Admission		12 (15.6)	26 (21.3)	
Out-of-hospital ICU Referral		42 (54.5)	65 (53.3)	0.686
Exposure		4 (5.2)	3 (2.5)	
Treatment Rejection		2 (2.6)	1 (0.8)	
Mortality (%)				
30-day Mortality		30 (39.0)	31 (25.4)	0.037

Table 1. Basic characteristics of patients

TABLE 2

	Non-Diabetic (n=122)		Patients		Diabetic Patients (n=77)	
	High Group (n=63)	LGI Group (n=59)	Low LGI	High	Low LGI	
			p	Group (n=37)	LGI Group (n=40)	p
Demographic Data						
Women (%)	34 (54.0)	40 (67.8)	0.118	20 (54.1)	27 (67.5)	0.227
Age (year) mean ±SD	79 (68, 84)	78 (59, 86)	0.798	74 (68, 83)	74 (66, 81)	0.441
Medical CV (%)						
HT.	29 (54.0)	28 (47.5)	0.875	31 (83.8)	31 (77.5)	0.487
COPD*	8 (12.7)	10 (16.9)	0.508	7 (19.8)	2 (5.0)	0.058
CAD	15 (23.8)	6 (10.2)	0.046	10 (27.0)	16 (40.0)	0.229
CHF	10 (15.9)	11 (18.6)	0.685	9 (24.3)	11 (27.5)	0.751
Symptoms (%)						
Dyspnea	53 (84.1)	50 (84.7)	0.925	29 (78.4)	35 (87.5)	0.286
Hemoptysis	1 (1.6)	0 (0)	0.331	0 (0)	0 (0)	-
Palpitation	5 (7.9)	3 (5.1)	0.525	2 (5.4)	4 (10.0)	0.452
Chest Pain	9 (14.3)	9 (15.3)	0.880	6 (16.2)	8 (20.0)	0.667
Syncope	6 (9.5)	3 (5.1)	0.349	4 (10.8)	4 (10.0)	0.907
Cough	17 (27.0)	21 (35.6)	0.305	11 (29.7)	7 (17.5)	0.205
Pretibial Edema	13 (20.6)	14 (23.7)	0.681	7 (18.9)	6 (15.0)	0.646
Vital Signs median(IQRth)						
Systolic Blood Pressure (mmHg)	110 (100, 125)	120 (110, 130)	0.053	110 (100, 125)	120 (101, 120)	0.275
Diastolic Blood Pressure (mmHg)	75 (70.80)	70 (65, 80)	0.682	70 (60, 80)	75 (62, 81)	0.295

Pulse (beats/min)	84 (75, 97)	82 (75, 90)	0.495	82 (72, 90)	85 (76, 91)	0.236
SPO2 (%)	91 (89, 95)	92 (90, 95)	0.280	92 (86, 94)	90 (84, 96)	0.620

Laboratory Findings median (IQR)

Glucose (mg/dL)	Normal:70-100 mg/dL	149 (129, 165)	116 (100, 140)	<0.001	264 (179, 377)	126 (109, 160)	<0.001
	Normal:17-43 mg/dL	60 (36.75, 96.25)	52 (38.50, 93.50)		60 (46.50, 85.50)	73 (33.50, 92.25)	0.310
Urea (mg/dL)	43 mg/dL	96.25	(38.50, 93.50)	0.015	85.50)	(33.50, 92.25)	

Creatinine (mg/dL)	Normal:0,67- 1,17 mg/dL	0.99 (0.78, 1.47)	0.83 (0.66, 1.32)	<0.001	0.97 (0.81, 1.17)	1.04 (0.95, 0.850 1.36)
	Normal:70-	60.74 (43.67,	77.66		58.85	55.07
GFR [†] (ml/min)	145 ml/min	77.19)	(50.49, 85.52)	0.004	(48.71,81.35)	(42.52, 0.823 79.61)
	Normal: 136-	139 (137,	140		137 (133,	138
Sodium (mmol/L)	146 mmol/L	145)	(137, 139)	0.713	140)	(137, 0.144 140)
Potassium (mmol/L)	Normal:3,5- 5,1 mmol/L	4.35 (4.00, 4.70)	4.30 (3.85, 4.50)	0.075	4.13 (4.50,4.85)	4.45 (4.13, 0.324 4.80)
AST [‡] (U/L)	Normal: 0- 50 U/L	20 (11, 56)	19 (13, 40)	0.440	16 (12, 28)	18 (11, 29) 0.767
ALT [§] (U/L)	Normal: 0-50 U/L	26 (16.00, 70.00)	22 (17.00, 48.00)	0.418	23 (17.25, 41.00)	22 (16.00, 0.646 39.75)
CRP (mg/dL)	Normal: 0,00-5,00 mg/dL	77 (29.89, 153.23)	96 (13.95, 148.16)	0.114	101 (39.15, 214.57)	30 (11.07, 0.031 52.35)
D-Dimer	Normal: 0-	5235 (2780,	3800		6110 (2537,	3325
(ugFEU/L)	500 ugFEU/L	8935)	(3005, 8335)	0.083	16145)	(2075, 0.075 6622)
	Normal:	64 (36.15,	21(5.75,		147 (26.75,	29
Troponin (µg/L)	0,00-0,16 µg/L	255.43)	106.00)	<0.001	330.28)	(16.05, 0.119 104.51)
Ferritin (µg/L)	Normal:13- 150 µg/L	148 (51.78, 294.79)	162 (57.94, 601.76)	0.774	372 (120.62, 685.31)	161 (64.20, 0.044 238.88)
	Normal:	7.39 (7.32,	7.39		7.39 (7.32,	7.38
Blood pH	7,35-7,45	7.43)	(7.34, 7.44)	0.115	7.42)	(7.35, 0.058 7.43)
Lactate (mmol/L)	Normal: 0,5- 1,6 mmol/L	2.53 (1.98, 3.55)	1.90 (1.32, 2.72)	0.001	2.80 (2.10, 4.40)	1.90 (1.39, 0.027 2.48)
Hemoglobin	Normal: 11-	13.15	11.80		11.80 (11.02,	12.20
(g/dL)	16 g/dL	(11.59,14.00)	(11.00, 13.05)	0.001	13.89)	(10.88, 0.454 13.78)

Leukocyte (K/uL)	Normal: 0,8-4 K/uL	13.81 (11.35, 16.73)	8.63 (6.50, 10.35)	<0.001	14.18 (12.30, 17.04)	8.77 (7.52, 10.93)	<0.001
Neutrophil (K/uL)	Normal: 2,0-7,0 K/uL	11.02 (9.00, 14.29)	6.11 (4.54, 8.08)	<0.001	12.27 (8.44, 14.93)	6.31 (5.94, 7.75)	<0.001
Lymphocyte(K/uL)	Normal: 0,8-4 K/uL	1.52 (1.03, 1.99)	1.17 (0.69, 2.10)	0.806	1.21 (0.78, 2.95)	1.33 (0.97, 2.23)	0.907
Platelet (K/uL)	Normal: 100-400 K/uL	227.5 (179.7, 290.1)	180.0 (142.5, 224.0)	0.025	266.55 (164.0, 315.3)	212.5 (171.5, 243.0)	0.015

MCV [†] (K/uL)	Normal: 80-100 fl	89.65 (81.80, 95.15)	91.50 (88.99, 95.65)	0.667	89.45 (86.86, 93.53)	92.15 (87.60, 95.60)	0.495
MPV** (K/uL)	Normal: 6,5-12 fl	8.69 (7.42, 10.25)	8.83 (7.17, 9.75)	0.102	8.99 (7.50, 9.79)	9.15 (8.61, 10.80)	0.636
LDH ^{††} (U/L)	Normal: 0-247U/L	288.0 (246.7, 441.2)	262.0 (216.5, 335.5)	0.256	299.5 (230.0, 348.0)	302.5 (252.5, 384.5)	0.596
Clinical Status (%)							
Inotrope given		8 (12.7)	4 (6.8)	0.273	4 (10.0)	8 (21.6)	0.160
Intubated		5 (7.9)	3 (5.1)	0.525	3 (7.5)	6 (16.2)	0.234
NIMV ^{††} Support Recipient		2 (3.2)	2 (3.4)	0.947	1 (2.5)	3 (8.1)	0.268
Arrest		3 (4.8)	1 (1.7)	0.342	1 (2.5)	3 (8.1)	0.268
Simple PESTI ^{§§} ≥ 1		47 (74.6)	34 (57.6)	0.047	23 (57.5)	26 (70.3)	0.244
Emergency Department Outcome (%)							
Outpatient Treatment		5 (7.9)	5 (8.5)		5 (12.5)	0 (0)	
Service Hospitalization		7 (11.1)	10 (16.9)		6 (15.0)	6 (16.2)	
In-hospital ICU ^{‡‡} Admission		9 (14.3)	17 (28.8)	0.120	6 (15.0)	6 (16.2)	0.229
Out-of-hospital ICU Referral		38 (60.3)	27 (45.8)		21 (52.5)	21 (56.8)	
Exitus Treatment		3 (4.8)	0 (0)		2 (5.0)	2 (5.4)	
Refusal		1 (1.6)	0 (0)		0 (0)	2 (5.4)	
Mortality Status (%)							
Day 0 Mortality		4 (6.3)	2 (3.4)	0.450	4 (10.0)	4 (10.8)	0.907
0-7 days Mortality		4 (6.3)	6 (10.2)	0.442	3 (7.5)	6 (16.2)	0.234
7-30 days Mortalte		8 (12.7)	7 (11.9)	0.889	6 (15.0)	7 (18.9)	0.646
Total Mortality		16 (25.4)	15 (25.4)	0.997	23 (46.9)	7 (25.9)	0.073

Baseline characteristics of patients with different LGI levels

TABLE 3

	Non-Diabetic Patients OR* (95% CI*)	P	Diabetic Patients OR (95% CI)	P
Gender	1.167 (0.345, 3.947)	0.804	1.069 (0.204, 5.604)	0.937
Age	0.992 (0.931, 1.057)	0.802	1.044 (0.943, 1.156)	0.404
GFR [‡]	0.978 (0.954, 1.003)	0.088	1.003 (0.974, 1.034)	0.825
Troponin	1,000 (1,000, 1,000)	0.399	1,000 (0.999, 1.001)	1,000
Ferritin	1.002 (1.000, 1.004)	0.096	1.001 (0.999, 1.004)	0.251
Hemoglobin	0.806 (0.571, 1.137)	0.219	1.011 (0.674, 1.517)	0.956



Platelet	1.002 (0.995, 1.009)	0.542	0.995 (0.987, 1.003)	0.236
LGI[§]	1,000 (0.999, 1,000)	0.684	1,000 (1,000, 1,001)	0.124
Simple-PESI >1	0.111 (0.016, 0.749)	0.024	1.140 (0.227,1.001)	0.874

Logistic regression analysis results for patients who died within the first 30 days

Conclusions: Conclusion: Although LGI did not independently predict mortality in APE patients, it can complement prognostic tools like sPESI, particularly in non-diabetic individuals. Further studies are warranted to validate these findings on a larger scale and explore additional prognostic markers in APE.

Keywords: acute pulmonary embolism, emergency department, leukoglycemic index, prognosis



Ref No: 1420

Pub No: S-187

Experiences of the Black Sea coastal district hospital in the case of summer drowning

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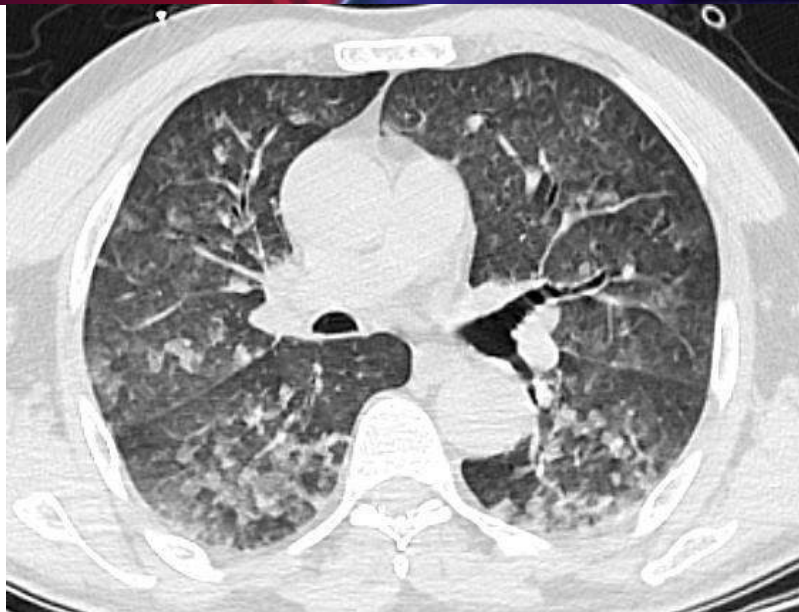
nazmiye özcan / S.B.Ü. Hamidiye Etfal Training and Research Hospital

Background and aim: Drowning remains an important public health problem worldwide and in our country. Emergency department (ED) admission rates for underwater drowning vary by region. The burden of drowning is disproportionately high among men, children and young people in low-income countries. (1) In our study, we examined drowning cases that occurred in June, July and August 2024 in Sarıyer district, which has a Black Sea coast in Istanbul. The aim of the study was to determine the profiles of drowning victims in this 3-month period, to draw conclusions about the factors that may affect them, and to obtain results for the prevention of drowning incidents.

Methods: In this epidemiological study, data on drowning cases in Sarıyer region were obtained by examining hospital records, forensic case reports, hospital forensic book, and hospital morgue records

Results: In June, July and August 2024, 15 cases of drowning were seen on the shores of Sarıyer, 3 of which were considered as exitus at the scene. All of the 12 cases that reached the hospital were brought by 112 teams. All of the 12 patients were male. Of the 12 patients admitted to the emergency department, 6 patients died in the emergency department and 2 patients died in the intensive care unit. Four patients hospitalized in the intensive care unit were discharged. All patients hospitalized in the intensive care unit had ground glass image on thorax tomography. (figure 1) The mean age of the patients was 35 (15-77). Three of the cases were filed between 08:00-10:00 in the morning, seven between 16:00-19:00, and two between 12:00-14:00.

figure 1



Conclusions: Drowning is a public health problem that should be addressed with the collaboration of many sectors. The reporting of such case series can contribute to the study and development of new strategies for the prevention of drowning in our country.

Keywords: drowning, sea, Blacksea



Ref No: 1423

Pub No: P-155

A Disparity in Representation: Scholarly Publications on the Palestine-Israel War (2015-2024)

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Background and aim: Since 1948, Israel has been in a state of war with the Palestinian state. Wars affect both states and, to a large extent, civilians. As a result of Israel's disproportionate attacks on civilians, 134,000 Palestinians have lost their lives, and on October 7, 2023, an additional 40,000 Palestinians were killed. During this period, the number of Israeli deaths was recorded at approximately 2,000.

Methods: Articles published between 2015 and 2024 containing the keywords "Palestine-Israel War" and "Israel-Palestine Conflict" were searched in the Scopus database. The search was completed on September 15, 2024. The articles were categorized by country based on the location of the clinics affiliated with the authors.

Results: A total of 799 articles were found. Of these, 285 originated from Israel and 138 from Palestine. After Israel, the most articles were published in the United States, followed by the United Kingdom, Italy, Canada, and other countries (Table 1). When examining the clinics where the publications originated, Israeli universities were predominant (Table 2).

Figure 1. Distribution of Articles on the Palestine-Israel War by Country

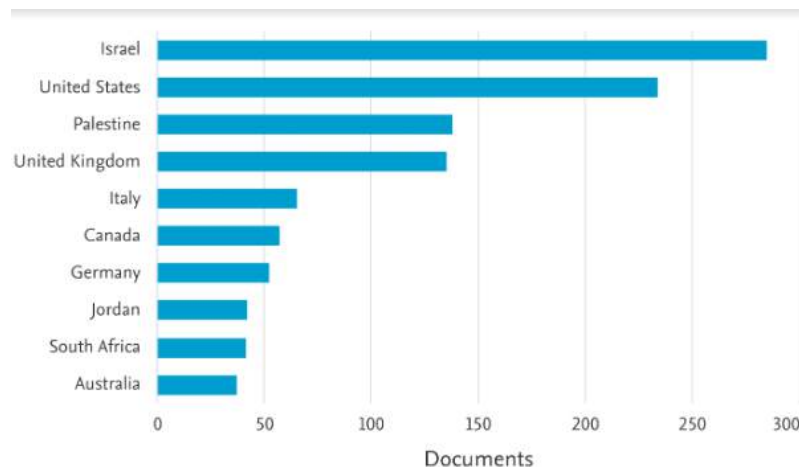
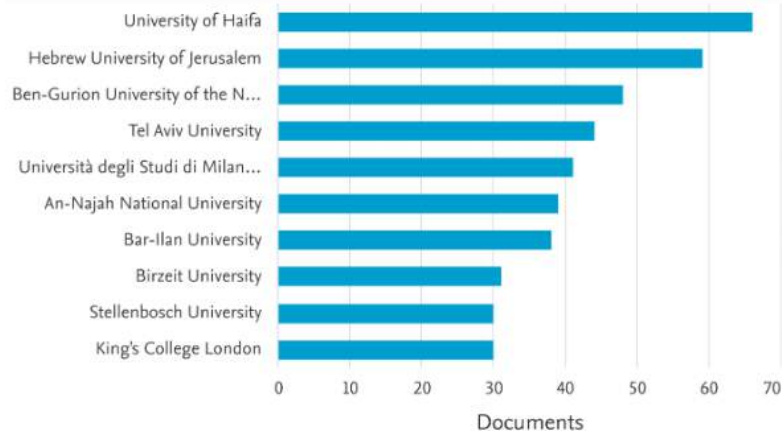


Figure 2. Distribution of Articles on the Palestine-Israel War by Institutions



Conclusions: When considering the mortality rates, Palestinian casualties are approximately 40 times higher than those of Israel. However, Israeli-affiliated studies were published about twice as often. This indicates a bias in favor of Israel within the scientific community.

Keywords: Palestine-Israel War, War Medicine, Scholarly Publications, Disparity in Representation, War Casualties and Bias



Ref No: 1524

Pub No: S-146

Evaluation of emergency department admission of patients with dental diseases: a retrospective analysis of data from a single hospital in the region

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Background and aim: Dental diseases can be excruciating and, if left untreated, can lead to further complications. Some patients prefer to seek treatment in emergency departments (EDs) since they are open 24/7 without the need for an appointment. However, some patients may rely solely on emergency treatment rather than seeking proper dental care, leading to recurring issues. This study aims to examine dental patients' use of EDs and dental hospitals. This study aims to evaluate the use of EDs and dental hospitals by dental patients by examining the data of the sole in the center and the largest hospital in the province.

Methods: In 2023, data on ED visits for dental issues included demographic details, admission times, treatment received, and subsequent visits to the dental hospital after the ED visit. Kırklareli University Faculty of Medicine Scientific Research Ethics Committee approved the study (P202300053-07/29.11.2023).

Results: Among 3179 patients with dental disease, 482 were re-admitted to the ED. The mean age was 31.5±13.4 years. 75.1% received analgesic injections, and 31.3% received prescriptions. The highest rate (49.2%) was observed between 16:00-24:00. 34.4% of the patients were re-admitted to the ED on the same day, and 22% were within 3 days. The mean number of recurrent visits of all patients was 3.3±2.4. The rate of admission to the dental hospital within 15 days was significantly lower for those who were prescribed in the ED ($p<0.005$). The rate of readmission to the ED on the same day and within 3 days was significant for those who were admitted to the dental hospital ($p<0.005$).

Characteristics of patients with re-admission to emergency department

	Min-Max	Median	Mean±SD n(%)
Age	4.0-79.0	29.0	31.5±13.4
Gender F			260(53.9)
M			222(46.1)
Admission time			



09:00-16:00			85(17.6)
16:01-24:00			237(49.2)
24:01-08:59			160(33.2)
*Treatment method			
IM			
IV			362(75.1)
Rp			31(6.4)
			151(31.3)
Re-admission			
Numbers of within 1 year	2.0-26.0	2.0	3.3±2.4
Within 3 days			106(22.0)
Within the same day			166(34.4)

SD: Standard deviation, IM: intramuscular, IV: intravenous, Rp: Recipe * The same patient has multiple results.

Admission status to the dental hospital

	Those who do not go to the dental hospital (n=228)	Those who go to the dental hospital (n=254)	p
	Mean±SD	Mean±SD	
	n(%)	n(%)	
Age	31.0±12.8	32.1±13.8	0.479 ^m
Gender			
F	121(53.1)	139(54.7)	0.716 ^{x2}
M	107(46.9)	115(45.3)	
Admission time to ED			0.932 ^{x2}



09:00-16:00			
16:01-24:00	39(17.1)	46(18.1)	
24:01-08:59	114(50.0)	123(48.4)	
	75(32.9)	85(33.5)	
*Treatment method in ED			
IM	163(71.5)	199(78.3)	0.082 ^{x2}
IV	16(7.0)	15(5.9)	0.619 ^{x2}
Rp	94(41.2)	57(22.4)	0.000 ^{x2}
Re-admission to ED			
Numbers of within 1 year	3.5±2.9	3.1±1.9	0.172 ^m
Within 3 days	40(17.5)	66(26.0)	0.26 ^{x2}
Within the same day	67(29.4)	99(39.0)	0.27 ^{x2}

mMann-Whitney U test / X² Chi-square test, SD: Standard deviation ED: Emergency department, IM: intramuscular, IV: intravenous, Rp: Recipe * The same patient has multiple results.

Conclusions: The study found that dental patients are making repeated visits to the ED for prescriptions and analgesic injections. To address this issue, implementing 24-hour service in dental hospitals, establishing dental emergency outpatient clinics in EDs, or offering symptomatic treatment in dental hospitals could be potential solutions.

Keywords: emergency service, re-admission, Dental disease



Ref No: 1597
Pub No: P-151

Presentation of our cases diagnosed with Thrombosis based on sudden pain, movement limitation and skin symptoms in the upper and lower extremities in our emergency orthopedics and traumatology cases:

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Background and aim: It is emphasized that deep vein thrombosis should be investigated in the etiologies of patients presenting to the emergency department based on pain in the lower and upper extremities, movement limitations and skin symptoms.

Methods: The files of 9 patients who applied to the emergency department of Kafkas University Faculty of Medicine were retrospectively reviewed. Demographic findings, etiological causes, radiological imaging results, surgical treatment and results, and postoperative complications of the patients were recorded.

Results: Of our 9 patients who applied to the Emergency Orthopedics and Traumatology clinic with pain, swelling and limited movement between 1/1/2022-1/8/2024, 3 were female and 6 were male. 2 of the patients presented with symptoms of thrombosis within the first 4 months after orthopedic surgical intervention. Among our other patients, 3 patients presented with supra patellar bursitis and calf pain, 1 patient presented with supra patellar bursitis, calf pain and acute psoriatic symptoms, 2 patients presented with calf swelling and pain, and 1 patient presented with pain, swelling, bruising, limited movement in the right hand and arm in general surgery. The average age of our patients was 55.8. 4 of our patients had significant varicose veins. 8 of our patients had a positive Claudication sign and Homans test. Thrombosis symptoms started to become apparent 3 weeks after bursitis symptoms. When our patients applied to the emergency clinic, they were initially diagnosed as infected cases due to increases in their blood tests and antibiotic treatments were started, but due to the rapid progression of symptoms, Deep vein thrombosis was diagnosed in Doppler ultrasonography performed in our orthopedic clinic and antithrombotic treatments were started.

Conclusions: Pre- and post-operative clinical follow-ups of our orthopedic and surgical patients, controls for metabolic diseases, use of antithrombotic over-the-knee socks, and anticoagulant treatments should be applied until full mobilization.

Keywords: Trombosis, vein, anticoagulant, Doppler Ultrasonography, Homans test



Ref No: 1740
Pub No: P-152

Our Acute Gangrene Cases in Our Emergency Departments After Diabetic Arthropathy and Neurovascular Pathologies.

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Ertuğrul Allahverdi / Kafkas University Ortopedic and Travmatology

Background and aim: Psychosocial and physical evaluation of the effects of early diagnosis and treatment of neurovascular pathologies in the lower extremities on mortality and morbidity in our diabetic patients while receiving treatment with comorbidity diagnoses in Orthopedics and General Surgery clinics during follow-ups.

Methods: The files of 14 patients who applied to the emergency department of Kafkas University Faculty of Medicine were retrospectively reviewed. Demographic findings, etiological causes, radiological imaging results, surgical treatment and results, and postoperative complications of the patients were recorded.

Results: The average age of our patients who have been receiving diabetes treatment for an average of 13 years is 59, 3.9 female, 5 male, 6 patients had Charcot arthropathy, all patients had lower extremity vasculopathy and neuropathy, 10 patients had Tinea pedis, onychomycosis, 6 patients had irregular diabetes. The patients had hypertension, obstructive pulmonary disease, and Alzheimer's disease. Peripheral vascular stent application was performed in 4 patients, but no results were obtained. After gangrene due to fully established vascular damage, 4 patients underwent finger amputations, 5 patients underwent below-knee amputations, and 2 patients underwent above-knee amputations. Hyperbaric oxygen therapy was recommended for 3 patients.

Conclusions: Pre- and post-operative clinical follow-ups of our orthopedic and surgical patients, controls for metabolic diseases, Post-operative prosthesis applications were started after 3 months. However, since psychosocial trauma was evident in all our patients, before applying for amputation surgery, patients should be made obliged to be followed up by family physicians, orthopedists, general surgeon, endocrinology clinics by giving the necessary training frequently and regularly. Socioeconomic losses and psychological trauma after amputation are much more severe in patients.

Keywords: Lower Extremity, Diabetes Mellitus, metabolic diases, orthopedist, gangren

Ref No: 1788
Pub No: S-204

Fasudil Shields Against Sepsis-Induced Kidney Injury by Targeting STAT-3 and NLRP-3 in Rats

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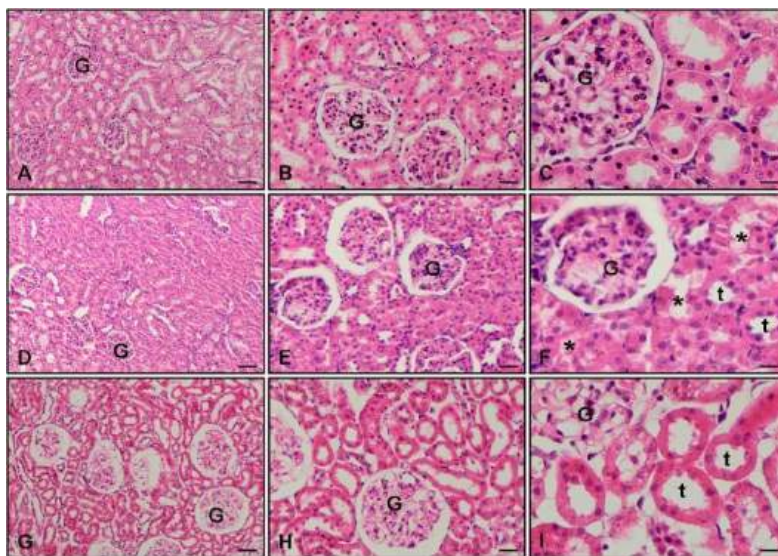
Osman Sezer Çınaroğlu / İzmir Katip Çelebi University Faculty of Medicine Department of Emergency Medicine

Background and aim: The aim of this study was to investigate the protective effects of Fasudil, a Rho-associated kinase inhibitor, on sepsis-induced acute kidney injury (S-AKI) in a rat model. The study specifically focused on the mechanisms by which Fasudil suppresses the STAT-3 and NLRP-3 pathways, which are central to inflammation and immune responses in S-AKI.

Methods: Thirty-six female Wistar albino rats were divided into three groups: a control group, a group subjected to a cecal ligation and puncture (CLP) procedure to induce sepsis and treated with saline, and a CLP group treated with Fasudil (100 mg/kg/day). The study measured kidney function biomarkers (BUN, creatinine), inflammatory markers (TNF- α), oxidative stress (MDA), and the expression of STAT-3 and NLRP-3 in kidney tissues. Renal tissue was examined histopathologically for necrosis, inflammation, and tubular damage.

Results: The results showed that Fasudil significantly reduced inflammatory markers and oxidative stress levels compared to the untreated sepsis group. Fasudil administration also improved kidney function, reflected by lower BUN and creatinine levels. Histopathological analysis demonstrated reduced tubular injury and necrosis in the Fasudil-treated group.

Kidney histopathology





Kidney histopathology x10, x 20, and x 40 magnification, hematoxylin, and eosin (H&E) stain. A-B-C: Normal group kidney, renal tubules ; Glomerulus (G); D-E-F: CLP and saline groups showed severe histopathologic alteration related to tubular injury (t) and necrosis (*); H-H-I: CLP and 100 mg/kg Fasudil groups was showed decreased injury

Conclusions: In conclusion, Fasudil demonstrated significant protective effects in a rat model of S-AKI by reducing inflammation, oxidative stress, and renal tissue damage. These findings suggest that Fasudil could be a potential therapeutic strategy for managing acute kidney injury in sepsis patients, with a focus on targeting the STAT-3 and NLRP-3 pathways.

Keywords: Sepsis, Acute Kidney Injury, Fasudil, Reperative effect



Ref No: 1852

Pub No: S-155

Benzodiazepine poisoning: diverse treatment approaches and clinical protocols worldwide

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Merve Demireller / Kırklareli University, Faculty of Medicine, Department of Emergency Medicine, Kırklareli

Background and aim: Benzodiazepines are commonly prescribed for anxiety disorders, sleep disturbances, and epilepsy. The widespread use of over 50 distinct benzodiazepine agents worldwide contributes to a high incidence of overdoses, making benzodiazepine toxicity a frequent issue in emergency departments. This study aims to compare global treatment approaches and clinical protocols for managing benzodiazepine poisoning, with a particular focus on the efficacy of these interventions.

Methods: A systematic review of literature published between 2000 and 2024 was conducted to compare global clinical practices in treating benzodiazepine poisoning. The review analyzed studies, treatment protocols, and antidote use, particularly Flumazenil, from international databases such as PubMed, Scopus, and Cochrane. Data from regions including the United States, Europe, and Turkey were compared.

Results: The use of benzodiazepines for both therapeutic and recreational purposes varies globally, resulting in differences in laws, prescribing practices, and treatment protocols. Flumazenil, the specific antidote for benzodiazepine toxicity, exhibits significant variations in usage depending on the patient's clinical condition and local guidelines. In the United States, Flumazenil is available but used cautiously due to the risk of seizures in chronic benzodiazepine users. European practices are similar, although some countries enforce stricter usage criteria. In Turkey, while Flumazenil is accessible, its use is limited due to contraindications, with supportive care often taking precedence.

Conclusions: The United States generally favors pharmacological interventions, with a particular emphasis on antidotes, while Europe and Turkey tend toward more conservative strategies, prioritizing supportive care. The administration of Flumazenil requires careful consideration in all regions due to the risk of seizures and is typically combined with supportive measures.

Keywords: Benzodiazepine, toxication, flumazenil, global treatment



Ref No: 1903
Pub No: S-162

Choose your side: SII or CURB65 in geriatrics patients with pneumonia

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Background and aim: We aimed to compare the Systemic Immune-Inflammatory Index and CURB65 scoring system in determining the prognosis of patients over 65 years of age diagnosed with pneumonia in the emergency department.

Methods: Patients over 65 years of age who were diagnosed with pneumonia in the emergency department between 1 January 2023 and 1 January 2024 were retrospectively included in the study. Demographic characteristics, vital signs, consciousness status, neutrophil (n), lymphocyte (l), platelet (l), thrombocyte (t), urea values and discharge/admission status of the patients were recorded. SII and CURB65 scores of the patients were calculated. Data were analysed statistically.

Results: 342 patients were included in the study. 64 (18,7%) patients were hospitalised in intensive care unit (ICU), 234 (68,4%) patients were hospitalised and 44 (12,9%) patients were discharged from the emergency department. According to ROC analysis, CURB65 and SII score were statistically significant for the distinction between hospitalization/discharge and hospitalization /ICU ($P < 0.001$, both of them) When the data were categorized according to the cut off values determined in the ROC analysis; CURB65 over 2.52 and SII over 1573 were found to be significant for hospitalization and CURB65 over 4,12 and SII over 4865 were found to be significant for ICU to the Chi-square analysis, ($P < 0.001$, both of them)

Demographic and blood parameters of patients

	n	%		
<u>Sex</u>				
Female	147	42,98		
Male	195	57,02		
<u>Vital</u>				
Systol BP <90 mmHg	81	23,7		
Systol BP <90-120 mmHg	26	7,6		
Systol BP >120 mmHg	235	68,7		
Diastolic BP< 60 mmHg	47	13,7		
Diastolic BP< 60-90mmHg	122	35,7		
Diastolic BP> 90 mmHg	173	50,6		
<u>Respiratory Rate</u>				
<30	316	92,4		
>30	26	7,6		
<u>Mental Status</u>				
Non-confusion	333	97,3		
Confusion	9	2,7		
<u>Blood Parameters</u>				
BUN> 20mg/dl	93	27,2		
BUN< 20mg/dl	249	72,8		
	Min	Max	Mean	Std. Deviation
Neutrophil	2,29	31,68	10,72	3,2
Lymphocyte	0,31	5,7	2,15	1,3
Platelet	76	527	245	63
<u>SII Score</u>	98,3	6827	1327	986
CURB65	1	5	2,8	0,4

Conclusions: High SII values indicate increased systemic inflammation and are associated with poor prognosis in various conditions, including pneumonia. CURB65 is one of the most frequently used scores in the management of patients with pneumonia in the emergency department. In cases where CURB65 is not consistent with clinical prediction, alternatives such as the SII score can be used safely in the management of patients.

Keywords: Systemic Immune Inflammatory Index, CURB65, Pneumonia



Ref No: 1913
Pub No: S-206

The Role of the HALP Score in Indicating the Severity of Acute Appendicitis and Predicting Clinical Prognosis

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Background and aim: It is important to make this distinction with biomarkers when discussing conservative treatment in uncomplicated Acute Appendicitis (AA) cases. The aim of this study is to examine the potential of the HALP score to determine AA severity and predict clinical prognosis.

Methods: In this retrospective study, 94 patients whose HALP score could be calculated at the time of admission, among patients who were hospitalized and operated on due to AA in the 3rd level hospital emergency department between 2015 and 2024, were included in the study. According to the pathology reports, the patients were divided into two groups: complicated and uncomplicated.

Results: Of the 94 patients included in our study, 43 were female and 51 were male, and their average age was determined as 33.45 ± 13.24 . 60 (63.8%) of the patients are in the uncomplicated appendicitis group, and 34 (36.2%) are in the complicated appendicitis group. In our study, no significant statistical difference was found between the complicated and uncomplicated AA groups in terms of complete blood count and biochemistry tests ($p > 0.05$). No significant difference was observed between the complicated and uncomplicated groups in terms of HALP score ($p = 0.200$).

Comparison of Complete Blood Count and Statistical Data by Groups

Variables	Uncomplicated App		Complicated App		P value
	Mean±SD	Median (IQR)	Mean±SD	Median (IQR)	
WBC	14.0±4.15	13.87 (6.29)	14.81±5.58	14.37 (5.36)	0.469
Hemoglobin	13.83±2.12	14.35 (3.35)	13.29±1.99	13.6 (3.03)	0.230
Neutrophile	11.38±4.22	11.42 (6.7)	12.22±5.5	11.67 (5.82)	0.436
Lymphocyte	1.78±0.78	1.7 (0.9)	1.71±0.73	1.55 (1.35)	0.777
Hematocrit	41.24±5.48	42.65 (8.53)	39.84±5.09	39.3 (7.45)	0.303
Platelet	238.58±55.79	236.5 (68.25)	260.71±66.17	256.5 (60.75)	0.096

Comparison of Biochemistry Examination and Statistical Data by Groups

Variables	Uncomplicated App	Complicated App	P value



	Mean±SD	Median (IQR)	Mean±SD	Median (IQR)	
ALT	19.42±12.65	15.5 (11)	17.06±13.61	12 (9.75)	0.065
AST	21.17±11.84	17.5 (8)	17.41±6.6	15 (7.5)	0.107
Albumin	37.24±3.92	37.55 (4.28)	37±3.94	37.65 (3.98)	1.000
CRP	52.53±65.68	31.11 (51.53)	81.58±124.42	29.37 (96.69)	0.944
Glucose	116.57±44.2	105 (27.5)	117.81±29.23	110.5 (29.5)	0.363
Creatinine	0.88±0.2	0.88 (0.29)	0.92±0.39	0.82 (0.33)	0.422
Urea	28.62±9.58	26.85 (10.98)	33.39±26.78	26.5 (15.68)	0.753
BUN	13.54±4.63	12.55 (5.21)	15.83±12.28	12.38 (6.98)	0.819
Sodium	135.7±2.43	136 (3)	136±2.36	136 (4)	0.490
Potassium	4.17±0.34	4.16 (0.41)	4.11±0.35	4.17 (0.51)	0.593

Comparison of HALP Score, Clinical Features and Statistical Data by Groups

Variables	Uncomplicated App		Complicated App		P value
	Mean±SD	Median (IQR)	Mean±SD	Median (IQR)	
Hospitalization Duration, days	2.82±4.0	2 (1.75)	2.71±2.36	2 (2.25)	0.484
Appendix Diameter, mm	10.03±3.07	9.5 (3)	10.22±2.57	10 (4)	0.526
Symptom Duration, days	1.95±1.42	1 (1)	2.63±2.9	1.5 (2)	0.533
HALP Score	4.07±2.42	3.62 (2.51)	3.41±1.73	2.83 (2.08)	0.200

Conclusions: The findings of our study suggest that the use of the HALP score as a routine prognostic tool in the management of AA is limited. Future studies should comprehensively evaluate not only the HALP score but also the prognostic value of other laboratory and clinical parameters.

Keywords: Appendicitis, Complication, HALP Score, prognosis, Emergency



Ref No: 2048

Pub No: S-188

Comparison of Vibrating MESH nebulizer versus Jet nebulizers in COPD Exacerbation patients, Randomized, single-blind Clinical Trial

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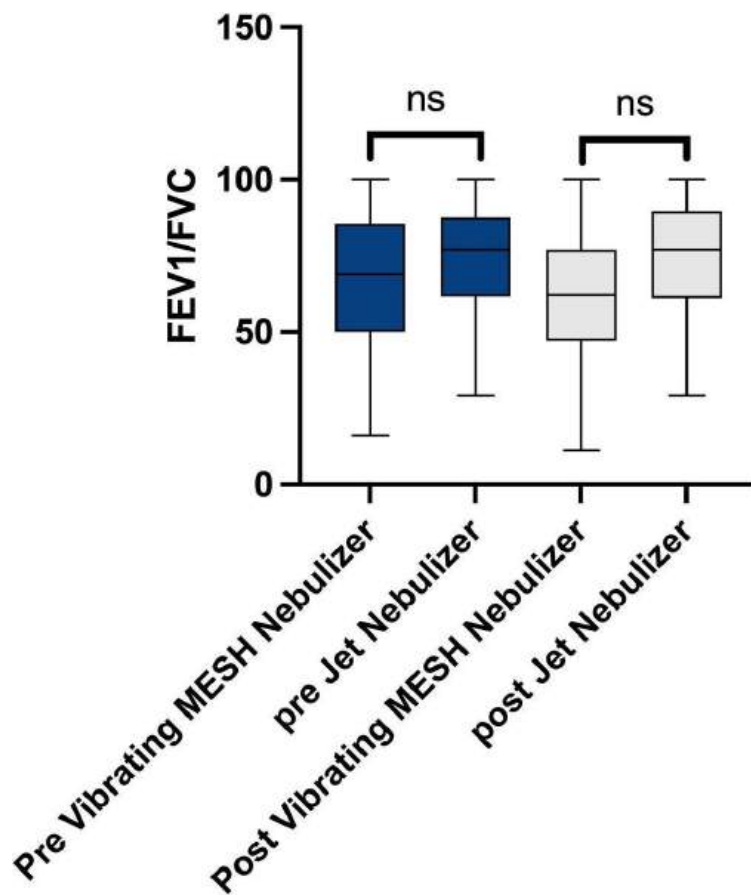
Erdem Cevik / Sultan 2. Abdulhamid Han Research and Training Hospital, Department of Emergency Medicine

Background and aim: β -2 agonists and/or short-acting anticholinergic drugs use is recommended in patients with COPD. Salbutamol is known to cause significant improvement in dyspnea, quality of life and FEV1 in patients with COPD. Various techniques are used to administer drugs, one of which is the nebulization technique and is frequently used in emergency departments(ED). The aim of this study is to compare the efficacy of Vibrating MESH nebulizer versus Jet nebulizers in a COPD exacerbation patient.

Methods: Adult patients who applied to the ED with the complaint of shortness of breath and were diagnosed with COPD exacerbation according to the Gold Guidelines and to be treated with nebulization included in the study. Patients were randomized. Medication was applied to one group with Jet nebulizers and to the other group with Vibrating MESH nebulizer. IPI, spirometric measurements and dyspnea VAS score was recorded at admission and reassessed after 1hour of treatment. All data were documented in patient files, and group codes were used to ensure the researcher evaluating the data was blinded to group assignments.

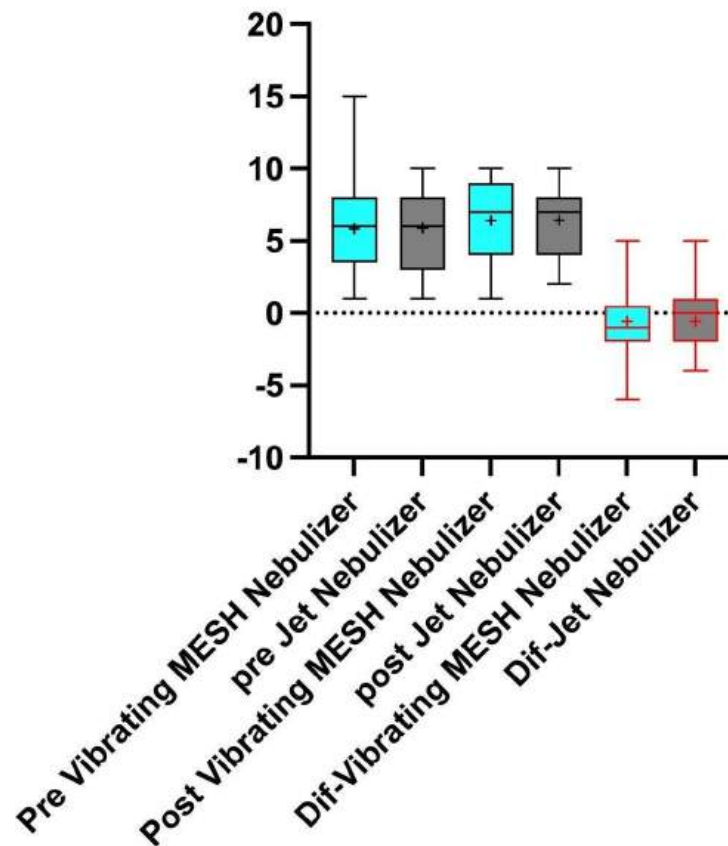
Results: A total of 98 patients were included in the study, with 49 patients in each group. The mean age of the patients was 70 ± 14.9 (95%CI:67-73) and 42 (42.9%) were female. No significant difference in spirometric measurements was observed between the two groups. When comparing pre- and post-treatment IPI values, they increased from 5.88 to 6.45 in the JN group and from 5.84 to 6.41 in the vibrating mesh nebulizer group. For the VAS score, it decreased from 6.73 to 3.96 in the JN group and from 6.08 to 3.33 in the vibrating mesh nebulizer group. The differences in IPI and VAS scores were similar between two groups

Spirometric measurements of groups



Comparing of IPI values of groups

Pre/Post IPI



Conclusions: It was concluded that both techniques can be used in the emergency department for nebulization therapy.

Keywords: COPD, Jet Nebulizer, Vibrating MESH nebulizer

Ref No: 2183

Pub No: S-205

Ultrasonographic Evaluation of Optic Nerve Sheath Diameter Change Before and After Thrombolytic Treatment in Acute Ischemic Stroke

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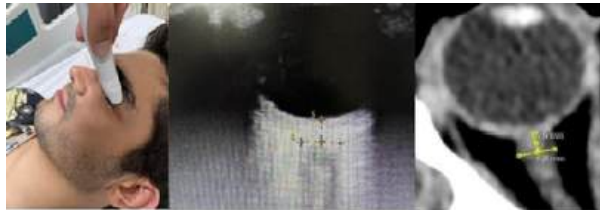
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Background and aim: Acute Ischemic Stroke is a significant cause for morbidity and mortality worldwide. Thrombolytic therapy is the mainstay therapy for AIS in the modern era. Intracranial hemorrhage is one of the most common of thrombolytic therapy complications and can cause significant problems. Non-invasive methods such as ultrasonography are becoming prominent to detect ICH early. We aimed to measure the ultrasonography Optic Nerve Sheath Diameter in patients with AIS before and after thrombolytic therapy and to find out if there is any correlation with the complications at 24 hours.

Methods: Patients aged 18 years and over who were considered suitable for thrombolytic therapy in a AIS patients who applied to Istanbul Kanuni Sultan Süleyman Training and Research Hospital and Istanbul Başakşehir Çam and Sakura City Hospital Emergency Departments were included in the study, which was planned as a two-center, prospective observational and cross-sectional study between 25.03.2022 and 25.10.2022. Before and after the thrombolytic treatment (0. hour, 1. hour and 4. hour), ONSD was measured by an emergency physician at the bedside with an USG device. Patients with and without complications after thrombolytic therapy were grouped and the ONSD measurements were compared.

Optical ultrasonography application technique, B: USG measurement of ONSD, C: ONSD measurement with CT



ONSD with CT scan after thrombolytic in a complication group patient. B: ONSD with USG scan after thrombolytic in a complication group patient.



Results: A total of 116 patients were included in the study between 25.03.2022 and 25.10.2022. The most common complications in patients were 10.3% (n=12) ICH, 8.6% (n=10) brain edema and 0.9% (n=1) shift. We found statistically significant high values in the 4th hour ONSD measurements in the group with complications (right, $p=0.004$, left, $p=0.053$). We found statistically significantly higher ONSD values in the group with complications in the 24th hour measurements with computed tomography (CT) compared to the group without complications ($p<0.001$).

Distribution of complications

	ICH	Brain Edema	Shift
Absent	104 (89.7)	106 (91.4)	115 (99.1)
Present	12 (10.3)	10 (8.6)	1 (0.9)

Analysis of baseline vital parameters, laboratory findings and scoring systems

	Complication (n=100/16)		p value
	Absent	Present	
Systolic Pressure, mmHg	160 [31.75]	165 [20]	0.560
Diastolic Pressure, mmHg	85 [15]	90 [18.75]	0.171
Pulse, beats per minute	70 [10]	75.5 [19.5]	0.094
Respiration Rate, breaths per minute	18.5 [2]	19 [4]	0.476
Saturation, %	95 [3]	94 [3.75]	0.031
Fever, °C	36.5 [0.60]	36.75 [0.78]	0.056
GCS, 3-15	15 [0]	14 [2]	<0.001
Hgb, gr/dl	13.25 [3.38]	12.25 [3.63]	0.387
Hct, %	40.75 [7.9]	36.9 [8.98]	0.323
Plt, $10^3/\mu\text{L}$	224 [79.25]	205 [112.75]	0.335
Glucose, mg/dL	119 [56.5]	132 [51.25]	0.454



Creatinine, mg/dL	0.86 [0.29]	0.92 [0.34]	0.171
PT	12.6 [5.79]	13.55 [5.6]	0.222
INR, second(s)	1.01 [0.18]	1.05 [0.12]	0.216
ASPECT Score	9 [1]	9 [0.75]	0.096
ICH Score	0	1 [1]	<0.001

Relationship between complication groups and ONSD measurements and NIHSS

		Complication (n=100/16)		p value
		Absent	Present	
USG 0 th Hour	RONSD	4.9 [0.60]	5.1 [0.68]	0.136
	LONSD	4.8 [0.88]	4.95 [0.50]	0.594
USG 1 st Hour	RONSD	4.9 [0.60]	4.95 [0.38]	0.203
	LONSD	4.7 [0.80]	4.9 [0.78]	0.279
USG 4 th Hour	RONSD	4.7 [0.60]	4.95 [0.45]	0.004
	LONSD	4.6 [0.70]	4.8 [1.23]	0.053
CT 0 th Hour	RONSD	4.9 [0.50]	5.1 [0.55]	0.275
	LONSD	4.9 [0.70]	5.05 [0.75]	0.159
CT 24 th Hour	RONSD	4.7 [0.40]	5.2 [0.63]	<0.001
	LONSD	4.6 [0.60]	5.2 [0.85]	<0.001
NIHSS 0 th Hour		9 [6]	9 [9]	0.590
NIHSS 1 st Hour		9 [6]	9 [8.25]	0.426
NIHSS 4 th Hour		9 [6]	9 [9.5]	0.502

Conclusions: We think that the follow-up of ONSD values with USG is a useful parameter in predicting the complications that may develop after thrombolytic therapy and in monitoring intracranial pressure.

Keywords: Acute ischemic stroke, Increased intracranial pressure, Optic nerve sheath diameter, Thrombolytic, Ultrasonography



Ref No: 2525
Pub No: S-209

Inflammatory Indexes in Emergency Patients with Hypertensive Pulmonary Edema: A Critical Insight

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Background and aim: Heart failure (HF) is a prevalent and severe condition with high hospitalization and mortality rates, especially in developing countries. Inflammation plays a crucial role in its etiology. Hypertensive pulmonary edema, a severe form of acute decompensated heart failure (ADHF), lacks a definitive scoring system for predicting hospital admission outcomes. This study aims to evaluate the prognostic value of systemic inflammatory indexes (SII), systemic inflammation response index (SIRI), neutrophil/lymphocyte ratio (NLR), platelet/lymphocyte ratio (PLR), and multi-inflammatory indexes (MII-1, MII-2, MII-3) in patients with hypertensive pulmonary edema.

Methods: We conducted a retrospective observational study at Izmir Atatürk Training and Research Hospital from March 1, 2023, to March 1, 2024. We included 150 patients aged ≥ 18 with hypertensive pulmonary edema, excluding those with incomplete data or conditions affecting inflammation. Various inflammatory indices were calculated from blood parameters. We used ROC curve analysis to analyze their correlation with hospital outcomes, including discharge and mortality.

Results: Among the 150 patients (mean age 70.14 ± 11.47 years), 25 (16.7%) experienced in-hospital mortality. Significant differences between discharged and deceased patients were found in systolic blood pressure, neutrophil count, and inflammatory indices. ROC curve analysis showed NLR, SIRI, MII-1, MII-2, and MII-3 as significant predictors of in-hospital mortality, with MII-1 having the highest AUC (0.697) and sensitivity (60.00%).

Conclusions: SIRI, NLR, MII-1, MII-2, and MII-3 may help predict in-hospital mortality in hypertensive pulmonary edema. Further research is needed to validate these markers and explore their utility in clinical practice.

Keywords: Heart failure, Hypertensive pulmonary edema, Systemic inflammatory index, Prognosis



Ref No: 2647
Pub No: S-250

RELATIONSHIP BETWEEN NIHSS SCORE, AF AND OXIDIZED LIPOPROTEIN IN ISCHEMIC STROKE CASES

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ŞİŞLİ HAMİDİYE ETFAL TRAINING AND RESEARCH HOSPITAL

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Background and aim: Background: The pathophysiology of stroke, also known as cerebrovascular accident (CVA), is still being widely investigated to develop new diagnostic and therapeutic strategies based on atherosclerosis, atrial fibrillation and oxidized LDL (OxLDL). Aim: This study investigated whether there was a relationship between AF prevalence, serum OxLDL level and National Institutes of Health Stroke Scale (NIHSS) score in cases of acute CVA (A-CVA).

Methods: Materials and Methods: The study, conducted as a single-center analytical cross-sectional study, included 25 (male/female: 12/13) patients diagnosed with A-CVA in the Emergency Medicine Clinic between June 2024 and JULY 2024. Demographic characteristics, atrial fibrillation (AF) status and comorbidities (such as hypertension, diabetes mellitus, ischemic heart disease, hyperlipidemia, malignancy and hypothyroidism) of all participants were recorded. The NIHSS score was calculated for all patients on admission and before discharge, and serum OxLDL levels were measured using the ELISA method.

Results: Results: The mean age of the patients was 64 ± 11 years and their BMI was 26.6 ± 5.0 kg/m². 9 (36%) of the patients declared smoking and 4 (16%) declared alcohol consumption. The mean systolic and diastolic blood pressure of all patients was found to be 140 ± 22 / 88 ± 20 mmHg, respectively. 22 of the patients had HT, 9 had DM and 11 had AF. According to the radiological imaging results, mid cerebral artery occlusion was detected in 80% of the patients. OxLDL levels were found to be much higher in A-CVA patients with AF compared to A-CVA patients without AF ($845(479-2153)$ vs. $454(359-2285)$ ng/mL, respectively, $p=0.0179$). There was a moderate positive correlation between NIHSS score and OxLDL levels ($r=0.563$, $p<0.0034$).

Conclusions: Conclusions: In conclusion, OxLDL is associated with the formation of ischemic A-CVA by causing atrial fibrillation through various mechanisms. This relationship may be used to develop a potential treatment strategy.

Keywords: Acute Cerebrovascular Accident, Oxidized LDL, NIHSS score, Atrial fibrilasyon



Ref No: 2731
Pub No: S-200

Analysis of emergency bleeding parameters, clinical follow-up, and treatment processes of patients hospitalized with suspected upper gastrointestinal bleeding

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Background and aim: Upper gastrointestinal (GI) bleeding is a significant cause of emergency admissions, requiring prompt diagnosis and management. This study analyzes the bleeding parameters, clinical follow-up, and treatment outcomes of patients hospitalized from the emergency department with suspected upper GI bleeding.

Methods: This retrospective study included patients admitted to Nigde Omer Halisdemir University Training and Research Hospital between January 1 and July 1, 2024, diagnosed with upper GI bleeding based on specific ICD codes. Patients under 18 years old, discharged directly from the emergency room, or with immune suppression or oncological conditions were excluded. Data collected included demographic information, use of anticoagulants, liver cirrhosis history, rectal examination findings, laboratory parameters (hemoglobin, platelet count, urea, INR), endoscopic results, duration of hospitalization, and mortality rates. Statistical analyses were performed to identify significant correlations.

Results: A total of 99 patients were included, with a median age of 70 years. Of these, 58 were male, and 53.5% had melena on rectal examination. Key laboratory findings revealed a median hemoglobin level of 9.3 g/dL, urea of 60 mg/dL, and INR of 1.15. Endoscopy was performed in 59 patients, with esophageal variceal bleeding detected in 7 patients and active gastric bleeding in 11. Red blood cell transfusions were administered to 44 patients. The median hospital stay was 4 days, and the overall mortality rate was 5.1%. Significant differences were noted in INR and urea levels in patients with positive melena, anticoagulant use, and endoscopy findings.

Conclusions: This study highlights the importance of early identification and aggressive management of upper GI bleeding in the emergency setting. Timely endoscopic evaluation and appropriate transfusion strategies play a key role in management, particularly in patients with anticoagulant use and cirrhosis, who tend to have longer hospital stays and more severe bleeding outcomes.

Keywords: Upper Gastrointestinal, Bleeding, Emergency, Follow-Up, Treatment



Ref No: 2769
Pub No: P-154

ACUTE CORONARY SYNDROME IN PATIENTS PRESENTING WITH CHEST PAIN IN EMERGENCY DEPARTMENT

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¹NECMETTİN ERBAKAN ÜNİVERSİTİ

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Background and aim: Chest Pain is described as a feeling of pain, pressure or tightness between the xiphoid, suprasternal notch and both midaxillary lines. Acute Coronary Syndrome (ACS) refers to a group of clinical disorders that occur as a result of acute myocardial ischemia. ACS encompasses a range of clinical presentations from stable angina to acute myocardial infarction, including the subtypes of non-ST segment elevation myocardial infarction and ST segment elevation myocardial infarction

Methods: We retrospectively analyzed the information of the patients with sufficient file information within a 6-month period at the Department of Emergency Medicine, NEU Faculty of Medicine. Among 1468 admissions, 1428 cases had no acute coronary symptoms and 40 cases had acute coronary symptoms.

Results: The study included 1468 patients. 646 of the patients were female and 822 were male. Acute coronary symptoms were detected in 40 of all cases. Of the patients with acute coronary symptoms, 7 had USAP and 33 had MI.

Conclusions: Chest pain can be a symptom of both serious life-threatening and non-life-threatening diseases and the differential diagnosis is very broad. Pulmonary embolism, spontaneous pneumothorax, aortic dissection, pericarditis, decompensated heart failure are among the common differential diagnoses. Although ACS is one of the first pathologies that come to mind in patients presenting with chest pain, other pathologies should also be considered in the differential diagnosis as a result of the data we have obtained above. We found an axis rate of 2.7% in patients with chest pain. The rate is mentioned as 10% in reference books. This is not consistent with the literature. This situation is thought to make it difficult to reach cardiac diagnoses due to insufficient anamnesis information for other diagnoses that play a major role in differential diagnosis in patients presenting with chest pain.

Keywords: CHEST PAIN, ACUTE CORONARY SYNDROME



Ref No: 2808
Pub No: S-165

Investigation of Dynamic ETCO₂ Values with Side Stream in the Treatment of Pneumothorax: A Prospective Study

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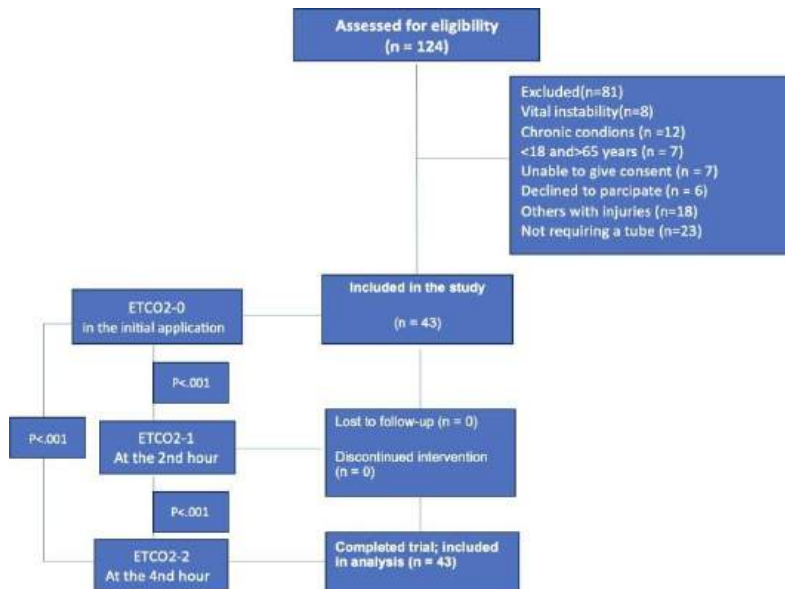
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Background and aim: This study aimed to elucidate the role of ETCO₂ monitoring in PTX cases, particularly in assessing treatment response following tube thoracostomy.

Methods: Conducted at Ankara Bilkent City Hospital's emergency department, this prospective cross-sectional study included 43 patients diagnosed with spontaneous or traumatic PTX. ETCO₂ levels were measured before and after tube thoracostomy, alongside other clinical parameters.

The flowchart and summary of the study



The flowchart and summary of the study



Results: Statistical analysis revealed significant differences in ETCO₂ values before tube insertion and at 2 and 4 hours post-insertion ($P < .001$). The P-values were also less than .001 for all pairwise comparisons in the post hoc analysis. Changes in ETCO₂ levels post-treatment indicated potential as a parameter for monitoring treatment efficacy. However, no significant difference was observed between spontaneous and traumatic PTX cases.

Changes in ETCO₂ Levels Following Chest Tube Insertion

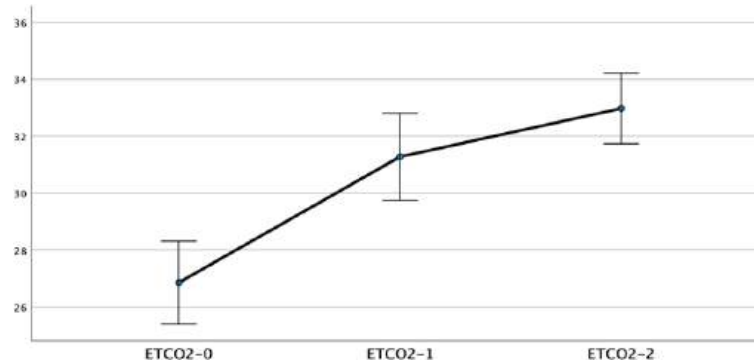


Table 2. Distribution of ETCO₂ levels in patients and the relationship between values before and after tube thoracostomy

Table 2. Distribution of ETCO₂ levels in patients and the relationship between values before and after tube thoracostomy

Mean(SD)		p-value	95% CI		
			Lower Bound	Upper Bound	
ETCO2-0	26.86 (4.72)	<0.001*	25.408	28.313	
ETCO2-1	31.27 (4.97)		29.749	32.810	
ETCO2-2	32.97 (4.01)		31.741	34.212	
Post-Hoc Pairwise Comparisons		Mean diff	p-value		
ETCO2-0	ETCO2-1	-4.419	<0.001**	-6.199	-2.638
	ETCO2-2	-6.116	<0.001**	-8.027	-4.205
ETCO2-1	ETCO2-2	-1.698	0.001**	-2.785	-6.11
Comparison of ΔETCO2 Values					
ΔETCO-1	-4.42 (4.68)	<0.001†	0.818	2.577	
ΔETCO-2	-6.12 (5.02)				
The mean difference is significant at the .05 level.					
*Repeat Measured Anova (Greenhouse-Geisser)					
†Paired Sample T Test					
**Adjustment for multiple comparisons: Bonferroni.					

Conclusions: ETCO₂ monitoring emerges as a promising tool in PTX management, offering insights into treatment response. Further research is warranted to optimize its integration into clinical practice and enhance PTX patient care.

Keywords: Pneumothorax, Tube thoracostomy, End-tidal carbon dioxide



Ref No: 2833

Pub No: S-180

Evaluation of Patients With Penis Fracture: Our Clinical Experiences

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Background and aim: Penile fracture is the tearing of the tunica albuginea in the corpus cavernosum as a result of trauma to the erect penis. Penile fracture may also be accompanied by partial or complete urethral rupture and/or deep dorsal vein injuries. In this study, we aimed to retrospectively evaluate the treatment approaches, clinical features and follow-up of patients who were consulted to our clinic from the emergency department due to penile fracture.

Methods: A total of 8 patients who were admitted due to penile fracture as a result of examinations performed at Erzurum City Hospital Emergency Department between June 2021 and June 2024 were included in the study. Demographic and clinical characteristics of the patients, laboratory and radiological examinations, procedures performed, patient files, visit and operation notes of patients who underwent surgical treatment, and patient discharge reports were evaluated retrospectively. All patients were diagnosed with penile fracture through physical examination.

Results: The mean age of the patients in our study was 36.5 ± 13 (21-69) years. It was recorded that 7 of our cases presented within the first 24 hours and all of them underwent emergency surgery. One case presented 1 week after penile fracture. There were defects varying in length between 1-2.5 cm in the tunica albuginea of the right corpora cavernosa in 4 patients, left 3 patients and both corpora cavernosa in 1 patient. The patient with bilateral tears also had complete urethral rupture. When the patient data were examined, it was observed that 1 patient had decreased erection quality, 3 patients had painful erection and 2 patients had premature ejaculation as long-term postoperative complications.

Penile fracture



Penile ecchymosis due to penile fracture "eggplant deformity"

Penile fracture surgical treatment



Visualization of the defect area in penile fracture

Penile fracture after surgical treatment



Suturation/repair of the defect area

Conclusions: Penile fracture cases are quite common in our country and the number is increasing. It is important to know the diagnosis and treatment well. According to our 3-year experience, early emergency surgical intervention is an effective treatment method to prevent postoperative complications.

Keywords: Trauma, Penile, Fracture



Ref No: 3157

Pub No: S-172

Evaluation of hemoglobin and eosinophil count in patients receiving thrombolytic treatment

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Background and aim: Stroke ranks among the primary contributors to disability and mortality on a global scale. Recent advances in ischemic stroke pathophysiology emphasize the significant role of the immune system in both stroke-related damage and neuroprotection.

Methods: From January 1, 2019, to April 1, 2022, all patients aged 18 years and over who were diagnosed with acute ischemic stroke in the emergency department and treated with intravenous recombinant tissue plasminogen activator (r-tPA) within 4.5 hours of stroke onset were included in this cross-sectional retrospective study. Gender, age, onset of symptoms, complaints, National Institutes of Health Stroke Scale (NIHSS) score, stroke-affected area, as well as blood cell types and hemoglobin levels were recorded.

Results: A total of 61 people were included in the study. Four patients died during follow-ups. The mean duration of symptoms upon admission was 86.23 ± 56.37 minutes. The mean NIHSS score of patients was found to be 9.16 ± 3.88 . There was a statistically significant positive correlation between age and symptom duration ($p < 0.002$, $r: 0.391$). A statistically significant negative correlation was found between eosinophil count and NIHSS score ($p < 0.012$, $r: -0.321$) and between eosinophil count and symptom duration ($p < 0.042$, $r: -0.261$). There was a negative correlation between hemoglobin levels and mortality ($p < 0.013$, $r: -0.318$). A negative correlation was observed between the eosinophil-to-neutrophil ratio (ENR) and NIHSS score ($p < 0.017$, $r: -0.305$) as well as between ENR and symptom duration ($p < 0.034$, $r: -0.271$). For each one-unit increase in hemoglobin, the odds of mortality decrease by a factor of 0.488.

Conclusions: Certain blood cell types (neutrophils, eosinophils, and lymphocytes) play an active role in determining stroke prognosis. A detailed explanation of the role of leukocyte types lays the foundation for "immunomodulation," which could be a promising novel treatment modality for future stroke patients

Keywords: eosinophil, Thrombolytics, stroke, neuromodulation



Ref No: 3234

Pub No: S-081

Hospitalization or discharge status of patients under observation

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Background and aim: IN CASE OF PROLONGED DIAGNOSIS, EXAMINATION AND TREATMENT PROCESSES OF PATIENTS WHO APPLY TO OUR EMERGENCY DEPARTMENT IN THE FIELDS OF SCIENCE, TRAUMA AND RESUSCITATION, THE PATIENT IS TAKEN TO THE OBSERVATION AREA AND FOLLOW-UP IS CONTINUED IN OBSERVATION IN ORDER FOR THESE PROCESSES TO CONTINUE SUSTAINABLE. OUR STUDY AIMED TO DETERMINE WHICH RELEVANT BRANCHES THE PATIENTS TAKEN INTO THE OBSERVATION AREA NEED MORE IN THE PHASE OF FURTHER EXAMINATION AND TREATMENT AND THE DISCHARGE RATES FROM OBSERVATION.

Methods: A TOTAL OF 1606 PATIENTS OF ALL AGE GROUPS WHO APPLIED TO OUR HOSPITAL'S EMERGENCY SERVICE BETWEEN 1 MARCH AND 19 SEPTEMBER 2024, WHOSE EXAMINATION AND TREATMENT TAKEN MORE THAN 4 HOURS AND WERE TURNED OFF TO OBSERVATION, WERE ACCEPTED IN THIS STUDY. OUR STUDY IS A RETROSPECTIVE COHORT STUDY. .

Results: OUT OF 1606 PATIENTS, 1156(71.98%) PATIENTS WERE ADMITTED DUE TO THE RELATED CLINICS OF THE HOSPITAL PROVIDING THEM AND/OR THE FINDING OF A SUITABLE PLACE. MOST OF THE ADMITTED PATIENTS WERE ADMITTED TO THE INTERNAL MEDICINE SERVICE AND THE INTENSIVE CARE UNIT (592,(51.21%)). OUT OF 1606 PATIENTS, 312(19.42%) WERE DISCHARGED FROM THE EMERGENCY OBSERVATION AREA WITH RECOVERY.

Conclusions: OUT OF 1606 PATIENTS, 312(19.42%) WERE DISCHARGED FROM THE EMERGENCY OBSERVATION AREA WITH RECOVERY.

Keywords: EMERGENCY SERVICE, OBSERVATION, INTERNAL MEDICINE, YELLOW AREA



Ref No: 3327

Pub No: S-174

Retrospective Study on The Impact Of Neurovascular Calcifications On Increasing Intracranial Hemorrhage Risk In Acute Ischemic Stroke Patients Treated With Thrombolytic Therapy In The Emergency Department

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Background and aim: In ischemic stroke, there is a risk of hemorrhage during intravenous tissue-type plasminogen activator treatment. Treatment plans are adjusted to minimize the risk of hemorrhage. Our study aims to assess whether intravascular calcifications can predict the risk of hemorrhagic transformation and to evaluate the impact of calcifications on patient outcomes.

Methods: In our retrospective observational study, 244 patients who presented to our emergency department with ischemic stroke and received IV tPA between January 2018 and December 2022 were included. However, after CT angiography evaluations, the data of 243 patients were analyzed. The imaging results of the patients were reassessed by the Radiology Department and scored according to the Kockelkoren classification. Patient groups were formed based on the presence of calcifications, and hemorrhage as well as modified Rankin Scale (mRS) scores at discharge were evaluated.

Results: Calcification was more frequent in stroke patients with hypertension (68% vs. 50%, $p=.043$) or the elderly (72.6 vs. 59.1, $p<.001$). Higher RDW values at admission were linked to calcification (14.6 vs. 13.6, $p<.001$). Those with calcification had higher rates of discharge with mRS scores of 3-6 (91.7% vs. 82.8%, $p=.041$), but no difference in NIHSS scores. Media layer calcification correlated with poorer outcomes (56.9% vs. 41%, $p=.03$ ipsilateral; 54.1% vs. 39.6%, $p=.01$ contralateral). The presence of carotid calcification on the contralateral side (OR, 2.95; 95% CI, 1.09–7.98; $P=.033$), when assessed alongside the risk factors associated with poor prognosis in stroke, is predicted by multivariate regression analysis to significantly increase the likelihood of adverse outcomes. Although not statistically significant, it was observed that patients with calcification on the stroke-affected side did not have an increased risk of hemorrhage (OR, 0.37; 95% CI, 0.136–1.02; $P=.055$).

Conclusions: It was determined that calcification is not a significant predictor of hemorrhage. However, calcification was observed to be an independent predictor of adverse outcomes.

Keywords: Ischemic Stroke, Calcification, Kockelkoren Score, Neurologic outcome



Ref No: 3340
Pub No: S-193

Platelet/calcium Ratio is a Predictor of Multivessel Disease in Patients Evaluated as Unstable Angina Pectoris in the Emergency Department.

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Background and aim: There is no parameter that can predict multivessel disease (MVD) in coronary arteries in patients presenting to the emergency department with symptoms suggestive of acute coronary syndrome. In this study, we aimed to evaluate whether platelet/calcium ratio is a simple and useful parameter to predict MVD in patients with unstable angina pectoris in the emergency department.

Methods: Patients were divided into two groups as those with and without MVD. In our study in which 801 patients were analyzed, MVD was not observed in 705 patients and MVD was detected in 96 patients.

Results: According to the analysis, there was no significant difference between the two groups in terms of gender, CHF, goiter, CVA, leukocyte (WBC) level and hemoglobin (Hb) level, whereas there was a significant difference between the groups with and without MVD in terms of HT, DM, COPD, age, Glomerular filtration rate (GFR) level, LDL level, platelet level, calcium level and platelet calcium ratio (PCR) (Table 1).Univariate and multivariate logistic regression analyses were then performed to examine the value of PCR, LDL level, GFR level, HT and DM diagnoses in predicting MVD. According to univariate logistic regression analysis, PCR, HT, DM and GFR significantly predicted MVD, whereas LDL level alone did not predict MVD. In multivariate logistic regression analysis including the same variables, the situation did not change for LDL level, PCR, HT and GFR level whereas DM was insufficient to predict MVD when considered together with other variables (Table 2).

Table 1: Baseline Characteristic Features

Variables	Multiple vascular disease		P value
	Present(N=96)	Absent(N=705)	
Male Gender(%)	54(56.3)	353(50.1)	0.262
HT, n(%)	54(56.3)	217(30.8)	<0.001
DM, n(%)	13(13.5)	50(7.1)	0.028
CHF, n(%)	2(2.1)	3(0.4)	0.053
GOITER, n(%)	3(3.1)	22(3.1)	0.998
CVA n(%)	1(1)	9(1.3)	0.846
COPD, n(%)	12(12.5)	31(4.4)	<0.001
Age (years)	60.32(9.52)	47.88(11.89)	<0.001
WBC (10 ³ /μL)	7.97(6.74-10.14)	8.15(6.94-10.07)	0.579
HB (g/dL)	15(13.6-16.25)	15.1(13.9-16.4)	0.305
GFR	91.35(80.07-110.02)	108.8(92.43-122.87)	<0.001
LDL (mg/dl)	139(115.5-166.5)	127(101-149)	0.004

Calcium (mol/L)	9.5(8.9-9.9)	9.64(9.3-10)	0.012
Platelets (10 ³ /μL)	254 (218-300)	282 (240-335)	<0.001
PCR	28.04±9.43	30.64±8.66	0.01

HT: hypertension, DM: diabetes mellitus, CHF: congestive heart failure, CVA: cerebrovascular accident, COPD: chronic obstructive pulmonary disease, WBC: leukocyte, HB: Hemoglobin, GFR: Glomerular filtration rate, LDL: Low density lipoprotein, PCR: Platelet Calcium ratio.

Table 2: Univariate and multivariate logistic regression analysis for the predictors of multivessel disease

Variables	Univariate regression			Multivariate regression		
	Odds ratio	Confidence Interval(%95)	P value	Odds ratio	Confidence Interval(%95)	P value
PCR	.962	(.935-.990)	0.039	.961	.925-.997	.034
HT	2.89	(1.87-4.46)	<.001	2.154	(1.210-3.834)	.009
DM	.487	(.254-.935)	.031	1.954	(.833-4.585)	.124
LDL	1.002	.999-1.004	.258	1.001	(.997-1.004)	.693
GFR	.982	.974-.991	<.001	.989	(.978-1.000)	.046

PCR: Platelet Calcium Ratio, HT: Hypertension, DM: Diabetes Mellitus, LDL: Low Density Lipoprotein, GFR: Glomerular Filtration Rate.

Conclusions: In our emergency departments where the workload is so high, there is a need for a simple and useful parameter that can predict the prevalence of coronary artery disease in patients with unstable angina pectoris. PCR, which was the subject of our study, was evaluated as a simple and useful parameter that can be used for this problem.

Keywords: Multivessel disease, Platelet/Calcium ratio, Emergency department



Ref No: 3354
Pub No: S-212

Statistical Review of Logistic Regression Analysis Performed in Articles Examining Mortality-related Factors in Trauma Patients

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Background and aim: In order to interpret the results obtained from a research correctly, statistical tests suitable must first be selected. The purpose of using Logistic Regression Analysis is to establish a model that can define the relationship between dependent and independent variables in a way that has the best fit using the fewest variables. For the analysis to be optimal, the some assumptions need to be considered. It is very important for emergency services and surgeons to know which factors can predict mortality in trauma patients. This is where logistic regression analysis comes into play. In this study, we wanted to examine how logistic regression analyses were performed in articles analyzing factors that predict or affect mortality, which guide our daily practice.

Methods: The first 50 articles published in Web of Science and most cited on the subject of adult trauma were examined. Included articles: 1- The study population was adult patients aged 18 and over 2- The statistical methods used included logistic regression analysis 3- The factors affecting mortality in trauma patients were examined 4- Articles with full text access Parameters examined in the articles: 'assumptions of logistic regression analysis, how the included factors were included, multicollinearity, goodness of fit were examined.

Results: The majority of the articles included in the study were retrospective studies published in Q1 journals. Variable selection ($p < 0.2$, $p < 0.15$, backward stepwise) was explained in half of the articles. Model goodness-of-fit test (Hosmer Lemeshow) was explained in 20% of the articles. Methods used for multicollinearity (VIF, CI, CT, Correlation coefficient) were explained in only 10% of the articles.

Conclusions: Detailed explanation of the statistics will increase the statistical power of the research and increase confidence in the results. In addition, the researcher who reads the articles critically will thus be able to confidently apply the approaches they will add to their practice.

Keywords: Regression Analyses, trauma, mortality



Ref No: 3433
Pub No: S-169

Evaluation of The Prognostic Value of Systemic Inflammation Indexes in Patients Diagnosed with Acute Coronary Syndrome in the Emergency Department

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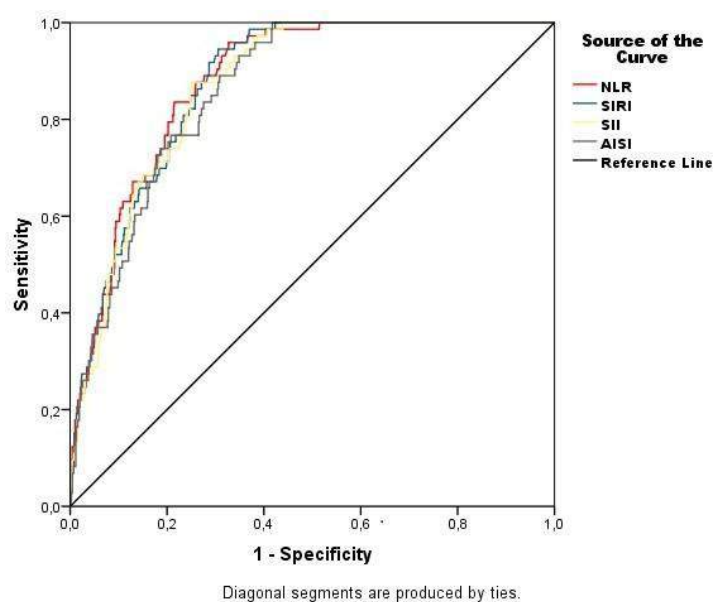
Busra Demirci SAMEDOV / Yalova State Hospital

Background and aim: Cardiovascular diseases progress with inflammation. The aim of this study was to determine the prognostic value of systemic inflammation markers in predicting mortality in cases with acute coronary syndrome (ACS).

Methods: This retrospective cross-sectional study included patients who presented at the Emergency Department (ED) with ACS (STEMI-Non-STEMI). Patients who met the study inclusion criteria were selected retrospectively and data were retrieved from the hospital automated records system. Systemic inflammatory indexes (NLR, SII, SIRI, AISI) were calculated. The patients were grouped according to mortality status and were examined in two groups as STEMI and non-STEMI.

Results: Evaluation was made of 509 patients, comprising 77.2% males and 22.8% females with a mean age of 57.7 years. STEMI was diagnosed in 309 patients and NSTEMI in 200. The most common comorbidities were hypertension in 27.4% of cases, coronary artery disease in 19.4%, and diabetes mellitus in 16.8%. Mortality developed in 14.3% of the cases. The mean age was determined to be significantly higher in the NSTEMI group than in the STEMI group ($p < 0.05$). The neutrophil value, SII, SIRI, and AISI values were determined to be significantly higher in the NSTEMI group than in the STEMI group ($p < 0.05$ for all). The NLR, SIRI, SII, and AISI values were determined to be significantly higher in the exitus patient group than in the survivors group ($p < 0.05$ for all). The multivariate regression analysis results showed that the NLR, SIRI and AISI values had an independent significant effect in the differentiation of surviving and exitus patients ($p < 0.05$).

ROC analysis graphic of Inflammation Indices for mortality



1

Table 1. Analyses of the sociodemographic data between the STEMI and Non-STEMI groups

		STEMI Group		Non-STEMI Group		p			
		Mean±SD/n-%	Median	Mean±SD/n-%	Median				
Age on presentation (years)		55.9±	11.4	55.0	60.6±	12.4	60.0	0.000	m
Gender	Male	253	81.9%		140	70.0%		0.002	X ²
	Female	56	18.1%		60	30.0%			
Comorbidities									
CAD		61	19.7%		88	44.0%		0.000	X ²
HT		105	34.0%		106	53.0%		0.000	X ²
DM		60	19.4%		69	34.5%		0.000	X ²
CLF		3	1.0%		13	6.5%		0.000	X ²
CVE		3	1.0%		4	2.0%		0.330	X ²
HL		14	4.5%		6	3.0%		0.385	X ²
CRF		11	3.6%		11	5.5%		0.293	X ²
CABG		8	2.6%		24	12.0%		0.000	X ²
COPD		8	2.6%		12	6.0%		0.053	X ²
Smoking status	(-)	226	73.1%		155	77.5%		0.268	X ²
	(+)	83	26.9%		45	22.5%			



Family History	(-)	235	76.1%	149	74.5%	0.691 ^{X²}
	(+)	74	23.9%	51	25.5%	

^m Mann-Whitney U-test / ^{X²} Chi-square test

Analyses of the sociodemographic data between the STEMI and Non-STEMI groups

2

Table 2a. Analysis of the Vital and Hematological Parameters between the Groups

	STEMI Group			NSTEMI Group			p
	Mean±SD	Median		Mean±SD	Median		
Systolic blood pressure	136.1 ±	32.6	127.0	136.2 ±	30.3	129.0	0.576 ^m
Pulse	86.5 ±	22.2	84.0	101.6 ±	25.2	100.0	0.000 ^m
Temperature	36.6 ±	0.5	36.8	36.6 ±	0.5	36.8	0.133 ^m
WBC	11.8 ±	4.0	11.5	10.0 ±	3.3	9.7	0.000 ^m
Neutrophils	10.4 ±	5.9	8.4	16.7 ±	6.7	17.1	0.000 ^m
Lymphocytes	2.8 ±	1.5	2.6	2.3 ±	1.1	2.2	0.001 ^m
Monocytes	1.2 ±	0.4	1.1	1.2 ±	0.4	1.1	0.686 ^m
RBC	4.8 ±	0.7	4.9	4.7 ±	0.6	4.7	0.023 ^m
HGB	143.5 ±	19.7	147.0	137.1 ±	19.7	140.0	0.000 ^m
PLT	344.9 ±	104.2	315.0	345.1 ±	104.4	317.0	0.770 ^m
Urea	36.8 ±	19.6	33.0	38.7 ±	19.5	36.0	0.027 ^m
Creatinine	1.03 ±	0.64	0.90	1.05 ±	0.73	0.90	0.636 ^m
CRP	15.9 ±	38.6	4.7	17.4 ±	39.4	5.1	0.248 ^m
LDH	294.3 ±	179.2	239.0	265.2 ±	320.2	214.0	0.000 ^m
Lactate	2.8 ±	1.8	2.5	2.2 ±	1.0	2.1	0.000 ^m
Troponin	246.1 ±	505.8	46.0	557.6 ±	1330.8	100.7	0.005 ^m
Glucose	166.8 ±	79.5	142.0	160.3 ±	76.2	130.0	0.041 ^m
HDL	41.4 ±	12.2	39.0	40.3 ±	11.2	39.0	0.454 ^m
LDL	135.8 ±	58.5	130.0	128.9 ±	73.5	124.5	0.016 ^m
Cholesterol	199.4 ±	53.3	192.0	187.8 ±	49.6	192.0	0.055 ^m
Triglycerides	152.3 ±	115.9	122.0	175.4 ±	144.4	146.0	0.005 ^m
NLR	5.5 ±	6.1	3.4	9.6 ±	10.2	7.4	0.000 ^m



Table 2b. Analysis of the Inflammatory Indexes, Duration of Chest Pain, and Exitus Status between the Groups

	STEMI Group		NSTEMI Group		p
	Mean±SD/n-%	Median	Mean±SD /n-%	Median	
SIRI	6.2 ± 6.9	3.9	11.2 ± 14.1	8.3	0.000 ^m
SII	1869.0 ± 2084.5	1095.0	3362.9 ± 4416.3	2469.7	0.000 ^m
AISI	2133.9 ± 2316.7	1265.8	4052.7 ± 6993.9	2762.0	0.000 ^m
Duration of Chest Pain	287.8 ± 292.2	185.0	1641.2 ± 1642.2	1220.0	0.000 ^m
Hospitalization Duration	3.7 ± 2.5	3.0	4.3 ± 3.4	3.0	0.210 ^m
Length of hospital stay	1-3 days	201	65.0%	106	53.0%
	> 4 days	108	35.0%	94	47.0%
					0.007 ^{x²}
Exitus	(-)	269	87.1%	167	83.5%
	(+)	40	12.9%	33	16.5%
					0.264 ^{x²}

^mMann-Whitney U-test / ^{x²} Chi-square test

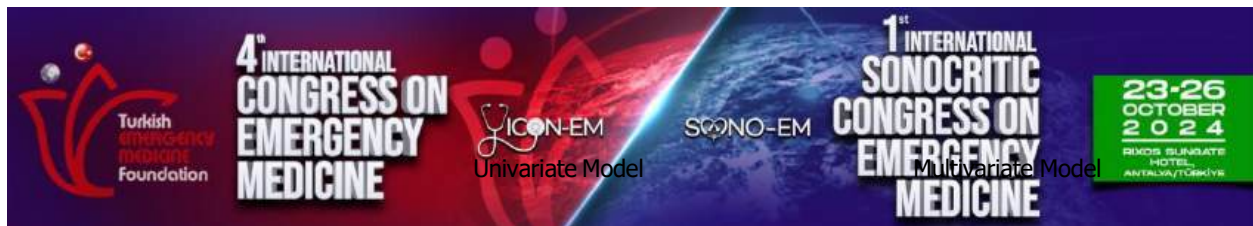
Analysis of the Vital and Hematological Parameters between the Groups

3

Table 3a. Comparisons of Hematological and Derived Inflammatory Indexes in the Exitus and Surviving Groups

	Exitus (-)		Exitus (+)		p
	Mean±SD	Median	Mean±SD	Median	
Lactate	2.5 ± 1.2	2.3	3.4 ± 3.0	2.6	0.031 ^m
Troponin	326.2 ± 785.8	54.0	612.8 ± 1518.6	125.0	0.034 ^m
Glucose	157.6 ± 69.3	135.0	203.8 ± 110.8	167.0	0.002 ^m
HDL	40.8 ± 11.4	39.0	41.9 ± 14.1	39.0	0.759 ^m
LDL	136.9 ± 66.8	130.0	107.5 ± 45.2	95.0	0.000 ^m
Cholesterol	197.9 ± 50.9	197.0	172.8 ± 55.2	159.0	0.000 ^t
Triglycerides	167.8 ± 134.6	135.0	120.2 ± 61.6	106.0	0.009 ^m
NLR	5.9 ± 6.4	4.2	14.2 ± 13.0	10.9	0.000 ^m
SIRI	6.9 ± 9.6	4.6	15.6 ± 12.8	12.0	0.000 ^m
SII	2097.6 ± 3046.6	1411.1	4596.9 ± 3841.3	3660.1	0.000 ^m

Table 3b. Regression Analysis of Inflammation Index Parameters in Respect of Mortality





	OR	95% CI	p	OR	95% CI	p
NLR	1.141	1.094 - 1.190	0.000	1.166	1.075 - 1.266	0.000
SIRI	1.084	1.052 - 1.118	0.000	1.116	1.016 - 1.225	0.021
SII	1.000	1.000 - 1.000	0.000	-	-	-
ASI	1.000	1.000 - 1.000	0.000	1.000	1.000 - 1.000	0.000

^tIndependent Samples t-test / ^mMann-Whitney U-test, Logistic Regression (Forward LR)

Comparisons of Hematological and Derived Inflammatory Indexes in the Exitus and Surviving Groups

Conclusions: Systemic inflammation indexes were determined to be significant in the prediction of mortality in patients with ACS.

Keywords: STEMI-NSTEMI, Systemic inflammation indexes



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Pub No: P-153

Demographic data in bladder cancer

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Background and aim: Delay in the diagnosis and treatment of bladder cancer adversely affects the prognosis of the disease. There are studies showing that if the time until radical cystectomy exceeds three months after the diagnosis of muscle-invaded bladder cancer, higher pathologic stage and lower survival will be encountered (1). Currently, the combination of cystoscopy and cytologic examination of urine is the gold standard method in the diagnosis of bladder cancer (2). It is clear that early diagnosis has a positive effect on mortality and prognosis (1, 2). In this study, we aimed to determine the demographic data of bladder cancers and to provide another perspective to the literature.

Methods: In our study, the data of patients with bladder cancer admitted to the emergency department of Niğde Ömer Halisdemir University Training and Research Hospital and hospitalized in the medical oncology clinic within the last 12 months were analyzed after being recorded in the SPSS 26 program. Firstly, the conformity of quantitative data to normal distribution was tested with the SHAPIRO WILK test and the nonparametric Mann Whitney U test was used for the analysis. Qualitative data were presented as percentages.

Results: The study included 25 patients and 96% of the patients were male. The most common presenting symptom was hematuria (88%) and the second most common complaint was pain in the suprapubic region (8%). The mean age of the patients was 54.5±14.6 years. There was no significant statistical difference between the length of hospitalization and gender ($p>0.05$). Intensive care unit hospitalization was performed in 12% of the patients due to nosocomial infection and 1 patient died. There was also a significant statistical difference between hematuria complaint and age ($p<0.05$).

Conclusions: Hematuria is the most common symptom of bladder tumors and hematuria in elderly male patients should make the clinician think of bladder cancer.

Keywords: bladder, cancer



Ref No: 3491
Pub No: S-142

GENERAL OVERVIEW OF GUNSHOT INJURIES IN KARS PROVINCE

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Background and aim: We aimed to review and present our data on gunshot injury cases that presented to the Kars State Hospital and Kafkas University Hospital emergency department in this study.

Methods: Gunshot injury cases that presented to the emergency service between January 2011 and December 2023 and were admitted to various clinics for surgical treatment were included in the study. The demographic characteristics, type of firearm, location of gunshot injuries, duration until presentation to the hospital, injured organs, the treatments used, post-treatment complications and mortality rates were evaluated together with the rate of gun licensing per year. The patients who presented to the emergency service were treated according to the physical examination, laboratory tests and imaging results at presentation.

Results: The 21 gunshot injury cases that presented to the emergency service consisted of 9 females (42.9%) and 12 males (57.1%). The mean age was 39 years for the males and 24 years for the females. The duration of presentation to the hospital after the injury was most commonly 2-4 hours. The most commonly injured organs were the extremities, followed by the abdominal region and cranial region. Open fracture injury patients underwent appropriate debridement, external fixator, and plaque screw, intramedullary nail osteosynthesis; soft tissue injury patients received debridement; and abdominal injury patients underwent laparotomy and appropriate treatment according to the injured organ. Patients who presented with cranial hemorrhage and 4 patients with massive abdominal hemorrhage died. The complications were injury site infection in 5 patients, shortness of extremity in 3 patients.

Conclusions: Gunshot injuries have become more common in rural areas and regions with a lower socioeconomic level in our country together with an increase in the rate of acquiring gun licenses. Gunshot injuries require a long hospitalization duration and can result in high mortality and morbidity rates if prompt intervention is not possible.

Keywords: Gunshot injury, Emergency Service, Surgical Treatment, laparotomy, kars



Ref No: 3494
Pub No: S-071

Missed Traumatic Non-Contiguous Secondary Spinal Fractures

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Background and aim: Multilevel non-contiguous spinal fractures are serious injuries. The incidence of missed diagnoses ranges between 1.6% and 23.8%. The aim of this study is to analyze the frequency, causes, and outcomes of missed diagnoses in the emergency department.

Methods: A total of 259 patients who presented to the emergency department after high-energy trauma, underwent whole spine computed tomography (CT), and were diagnosed with spinal fractures were included in the study. The patients' emergency department and neurosurgery records, along with their spinal CT radiology reports, were retrospectively evaluated.

Results: In 24 cases, secondary non-contiguous fractures were missed during the initial emergency evaluation. Of these, 11 patients required urgent surgery due to vertebral body fractures. For the remaining 13 patients, outpatient follow-up was recommended for the primary fracture. Among the surgically treated patients, 73% had burst fractures at the thoracolumbar junction. In 55% of these cases, the missed pathology was a fracture of the lumbar transverse process. One patient, followed up for the primary fracture, required surgery due to a missed bilateral T10 facet joint fracture. None of the patients exhibited neurological deficits due to the missed fractures.

Conclusions: We believe that the diagnostic process is influenced by the clinician's perception of whether the patient requires surgery. Particularly in cases where primary fractures requiring surgery are present, other regions of the spine may not be thoroughly evaluated. In our series, the incidence of missed diagnoses was 9%, consistent with the literature. None of the patients had missed fractures that required emergency surgery. A thorough anamnesis, physical examination, and detailed radiological evaluation are essential to reduce the risk of missed diagnoses. Additionally, during outpatient follow-ups, we believe that re-examining previous radiological images and reports can be effective in identifying missed fractures.

Keywords: Missed injury, Trauma scan, Delayed diagnosis, Spinal fracture, Non-contiguous spinal fractures



Ref No: 3748
Pub No: S-179

Are hydatid cyst cases increasing? An analysis of city hospital applications

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Background and aim: Hydatid cyst (HC) remains a significant public health issue globally and in our country. This study aimed to analyze the demographic and clinical management data of newly diagnosed HC cases and to assess whether there was an increase in their frequency.

Methods: This retrospective study examined the demographic and clinical characteristics of patients diagnosed with "hydatid cyst" (Echinococcosis) (ICD 10: B67.0-B67.9) for the first time at Ankara Etilik City Hospital Emergency Department between January 1, 2024, and August 1, 2024. The data were compared with cases from the same period in the previous year (January 1, 2023, to August 1, 2023). IBM SPSS Statics v.26 for Windows program was used for statistical data entry. P value <0.05 was considered significant.

Results: Patients were categorized into two groups: 2023 (n=39) and 2024 (n=102). During the study period, total emergency department visits were 454,894 in 2023 and 614,435 in 2024. No significant demographic differences were found between the two groups ($p>0.05$). There was an increase in the percentage of school-age children in 2024 (12.8%-25.5%). Surgical treatments decreased from 33% in 2023 to 28% in 2024, and complications decreased from 33.3% to 23.5%. Notably, other complications such as biliary tract obstruction and bleeding decreased significantly from 20.5% (n=8) in 2023 to 6.9% (n=7) in 2024 ($p=0.019$), suggesting improvements in complication management. Furthermore, the ratio of HC cases to total emergency department visits increased approximately 1.93 times in 2024 compared to 2023.

hepatic and splenic hydatid cyst



colonic hydatid cyst



infected hydatid cyst



Conclusions: The near doubling of HC cases suggests a significant increase in either the prevalence or the detection rate of the disease. To combat this disease, which poses a public health threat, community hygiene, the cleanliness of drinking water, and the management of stray animals are crucial. Further nationwide studies are recommended to better understand this trend.

Keywords: hydatid cyst, emergency medicine, public health



Ref No: 3791
Pub No: S-167

Evaluation of patients diagnosed with pediatric supracondylar humerus fractures in the emergency department of a tertiary hospital

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Background and aim: Supracondylar humerus fractures (SchFs) are the most common type of fracture around the elbow in the pediatric population. The diagnosis of these fractures can be uncertain, and if missed, they can lead to vascular, structural, or neurological injuries. With this study, we aimed to evaluate the demographic and clinical characteristics of SchFs detected in pediatric patients presenting to the emergency department (ED) of a tertiary hospital.

Methods: This study included patients under the age of 18 who presented to the ED of Ankara Etlik City Hospital between January and July 2024 and were diagnosed with SchF. Patient data were obtained retrospectively from the hospital database.

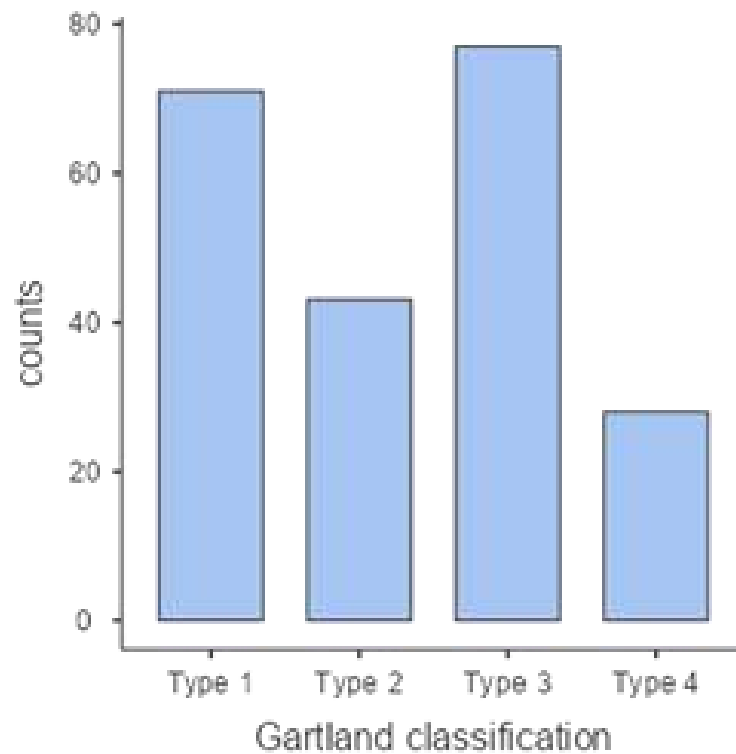
Results: A total of 219 patients were included in our study, consisting of 120 (54.8%) males. The average age of all patients was calculated as 6.89 ± 3.09 years. The average time to presentation was found to be 5.72 ± 8.22 hours. Of the patients included in our study, 125 (57.1%) presented to the ED due to falling from their own height, 39 (17.8%) due to falling from a height, 4 (1.8%) due to a traffic accident, and 51 (23.3%) due to other traumas. Closed SchFs were detected in 215 (98.2%) patients. Neurovascular deficit was identified in 19 (8.7%) patients. Among the patients, 77 (35.2%) had a Type III fracture, 71 (32.4%) had a Type I fracture, 43 (19.6%) had a Type II fracture, and 28 (12.8%) had a Type IV fracture according to the Gartland classification. Closed reduction was performed in 44 (20.1%) patients and open reduction was performed in 10 (4.6%) patients. A total of 124 (56.6%) patients underwent surgical treatment.

Table 1: Demographic and clinical characteristics of patients



Trauma type	N	%
Falling from one's own level	125	57.1 %
Falling from height	39	17.8 %
Traffic accident	4	1.8 %
Others	51	23.3 %
Mechanism type		
Low	101	46.1 %
Middle	90	41.1 %
High	28	12.8 %
Extremity side		
Right	97	44.3 %
Left	122	55.7 %
Fracture type		
Closed	215	98.2 %
Open	4	1.8 %
Deficit		
None	200	91.3 %
Available	19	8.7 %
Fracture type according to Gartland classification		
Tip 1	71	32.4 %
Tip 2	43	19.6 %
Tip 3	77	35.2 %
Tip 4	28	12.8 %
CT need		
None	203	92.7 %
Available	16	7.3 %
Reduction		
None	165	75.3 %
Closed	44	20.1 %
Open	10	4.6 %
Treatment		
Conservative	95	43.4 %
Surgical	124	56.6 %

Figure 1: Fracture type according to Gartland classification



Conclusions: SCHFs are a common reason for ED visits in children. It is critically important for the emergency physician to quickly diagnose these fractures and refer them for treatment in order to improve clinical outcomes.

Keywords: emergency department, supracondylar humerus fractures, paediatrics



Ref No: 3800

Pub No: S-132

The incidence of hyponatremia in geriatric patients presenting to the emergency department with headache

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Background and aim: Hyponatremia is common in the geriatric population, particularly due to physiologic decline, comorbidities, and/or polypharmacy. Headache is one of the most common neurologic complaints in the geriatric population. Hyponatremia is one of the rare conditions that can cause secondary headache. The aim of our study was to evaluate the frequency and etiology of hyponatremia in geriatric patients presenting to the emergency department (ED) with atraumatic headache.

Methods: Patients aged 65 years and older with serum sodium level who presented to ED with headache were included in the study. Demographic data, comorbidities, complaints other than headache on admission, vital signs, laboratory results, medications were retrospectively reviewed. Patients were classified as primary or secondary according to their headache. In hyperglycemic patients, the "corrected sodium" level was calculated

Results: The study included 429 patients. Hyponatremia was detected in 17.7% (n=76) of the patients and was mostly mild (56.6%). When comparing normonatremic and hyponatremic patients, hyponatremic patients had more frequent hypothyroidism and diuretic use, longer hospital stays, higher BUN, lower serum osmolality, hemoglobin and albumin levels ($p < 0.05$ for all values).

table 1

Age, years, median (IQR ¹ 25-75)	72 (68-78)
Sex n (%)	305 (71.1%)
Female	
Co-morbidity n (%)	255 (59.4)
Hypertension	173 (40.3)
Diabetes Mellitus	185 (43.1)
Cardiac disease	44 (10.3)

Chronic renal failure	18 (4.2)
Hypothyroidism	33 (7.7)
Dementia	110 (17)
Chronic obstructive pulmonary disease	
Drugs n (%)	134 (31.2)
ACE-I ²	25 (5.8)
Antidepressant	195 (45.5)
PPI ³	143 (33.3%)
Diuretic	
Symptoms, n (%)	67 (15.6)
Fatigue	55 (12.8)
Dizziness	46 (10.7)
Nasua/Vomiting	30 (7)
Weakness	1 (0.2)
Convulsion	
Vital signs	15 (15-15)
GCS ⁴	86 (80-89)
Pulse	129 (120-134)
Systolic	86 (83-91)
Diastolic	36.2 (36.1-36.2)
Temperature	
Headache type, n (%)	173 (40.3)
Primer	42 (9.8)
Tension	134 (31.2)
Migraine	33 (7.7%)

Seconder	6 (1.4)
Hypertension	6 (1.4)
Hyponatremia	45 (10.5)
Cervical spine disorder	
Drugs	
Unknown	
Hyponatremia, n (%)	76 (17.7%)
Hyponatremia severity, n (%)	
Mild	43 (56.6%)
Moderate	28 (36.8%)
Severe	5 (6.6%)
Laboratory, median (IQR 25-75)	
Hemoglobin	13.1 (12.6-13.7)
Glucose	108 (97-133)
Sodium	138 (135-141)
Corrected sodium	138.3 (136-141.1)
BUN ⁵ mg/dL	46 (35-58)
Creatinine mg/dL	1.02 (1.01-1.2)
Albumin g/dL	4 (3.8 -4.2)
Osmolarity	287 (282-293)
Hospitalization, n (%)	23 (5.4%)
Hospital stay duration, (days) median (IQR 25-75)	4 (2-6)

Demographic data of patients (n=429)

table 2



Hypovolemic	48 (63.2%)
Diuretic use	38 (79.2)
Decreased oral intake/vomiting	10 (20.8%)
Normovolemic	22 (28.9%)
SIADH ¹	15 (68.2%)
Hypothyroidism	7 (31.8%)
Hypervolemic	6 (7.9%)
Chronic renal disease	4 (75%)
Hypoalbuminemia	2 (25%)

Possible causes of the hyponatremic group according to volume status

Conclusions: Older adults are at higher risk for secondary headache. We have demonstrated the presence of hyponatremia in a significant proportion of patients presenting to the emergency department with headache. We have shown that most hyponatremia is hypovolemic and is caused by diuretic use, dehydration, and inappropriate ADH syndrome. Although primary headache is more common in the geriatric age group, hyponatremia should rank high in the etiology of secondary headache in patients with comorbidities and polypharmacy.

Keywords: elderly, geriatric, headache, hyponatremia



Ref No: 4009

Pub No: S-195

Comparison of Analgesic Efficacy of Dexketoprofen and Ibuprofen in Pain Management of Rib Fractures in Emergency Department: A Prospective Randomized Single-Blind Controlled Clinical Study

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Background and aim: Trauma refers to structural and physiological disruptions caused by external forces (mechanical, thermal, electrical, and chemical energy). A significant portion of emergency department visits are trauma-related. Rib fractures occur in 39% of trauma patients, with severe pain and reduced quality of life, particularly limiting functions like coughing and deep breathing. Effective pain management is a universal healthcare standard. This study aims to compare the analgesic efficacy of ibuprofen and dexketoprofen in patients with rib fractures.

Methods: This single-center, prospective, randomized, single-blind, controlled clinical study was conducted at Ankara City Hospital Emergency Department from September 1, 2023, to May 25, 2024, over a period of 9 months. Pain levels at admission and at 30 minutes, 60 minutes, and 120 minutes were recorded using the VAS scale on case report forms by the responsible researcher.

Results: The study was completed with 128 patients, 64 in each group. There were no statistically significant differences in demographic data and VAS scores at admission between the two groups. However, significant statistical superiority was observed in favor of ibuprofen in VAS scores, Δ VAS, and % Δ VAS at all time points ($p < 0.001$; independent sample t-test). The 95% confidence intervals for Δ VAS at 30 minutes, 60 minutes, and 120 minutes were 7.11–15.50, 12.77–21.40, and 16.07–23.79, respectively. The 95% confidence intervals for % Δ VAS at the same time points were 9.66–21.15, 17.41–28.87, and 22.61–31.20, respectively, and were statistically significant. Another primary endpoint was the use of rescue medication, with 2 patients (3.1%) in the ibuprofen group and 20 patients (31.3%) in the dexketoprofen group requiring rescue medication, showing a statistically significant difference between the two groups.

Demographic characteristics of the patients, height, weight, number of rib fractures, rib fracture location and vital signs

Demographic characteristics of the patients, height, weight, number of rib fractures, rib fracture location and vital signs					
Variables		Treatment Group			p-value
		IBU	DEX	Difference - 95% CI	
Gender, n (%)	Male	42 (65.6)	42 (65.6)	-0.18 – 0.18	1.00*
	Female	22 (34.4)	22 (34.4)		
Age, mean ± SS		56.94 ± 15.82	54.23 ± 18.43	-3.30 – 8.71	0.375†
Size, mean ± SS		170.92 ± 11.79	173.80 ± 6.16	-6.17 – 0.42	0.087†
Weight, mean ± SS		72.02 ± 7.13	74.36 ± 7.83	-4.96 – 0.27	0.079†
BMI, mean ± SS		24.98±4.70	24.60±2.22	-0.90 – 1.66	0.561‡
Fracture localization , n (%)	Left	40(62.5)	33(51.6)	-0.06 – 0.28	0.211*
	Right	24(37.5)	31(48.4)		
Number of Fractures , med(25-75%)		2(2-3)	2(2-3)		0.805‡
BP Systolic, mean ± SS		135.59 ± 13.32	135.16 ± 11.21	-3.87 – 4.74	0.841 †
BP diastole, mean ± SS		69.16 ± 10.77	71.1 ± 9.50	-5.52 – 1.58	0.275 †
Pulse/Minute , mean ± SS		75.44 ± 11.34	78.56 ± 11.60	-7.14 – 0.89	0.126†
Saturation -%, ortalama ± SS		94.81 ± 2.10	95.64 ± 1.81	-1.51 - -0.14	0.018*
Respiratory Rate/Minute , med (25-75%)		18 (17 - 19)	18 (17 - 20)		0.384‡
*Pearson Chi-square test					
†Student-t test					
‡Mann Whitney-U					
CI: Confidence Interval, SS: Standard Deviation, med: median, BMI: Body Mass Index , BP: Blood Pressure					

VAS Comparison Between Groups

VAS Comparison Between Groups				
Variables	Treatment Groups			p-Value
	IBU Mean ± SS	DEX Mean ± SS	Difference- 95% CI	
VAS-0	78.11 ± 6.72	79.86±8.53	-4.43 - 0.93	0.200*
VAS-30	49.14 ± 16.81	62.20±13.41	-18.38 - -7.74	<0.001*
VAS-60	25.83 ±14.61	44.67±13.21	-23.71 - -13.97	<0.001*
VAS-120	6.28 ± 8.71	27.97 ±11.31	-25.22 - - 18.15	<0.001*
*Independent samples-t test CI: Confidence Interval SS: Standard Deviation				

Comparison of VAS differences and rescue medication use between groups

Comparison of VAS differences and rescue medication use between groups				
Variables	Treatment Groups			p-value
	IBU Mean ± SS	DEX Mean ± SS	Difference- 95% CI	
ΔVAS-30	28.96 ± 13.41	17.65±10.38	7.11 – 15.50	<0.001*
ΔVAS-60	52.28 ± 12.86	35.18±11.77	12.77 - 21.40	<0.001*
ΔVAS-120	71.82± 10.18	51.89 ±11.81	16.07 – 23.79	<0.001*
ΔVAS%-30	37.81 ± 18.95	22.40 ± 13.43	9.66 – 21.15	<0.001*
ΔVAS%-60	67.43 ±1 7.99	44.29 ± 14.58	17.41 – 28.87	<0.001*
ΔVAS%-120	92.03 ± 11.10	65.08 ± 13.59	22.61 – 31.29	<0.001*
Rescue Medication Use (%)	2(3.1)	20(31.3)	-0.64 - -0.34	<0.001†
*Independent samples-t test †Pearson Chi Square Test CI: Confidence Interval,SS: Standard Deviation				

Conclusions: Our findings indicate that ibuprofen provides faster and superior analgesic efficacy compared to dextketoprofen in the pain management of rib fractures.

Keywords: Rib Fracture, Ibuprofen, Dextketoprofen, Pain, VAS (Visual Analog Scale)



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Can the Systemic Inflammatory Index be used as a Mortality Indicator in Patients Diagnosed with Acute Ischemic Stroke in the Emergency Department?

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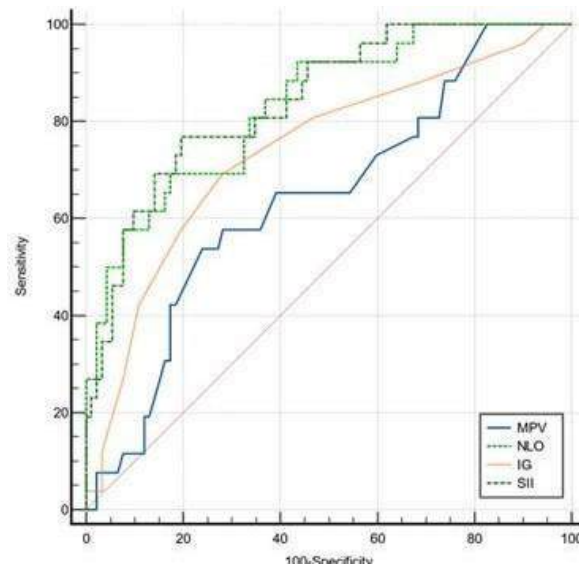
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Background and aim: Our study aimed to examine the relationship between in-hospital mortality, intracranial bleeding complications, and systemic inflammatory index (SII) in patients who visited the ED with acute ischemic stroke.

Methods: Our study was conducted as descriptive, prospective, and single-center. The chi-square test was used to compare categorical data. The normal distribution of continuous variables was evaluated with the Kolmogorov-Smirnov test. Mann-Whitney U test was used to compare continuous variables that did not show normal distribution. ROC analyses of MPV, NLR, IG, and SII values were performed to predict mortality. Did not show normal distribution were evaluated using "Friedman One-Way Repeated Measure Analysis of Variance by Ranks." "The Wilcoxon signed-rank test" was used to analyze the data found to be significant in the Friedman Test. Statistically significant value was accepted as $p < 0.05$.

Results: One hundred thirty patients diagnosed with AIS were included. The mean age was 69.8 ± 12.3 years, and 57% ($n=75$) were male. While 53.8% of the patients were given intravenous tissue plasminogen activator, 46.2% were treated with mechanical thrombectomy. The in-hospital mortality of the patients was 23.1% ($n=30$). It was determined that the ability of MPV, NLR, IG, and SII values to predict mortality was statistically significant (p -value for MPV = 0.038, other p -values = < 0.001). NLR ratio ($AUC=0.818$) had the highest discriminatory ability in predicting mortality. When the NLR ratio was > 7.65 , its sensitivity and specificity in predicting mortality were 70% and 79%. The sensitivity of the SII index ($AUC=0.808$) in predicting mortality was 66.6%, and its specificity was 79% when $> 1641 \times 103/\mu l$.

Comparison of ROC curves of MPV, NLR, IG and SII values on the 3rd day of hospitalization in terms of mortality



ROC Curve Analyses of MPV, NLR, IG and SII values in terms of mortality

	AUC (p value)	Cut-off	Sensitivity (%95 CI)	Spesifity (%95 CI)	LR+	LR-	PPV	NPV
MPV	0,621 (0,038)	>10,7	53,3 34,3- 71,7	74 64,3- 82,3	2,05	0,63	38,1	84,1
NLR	0,818 (<0,001)	>7,65	70 50,6-85,3	79 69,7- 86,5	3,33	0,38	50	89,8
IG	0,739 (<0,001)	>0,5	69,2 48,2-85,7	71,7 61,4- 80,6	2,45	0,43	40,9	89,2
SII	0,808 (<0,001)	>1641	66,6 47,2- 82,7	79 69,7- 86,5	3,17	0,42	48,8	88,8

Conclusions: Our pioneering study highlights the dynamism of MPV, NLR, IG, and SII in AIS over time. The SII index is a good prognostic marker for predicting in-hospital mortality on the third day of hospitalization in acute ischemic stroke patients.

Keywords: Ischemic Stroke, Hospital Mortality, Complications, Inflammation, Neutrophils



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Comparison of The Effect on Survival of Cardiopulmonary Resuscitation Applied with Manual or Mechanical Compression Device

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Background and aim: Since the importance of effective chest compression in survival has been shown, alternative methods to conventional CPR have been developed. Mechanical CPR devices help to perform CPR automatically and effectively. In this study, our aim was to compare the effectiveness of mechanical CPR device and manual CPR in terms of survival in cases of diagnosed prolonged cardiac arrest.

Methods: This thesis study included patients over the age of 18 years who were brought to our emergency department by the rescue medical team as nontraumatic arrest between January 2016 and June 2021, or who were arrested in the emergency department and whose CPR time was longer than 15 minutes. Patients in whom manual compression was started due to cardiac arrest and manual CPR was applied or chest compression was continued with a mechanical CPR device were divided into two groups.

Results: Of the 245 cases included in the study, 161 (65.7%) were male and the mean age was 67.3±17.2 years. Mechanical CPR was performed in 55.5% and manual chest compression in 44.5% of the cases. In-hospital cardiac arrest was present in 76.3% of the patients. While the ROSC was 62.5% in mechanical CPR, it was calculated as 37.5% in manual CPR and it was found to be higher and a significant statistical difference was found ($p < 0.001$). Neurological survival did not differ between groups (based on mRS). In the univariate model, a significant effect of CPR type and CPR duration distribution was observed in separating patients with and without mortality. In the multivariate model, a significant-independent effect of age, CPR type, CPR duration distribution was observed in separating patients with and without mortality ($p < 0.001$, $p < 0.005$ and $p < 0.006$).

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Table 1. Statistical analysis of sociodemographic, clinical, chronic diseases and hematologic parameters between CPR types

	Manuel CPR (n=109) mean±sd / median(25-75)	Mechanical CPR (n=136) mean±sd / median(25-75)	p	
Age	69.0 (53-81)	69.0 (57-83)	0.591	m
Hgb	11.81±2.86	12.02±2.93	0.730	t
Neutrophil	11.3 (7.4-15.5)	9.9 (6.0-14.7)	0.266	m
Lymphocyte	1.5 (0.8-3.3)	1.8 (0.7-4.2)	0.786	m
NLR	6.8 (3.0-14.3)	5.7 (2.0-14.4)	0.405	m
Glucose	176 (121-250)	194 (137-331)	0.092	m
Creatinine	1.5 (1.1-2.9)	1.7 (1.0-2.7)	0.589	m
ALT	29.9 (16-74)	27.0 (17-63)	0.790	m
Lactate	6.2 (2.9-10.9)	5.4 (2.6-10.9)	0.574	m
K+	5.16±1.4	4.86±1.1	0.040	t



Troponin		288 (129-1905)		149 (50-831)		0.089	m
Ph		7.25 (7.1-7.36)		7.24 (7.1-7.35)		0.839	m
PCO ₂		38.3 (29-59)		40.3 (33-52)		0.751	m
BE ⁻		-10.69±8.9		-10.06 ±9.9		0.592	t
HCO ₃		17.9±6.5		17.7±7.2		0.726	t
Duration CPR (Min)		35.42 ± 9.16		37.59 ± 15.74		<0.001	t
First Shockable time (Min)		15.2 ± 12.1		24.2 ± 13.4		0.030	t
Arrest	Out of Hospital	23	21.1%	35	25.7%	0.396	X ²
	In-hospital	86	78.9%	101	74.3%		
Shockable Rhythm	No	96	88.1%	86	63.2%	<0.001	X ²
	Yes	13	11.9%	50	36.8%		
Chronic Diseases	HT(+)	31	37.3%	52	62.7%	0.107	X ²
	DM(+)	26	36.1%	46	63.9%	0.089	X ²
	CAD(+)	46	48.9%	48	51.1%	0.269	X ²
	CHF(+)	28	43.1%	37	56.9%	0.789	X ²
	COPD(+)	11	37.9%	18	62.1%	0.449	X ²
	CRF(+)	23	41.8%	32	58.2%	0.651	X ²
	CVD(+)	18	41.9%	25	58.1%	0.702	X ²
	AF(+)	8	42.1%	11	57.9%	0.828	X ²
	Malignancy (+)	22	40.0%	33	60.0%	0.447	X ²
	ROSC	45	37.5%	75	62.5%	0.031	X ²
Neurological survival at discharge (mRS=0)		4	3.7%	10	7.4%	0.274	X ²
Noncardiac		77	39.1%	120	60.9%	<0.001	X ²
Cardiac		32	66.7%	16	33.3%		

^tIndependent t Test/^m Mann-whitney u test /^{X²} Ki-kare test

HT: Hypertension, DM: Diabetes Mellitus, CAD: Coronary Artery Disease, CHF: Congestive Heart Failure, COPD: Chronic Obstructive Lung Disease, CRF: Chronic renal failure, CVD: Cerebrovascular disease, AF: Atrial fibrillation, ROSC: Return of Spontaneous Circulation, CPR: Cardiopulmonary resuscitation, mRS: modified Rankin Scale

Hgb: Hemoglobin, NLR: Neutrophil Lymphocyte Ratio, ALT: Alanine transferase, K: Potassium, BE: Base Deficit, HCO₃: Bicarbonate

Comparison of The Effect on Survival of Cardiopulmonary Resuscitation Applied with Manual or Mechanical Compression Device

Table 2. Analysis of sociodemographic, haematological and clinical parameters between mortality and survivor groups





		mean±sd / median(25-75)		mean±sd / median(25-75)		p	
Age		56.6±14.7		69.6±17.1		<0.001	t
Hgb		12.8±3.0		11.7±2.8		0.015	t
Neutrophil		12.5±7.1		11.5±7.4		0.305	t
Lymphocyte		3.5 (1.2-6.9)		1.4 (0.7-3.0)		<0.001	m
NLR		3.2 (1.7-7.5)		7.5 (2.6-14.7)		0.005	m
Glucose		198 (134-333)		185 (133-284)		0.578	m
Creatinine		1.2 (0.9-1.7)		1.7 (1.2-3.2)		0.002	m
ALT		44.3 (21-99)		26.8 (16-65)		0.026	m
Lactate		8.1±6.0		7.1±5.4		0.181	t
K+		4.8±1.0		5.0±1.3		0.230	t
Troponin		344 (58-2408)		199 (71-899)		0.553	m
Ph		7.2 (6.96-7.32)		7.2 (7.1-7.35)		0.050	m
PCO ₂		51.7±25.7		45.7±21.8		0.111	t
BE ⁻		-12.02±8.2		-9.98 ±9.7		0.158	t
HCO ₃		17.3±5.9		17.9±7.1		0.524	t
Duration CPR (Min)		30 (20-45)		40 (30-45)		0.006	m
Type of CPR	Manually	10	24.4%	99	48.5%	0.005	X ²
	Mech. Comp. Device	31	75.6%	105	51.5%		
Arrest	Out of Hospital	16	39.0%	42	20.6%	0.011	X ²
	In-hospital	25	61.0%	162	79.4%		
Shockable Rhythm	No	23	56.1%	159	77.9%	0.003	X ²
	Yes	18	43.9%	45	22.1%		
Chronic Diseases	HT(+)	12	29.3%	71	34.8%	0.494	X ²
	DM(+)	12	29.3%	60	29.4%	0.985	X ²
	CAD(+)	21	51.2%	73	35.8%	0.064	X ²
	CHF(+)	10	24.4%	55	27.0%	0.734	X ²
	COPD(+)	5	12.2%	24	11.8%	0.938	X ²
	CRF(+)	5	12.2%	50	24.5%	0.085	X ²
	CVD(+)	5	12.2%	38	18.6%	0.323	X ²
	AF(+)	2	4.9%	17	8.3%	0.450	X ²
	Malignancy (+)	4	9.8%	51	25.0%	0.033	X ²

^tIndependent t Testi/ ^mMann-whitney u test / ^{X²} Ki-kare test

HT: Hypertension, DM: Diabetes Mellitus, CAD: Coronary Artery Disease, CHF: Congestive Heart Failure, COPD:

Chronic Obstructive Lung Disease, CRF: Chronic renal failure, CVD: Cerebrovascular disease, AF: Atrial fibrillation, ROSC: Return of Spontaneous Circulation, CPR: Cardiopulmonary resuscitation



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Analysis of sociodemographic, haematological and clinical parameters between mortality and survivor groups

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Table 3. Univariate and multivariate regression analysis of independent variables for mortality.

	Univariate Model				Multivariate Model					
	Odds Ratio	95% Confidence Interval		p	Odds Ratio	95% Confidence Interval		p		
Age	1.046	1.025	-	1.068	0.000	1.057	1.033	-	1.083	0.001
CPR (manuel)	2.923	1.362	-	6.274	0.006	4.777	1.596	-	14.302	0.005
Duration of CPR (Min)	1.035	1.005	-	1.065	0.022	1.052	1.014	-	1.091	0.006
Lymphocyte	0.785	0.693	-	0.889	0.000	0.835	0.705	-	0.989	0.037
NLR	1.057	1.008	-	1.109	0.023	1.011	0.963	-	1.062	0.664
PH	0.092	0.013	-	0.632	0.015	0.202	0.001	-	27.891	0.525
BE ⁻	0.948	0.906	-	0.991	0.018	1.036	0.923	-	1.164	0.545
Malignancy	3.083	1.048	-	9.072	0.041	3.811	1.102	-	13.177	0.035
Logistic regression (Forward LR), CPR: Cardiopulmonary Resuscitation										

Univariate and multivariate regression analysis of independent variables for mortality.

Conclusions: Decreased muscle strength in prolonged CPR should be supported with a mechanical compression device.

Keywords: Prolonged cardiopulmonary resuscitation, mechanical compression



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Pub No: S-161

Evaluation of the Effects of Mesenchymal Stem Cell Transplantation on Brain, Kidney and Bone Tissue Healing in Experimental Rat Multiple Trauma Model

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Background and aim: Mesenchymal stem cells (MSCs) have shown great potential as a therapeutic approach for tissue injuries, however, research on their use in trauma cases is still limited. To investigate the effects of MSC treatment on tissue healing, we developed a multiple trauma (MT) model in rats by inducing injuries to the brain, kidneys, and bone tissue.

Methods: MSCs were obtained from the femur and tibia bone marrow of four-week-old female rats. 40 Wistar-Albino rats were divided into five main groups (G). Treatment was administered via intravenous (IV) and/or intraventricular (IVC). [G1: MT + IV saline (n=8), G2: MT + IV MSCs (n=8), G3: MT + IV saline + IVC saline (n=8), G4: MT + IV MSCs + IVC MSCs (n=8), G5: Sham (n=8)]. At 24 hours post-trauma, all rats received MSCs or saline, and on the 5th day, half received a booster dose. On day 7th, rats that received a single dose of MSCs or saline were sacrificed. On day 14th, the remaining rats were sacrificed. Blood and tissue samples were then collected for serum analysis of NSE, GFAP, NGAL, IL-18, OC, PLA2, and S100B levels, and histopathological examination.

Results: Histopathological examination of kidney tissues in MSC-treated groups revealed less cell degeneration, necrosis, and hemosiderin accumulation. Bone tissue analysis indicated improved fracture healing in MSC-treated groups. Statistically significant differences were observed in GFAP and osteocalcin levels among groups ($p<0.05$). When the status of receiving booster treatment was compared with GFAP, osteocalcin, PLA2 and S100B values; a statistically significant relationship was found between receiving and not receiving booster treatment in the polytrauma + IV saline treatment group ($p<0.05$).

Conclusions: MSC treatment appears to have positive effects on tissue healing post-trauma. However, further research is needed to establish standardized treatment protocols and develop serum biomarkers for monitoring tissue healing.

Keywords: Mesenchymal stem cells, Experimental multiple trauma model, Biomarker



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Pub No: S-140

The Relationship Between Intraparenchymal Hemorrhage and QTc Interval

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Background and aim: Intraparenchymal hemorrhage (IPH) often results from severe brain trauma and can significantly impact patient outcomes. This study examines the relationship between QTc interval, measured by electrocardiography (EKG), and mortality in IPH patients. The QTc interval reflects cardiac electrical activity and can be associated with various health conditions.

Methods: The study included 81 patients diagnosed with IPH. Data collected comprised age, hemorrhage volume, Glasgow Coma Scale (GCS) score, and QTc interval. Mortality was assessed one week and one month after admission.

Results: QTc Interval and Mortality One-Week Mortality: A positive correlation was found between QTc interval and one-week mortality (Spearman's Rho $r = 0.457$, $p < 0.001$). This indicates that each millisecond increase in QTc interval may raise short-term mortality risk. One-Month Mortality: No significant relationship was observed between QTc interval and one-month mortality (Spearman's Rho $r = 0.095$, $p = 0.397$), suggesting that QTc changes may not influence long-term mortality. Regression analysis (Table-4) supports the role of QTc interval in predicting one-week mortality. Univariate analysis shows a strong effect of QTc on mortality (HR = 0.279, $p < 0.001$), though this effect is less pronounced in multivariate analysis (HR = 0.000-0.004, $p = 0.025$). This indicates that QTc interval could be an independent prognostic factor, but should be considered alongside other factors.

Conclusions: The findings suggest that QTc interval is a significant indicator of short-term mortality in IPH patients. An increase in QTc interval may indicate higher mortality risk. However, the impact of QTc interval on long-term mortality is less clear and warrants further investigation.

Keywords: Glasgow Coma Score, Intraparenchymal hemorrhage (IPH), QTc interval



Ref No: 4531
Pub No: S-143

Falls from heights in and around the city of Kars in Turkey.

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Background and aim: Falls and fall-related injuries are important public health problems and need attention. Our aim in this study was to review and present our data on the cases presenting to the Emergency Department of Kars Kafkas University following a fall.

Methods: We included a total of 153 cases that had presented to the emergency service of Kafkas University Faculty of Medicine between January 2012 and December 2023 in the study. The medical charts were reviewed retrospectively. The demographic features of the patients, fall distance, fall type, organs injured, treatment types, and mortality rates were recorded.

Results: There was a total of 153 patients, consisting of 137 males and 16 females, that had fallen from a height in this study. A total of 129 were admitted while 24 were sent home from the emergency service after the treatment was arranged. The mean age was 29+/-11.2 years. The mean height was 6+/-2 meters. The distribution of injuries was 101 with extremity injuries, 6 with thoracic injuries, 10 with intraabdominal injuries, 4 with head injuries and 32 with multiple organ injuries. We had 77 patients with upper extremity injury and 24 with lower extremity injury. The thoracic injuries consisted of 4 cases with pneumothorax and 2 cases with lung contusion. The intraabdominal injuries involved the liver in 2, small intestines in 5, spleen in 3. Once the cases were admitted to the emergency services, the surgical indication was determined according to the physical examination, laboratory tests and radiological imaging results. The mortality rate was 7.65%. There were 13 patients aged over 65 years. The mean inpatient duration was 20.2+/-14.3 days.

Conclusions: Falls from heights need to be evaluated in a multidisciplinary fashion as supported by imaging methods to determine the trauma severity. Taking the necessary measures and increasing the socioeconomic level of the patients will decrease exposure to such trauma.

Keywords: Fall from height, Kars, emergency, multiple organ injuries, extremity injury



Ref No: 4662
Pub No: S-139

The impact of alcohol intoxication on mortality in patients with traumatic intracranial hemorrhage: a retrospective study

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Background and aim: Traumatic brain injury accounts for one-third of deaths related to trauma. The impact of alcohol on mortality in patients with head trauma remains a subject of debate. In this study, we investigated the effect of alcohol intoxication (ETOH) on mortality in patients with traumatic intracranial hemorrhage.

Methods: This retrospective study included patients over 18 years of age who presented to the emergency department (ED) of a hospital with severe trauma-related intracranial hemorrhage between July 1, 2023, and July 1, 2024. Patients with blood alcohol levels above 10 ng/dl were categorized into the ETOH+ group, while those with levels below 10 ng/dl were placed in the ETOH- group. Our primary outcome was mortality, and secondary outcomes included the need for intubation, the need for surgery, and the length of hospital stay.

Results: The study included 101 patients. Among them, 62 (61.4%) had subarachnoid hemorrhage, 30 (29.7%) had subdural hemorrhage, and 9 (8.9%) had epidural hemorrhage. The ETOH+ group consisted of 21 (20.8%) patients, while the ETOH- group included 80 (79.2%) patients. The 24-hour mortality rate for the patients was 5.9% (n=6), and the 30-day mortality rate was 17.8% (n=18). There was no statistically significant difference in mortality between the 24-hour and 30-day rates ($p=0.443$, $p=0.426$). Additionally, there were no statistically significant differences in the need for surgery and intubation between the ETOH+ and ETOH- groups ($p=0.825$, $p=0.976$). However, the length of hospital stay was significantly longer for the ETOH- group compared to the ETOH+ group ($p<0.005$).

Conclusions: In patients presenting to the ED with severe head trauma and traumatic intracranial hemorrhage, there is no significant difference in early mortality, need for surgery, or need for intubation between ETOH+ and ETOH- groups. However, the length of hospital stay is significantly shorter for ETOH+ patients.

Keywords: Intracranial hemorrhage, Ethanol, Mortality



Ref No: 4757
Pub No: S-201

EVALUATING THE NON-INFECTIOUS CAUSES OF HEMOPTYSIS IN PATIENTS PRESENTED TO THE EMERGENCY DEPARTMENT

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Background and aim: Hemoptysis remains a challenging presenting complaint for clinicians due to wide variety of underlying etiologies, differing clinical presentations, and variable prognoses. Our aim is to highlight key aspects that should be emphasized in the management of non-infectious causes of hemoptysis.

Methods: Patients with a diagnosis of hemoptysis based on ICD codes within the last six months (01.09.2023-29.02.2024) were retrospectively analyzed. The inclusion and exclusion criteria are shown in Figure-1. The cases were evaluated based on age, gender, comorbidities, most common causes, medication use, diagnostic and treatment management, hospitalization, and mortality.

Figure 1. Inclusion and Exclusion Criteria

INCLUSION CRITERIA	EXCLUSION CRITERIA
18 years of age or older - Having true hemoptysis	- Pregnancy - Trauma - Hemorrhage other than hemoptysis (mouth, teeth, GIS) - Infectious pathology

Results: In the last six months, 59 patients with non-infectious hemoptysis were included in the study. The mean age was 57.8 years, and 73% were male. The most common causes were lung cancer (50%) and anticoagulant use (22%). Frequent comorbidities included lung cancer (45%) and hypertension (33%). Anticoagulants were used by 28% of patients, with warfarin being the most common (43%), followed by acetylsalicylic acid (36%) and DOACs (21%). Among those using acetylsalicylic acid, 40% were hospitalized, and 33% of warfarin users required inpatient care. Massive hemoptysis occurred in 13% of cases, with lung cancer responsible in 75% and warfarin use in 25%. In total, 79% of patients were hospitalized, and 13% required ICU admission. Half of the ICU cases were due to lung cancer, and the other half were on anticoagulants. Mortality rates were 12% within the first month and 15% within the first three months.

Conclusions: Key factors influencing prognosis and hospitalization include bleeding amount, etiology, and comorbidities. Our study found high hospitalization (79%) and mortality rates (12% at 1 month, 15% at 3 months). Lung cancer caused 75% of massive hemoptysis cases, and anticoagulant use was the primary cause in 93% of cases. Both were associated with all ICU admissions, highlighting their significance as major etiological and prognostic factors.



Keywords: hemoptysis, non-infectious causes, lung cancer, massive hemoptysis, prognosis



Ref No: 4817

Pub No: S-147

Can Bedside Ultrasonography Evaluate the Hemodynamic Effects of Non-Invasive Mechanical Ventilation?

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Background and aim: Non-invasive positive pressure mechanical ventilation (NIMV) can alter hemodynamic status by influencing intrathoracic pressure. We aimed to evaluate the efficacy of bedside carotid Doppler and inferior vena cava (IVC) ultrasonography (USG) in assessing the hemodynamic effects of NIMV.

Methods: This single-center, prospective, non-randomized study included adult patients in the emergency department planned for NIMV. Data collected included vitals, demographics, comorbidities, carotid blood flow (CBF), carotid artery peak systolic velocity variation (ΔV_{peak}), corrected carotid flow time (ccFT), and IVC collapsibility index (IVCCI) measurements. Measurements were taken before and 30 minutes following the initiation of NIMV.

Results: Among the 62 patients included, significant changes were observed in pulse rate, respiratory rate, and oxygen saturation ($p < 0.01$), while systolic blood pressure (SBP) remained unchanged. Ultrasound measurements showed no significant differences. A strong correlation was observed between ΔCBF and ΔSBP (Spearman's ρ : 0.663) (Figure 1). In a subgroup of 16 patients with a 10% reduction in SBP, significant decreases in CBF and ccFT were observed ($p < 0.001$; $p = 0.035$, respectively). The ROC curve analysis demonstrated an AUROC value of 0.815 for ΔCBF , 0.717 for $\Delta ccFT$, 0.596 for ΔV_{peak} change, and 0.546 for $\Delta IVCCI$ in predicting a %10 SBP decrease (Figure 2).

Figure 1. Scatter plot of carotid blood flow and systolic blood pressure changes with the treatment.

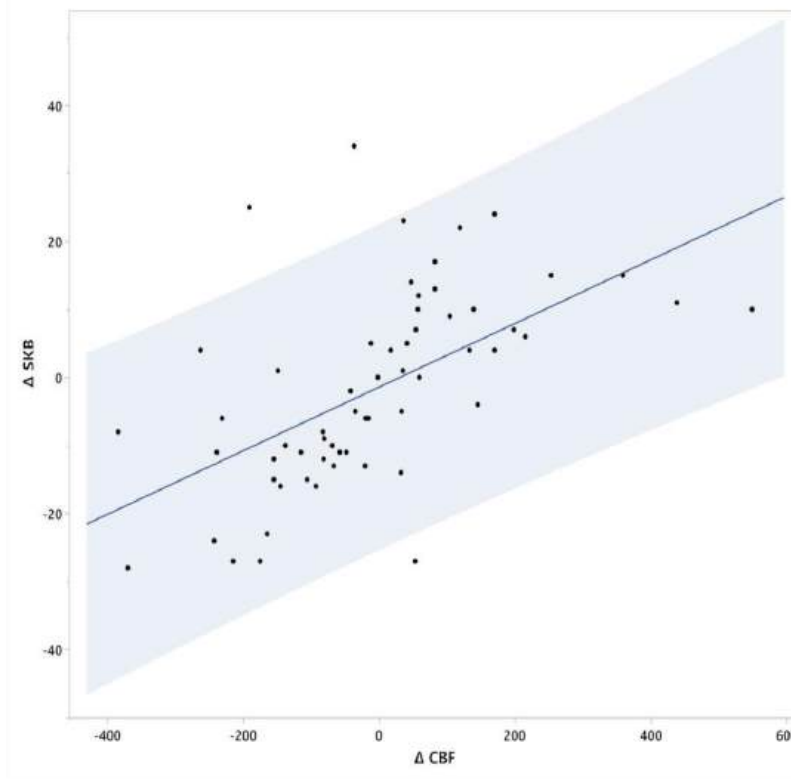
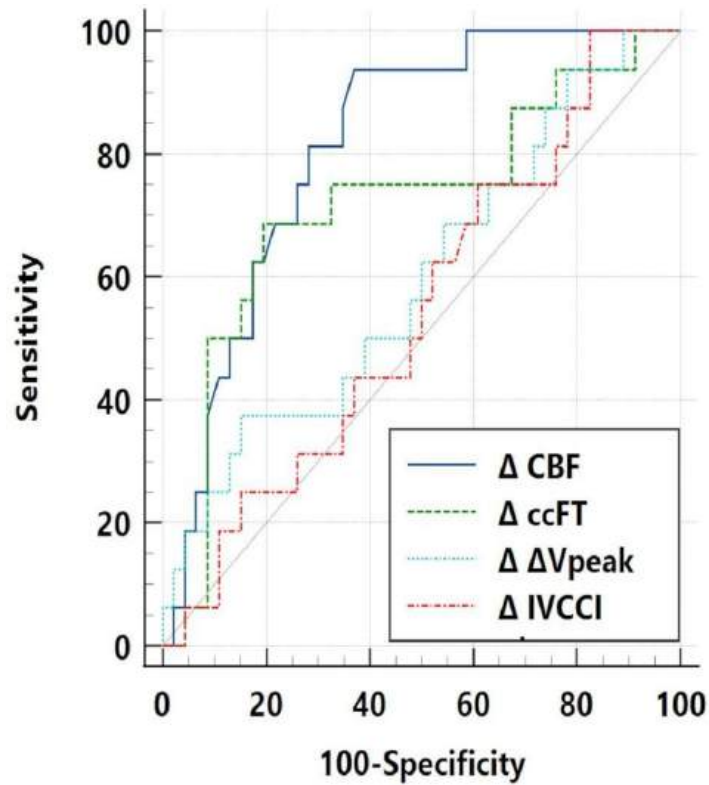


Figure 2. Comparison of ROC curves of changes in ultrasonographic measurements.



Conclusions: No significant differences were found in USG measurements. However, Δ SBP was correlated strongly with Δ CBF and moderately with Δ ccFT. In patients with a 10% decrease in SBP, NIMV impacted the CBF and ccFT, suggesting these parameters are useful for assessing changes in vital signs in patients with SBP alteration.

Keywords: carotid arteries, hemodynamics, noninvasive ventilation, ultrasonography



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A Retrospective Analysis of Patients Diagnosed with Acute Pancreatitis Following Presentation to the Emergency Department with Abdominal Pain

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Background and aim: Acute pancreatitis (AP) is a life-threatening disease caused by a variety of factors, and once it progresses to severe acute pancreatitis (SAP), the prognosis is poor. The purpose of this study was to evaluate the etiology, disease severity of patients diagnosed with AP and to investigate the prognostic value of the Imrie, HAPS, and Ranson's scores for predicting SAP.

Methods: A single-center, cross-sectional, and observational study was retrospectively conducted at the ED of hospital in Muğla, between January 1, 2019, and December 31, 2021. SAP was defined as the persistence of organ failure for more than 48 h. All eligible patients underwent a follow-up evaluation from admission to discharge. The predictive accuracy of the Imrie, HAPS, and Ranson's score was measured.

Results: A total of 418 patients diagnosed with AP (mean age: 61.42 ± 17.72 years; age range: 18-100 years; 55.3% female) were included in the study. The two most common causes of AP were biliary etiology (218 cases, 52.1%) and alcohol consumption (21 cases, 5.02%). Forty-nine patients (11.7%) were classified as SAP. Significant differences were found between the SAP and non-SAP groups in terms of white blood cell count, glucose, creatinine, sodium, potassium, chloride, albumin, and LDH levels. The AUCs for predicting SAP were 0,737 (95% CI 0,700–0,886) for the Imrie score, 0,647 (95% CI 0,814–0,992) for HAPS, and 0,628 (95% CI 0,744–0,928) for the Ranson score. Multivariable logistic regression indicated that an Imrie score ≥ 3 (OR=2,890; %95CI: 0,819–4,967, $p < 0.001$), glucose > 300 mg/dL (OR=1,740; %95 CI: 0,616–2,889; $p = 0,000$), and albumin < 30 g/L (OR=0,890; 95%CI: 0,819–0,967; $p = 0,011$) were independent risk factors for SAP.

Conclusions: The findings of our study indicate that the Imrie score is a valuable predictive tool for assessing the risk of SAP in patients with AP upon admission to the ED.

Keywords: Emergency department, Acute pancreatitis, Severe acute pancreatitis, Imrie score



Ref No: 4869
Pub No: S-215

DETECTION OF ACUTE INTRACRANIAL PATHOLOGIES IN PATIENTS ADMITTED TO EMERGENCY DEPARTMENT WITH HEADACHE

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Background and aim: Headache is one of the symptoms with a wide range of differential diagnosis, which constitutes one of the common causes of presentation to emergency departments. It may be due to many causes such as bleeding, thrombosis, infections, tumors, etc. Approximately 3.8% of patients presenting to emergency departments have a serious cause of headache.

Methods: NEU Faculty of Medicine, Department of Emergency Medicine We retrospectively analyzed the information of the patients who presented with headache complaint and had sufficient file information within a 6-month period. 1530 admissions were detected. 543 admissions underwent non-contrast computed tomography of the brain. 9 admissions had acute cranial pathologies that could be detected on brain CT, while no acute cranial pathologies were detected in the other 534 cases.

Results: The study included 1530 patients. 921 of the patients were female and 609 were male. 543 patients underwent non-contrast brain CT imaging. 280 were female and 263 were male. The mean age of patients presenting with headache was 45.8 years. The mean age of patients undergoing imaging was 48.1 years. The oldest patient presenting with headache was 94 years old and the youngest was 18 years old. The oldest patient was 93 years old and the youngest patient was 18 years old. The number of patients with acute pathology on brain CT imaging was 9. No acute cranial pathology was detected on brain CT imaging in 534 patients. The rate of patients who underwent brain CT imaging was 35.49% and the rate of acute pathology detection in patients who underwent brain CT imaging was 1.65%.

Conclusions: Various imaging and invasive diagnostic methods, especially brain CT, are used to minimize the possibility of missed diagnosis or misdiagnosis. Considering the data we have determined, acute pathology was not detected in the majority of the imaging method performed.

Keywords: HEADACHE, BRAİN CT, ACUTE INTRACRANIAL PATHOLOGIES



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Pub No: S-199

The Impact of Initial Antibiotic Dose Timing on 30-Day Mortality in Febrile Neutropenia Patients on Admission to the Emergency Department: Retrospective Clinical Research

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Background and aim: Febrile neutropenia (FN) is defined as an absolute neutrophil count (ANC) of less than $1 \times 10^9/L$ with high fever (1,2). Early antibiotic administration demonstrates to be associated with decreased mortality rates (3,4). The Multinational Association for Supportive Care in Cancer (MASCC) score can be used to risk stratify outpatients with febrile neutropenia (5). We aimed to determine the relationship between the time to administration of the first dose of antibiotics and 30-day mortality in patients with FN in emergency department (ED).

Methods: We conducted a retrospective, observational study including all FN patients presented to the ED between August 1, 2023, and August 1, 2024. Patient demographic information, laboratory results, time to antibiotic administration, the MASCC score and mortality were collected.

Results: A total of 49 patients admitted to the emergency department (ED) with febrile neutropenia (FN) were included in the study. Of these patients, 13 (21%) had died by the end of 30 days. The monocyte counts were significantly lower in the group with mortality compared to the survivors, with a statistically significant difference ($p=0.001$). However, no statistically significant association was observed between the timing of the first antibiotic dose and 30-day mortality. Statistical analysis reveals a substantial difference in discharge, service admission, and intensive care unit admission rates between Survivor and Non-survivor groups ($p=0,014$).

Table 1

	Survivor, N: 47	Non-Survivor, N: 13	p-value
Age, mean (IQR) [min-max], year	69 (18) [27-91]	75 (7) [55-87]	0,036*
Sex, N, (%)			0,043†
Male	28 (%59,6)	12 (%92,3)	
Female	19 (%40,4)	1 (%7,7)	
Comorbid Diseases, N, (%)	40 (%85,1)	9 (%69,2)	0,231†
Hypertension	25 (%53,2)	6 (%46,2)	0,653†
Diyabetes Mellitus	15 (%31,9)	3 (%23,1)	0,736†
Asthma and COPD	6 (%12,8)	1 (%7,7)	0,614†
Chronic Renal Failure	4 (%8,5)	-	0,568†
Coronary Artery Disease	18 (%38,3)	4 (%30,8)	0,715†
Type of Malignancy, N, (%)			0,334†
Solid	27 (%74,4)	10 (%76,9)	
Haematologic	20 (%42,6)	4 (%30,8)	



Duration of Antibiotic Administration to the Patient, , N, (%)			0,618 [‡]
0-1 Hour	3 (%6,4)	2 (%15,4)	
1-2 Hours	4 (%8,5)	2 (%15,4)	
2-3 Hours	9 (%19,1)	2 (%15,4)	
> 3 Hours	31 (%66)	7 (%53,8)	
Antibiotic Given to Patient, N, (%)			
Amoxicillin	5 (%10,6)	-	0,575 [‡]
Ceftriaxone	9 (%19,1)	2 (%15,4)	0,756 [‡]
Piperacillin-Tazobactam	20 (%42,6)	8 (%61,5)	0,225 [‡]
Cefepime	5 (%10,6)	-	0,575 [‡]
Vancomycin	3 (%6,4)	2 (%15,4)	0,295 [‡]
Meropenem	4 (%8,5)	3 (%23,1)	0,166 [‡]
Moxifloxacin	1 (%2,1)	1 (%7,7)	0,389 [‡]
Ciprofloxacin	4 (%8,5)	-	0,568 [‡]
Ertapenem	-	1 (%7,7)	0,217 [‡]
Teicoplanin	5 (%10,6)	3 (%23,1)	0,353 [‡]
Fluconazole	2 (%4,3)	-	0,611 [‡]
ED Final Status, N, (%)			0,014[‡]
Discharged from ED	8 (%17)	-	
Hospitalization	37 (%78,7)	9 (%69,2)	
ICU	2 (%4,3)	4 (%30,8)	

* The Mann-Whitney U test was used; † Chi-square or Fisher's exact test was used; IQR, interquartile range; COPD, chronic obstructive pulmonary disease.

Demographic and Clinical Characteristics of Patients Based on 30 Days Mortality

Table 2

	Survivor, N: 47	Non-Survivor, N: 13	p-value
Hemogram			
Hemoglobin, Mean $\pm$ SD (Min-max), 106/ μ l	9,05 $\pm$ 2,03 (4,6-13,2)	9,31 $\pm$ 1,95 (5,1-11,6)	0,686 *
Hematocrit, Mean $\pm$ SD (Min-max), %	27,09 $\pm$ 6,11 (13-40,2)	26,65 $\pm$ 5,81 (14,8-34,6)	0,771 *
Leukocyte Count, Median (IQR) [min-max], 10 ³ / μ l	0,95 (1,04) [0,05-4,36]	0,47 (0,58) [0,05-1,41]	0,056 †
Neutrophil Count, Median (IQR) [min-max], 10 ³ / μ l	0,22 (0,41) [0-0,96]	0,16 (0,47) [0-0,99]	0,560 †
Lymphocyte Count, Median (IQR) [min-max], 10 ³ / μ l	0,46 (0,65) [0-2,69]	0,31 (0,3) [0-0,89]	0,116 †
Monocyte Count, Median (IQR) [min-max], 10 ³ / μ l	0,08 (0,28) [0-0,78]	0,001 (0,03) [0-0,08]	0,001[†]
Biochemistry			
CRP, Median (IQR) [min-max]	113,09 (163,87) [12,11-478]	193 (247,95) [57,77-407,52]	0,112 †
Blood Glucose, Median (IQR) [min-max], mg/dL	128 (65) [86-316]	161 (91) [89-364]	0,222 †
Procalcitonin, Median (IQR) [min-max]	1,85 (8,09) [0-41,7]	2,67 (9,28) [0,01-66,86]	0,964 †



* Independent sample t-test was used; † Mann-Whitney U test was used; ‡ Chi-square test was used; CRP, C-Reactive Protein; MASCC, Multinational Association for Supportive Care in Cancer.

Laboratory Parameters and MASCC Score Associated with Survivor and Non-Survivor Patients

Table 3



	ICU, N: 6	Hospitalization, N: 46	Discharged from ED, N: 8	p-value
Age , mean (IQR) [min-max], year	69 (15) [55-77]	71 (19) [27-91]	72,5 (16) [37-83]	0,864*
Sex , N, (%)				0,556†
Male	4 (%66,7)	32 (%69,6)	4 (%50)	
Female	2 (%33,3)	14 (%30,4)	4 (%50)	
Comorbid Diseases , N, (%)	5 (%83,3)	38 (%82,6)	6 (%75)	0,871†
Hypertension	1 (%16,7)	27 (%58,7)	3 (%37,5)	0,124†
Diyabetes Mellitus	4 (%66,7)	13 (%28,3)	1 (%12,5)	0,098†
Asthma and COPD	1 (%16,7)	6 (%13)	-	0,636†
Cronic Renal Failure	1 (%16,7)	2 (%4,3)	1 (%12,5)	0,230†
Coronary Artery Disease	-	19 (%41,3)	3 (%37,5)	0,136†
Malignancy Type N, (%)				0,111†
Solid	6 (%100)	26 (%56,5)	5 (%62,5)	
Haematologic	-	21 (%45,7)	3 (%37,5)	
Duration of Antibiotic Administration to the Patient , , N, (%)				0,113†
0-1 hour	2 (%33,3)	3 (%6,5)	-	
1-2 hours	1 (%16,7)	5 (%10,9)	-	
2-3 hours	1 (%16,7)	10 (%21,7)	-	
> 3 hours	2 (%33,3)	28 (%60,9)	8 (%100)	
Antibiotic Given to Patient , N, (%)				
Amoxicillin	2 (%33,3)	7 (%15,2)	2 (%25)	0,487†
Ceftriaxone	2 (%33,3)	26 (%56,5)	-	0,005†
Piperacillin-Tazobactam	1 (%16,7)	4 (%8,7)	-	0,527†
Cefepime	1 (%16,7)	3 (%6,5)	1 (%12,5)	0,630†
Vancomycin	2 (%33,3)	5 (%10,9)	-	0,148†
Meropenem	1 (%16,7)	-	1 (%12,5)	0,051†
Moxifloxacin	-	1 (%2,2)	-	0,857†
Ciprofloxacin	1 (%16,7)	7 (%15,2)	-	0,489†
Ertapenem	-	2 (%4,3)	-	0,730†
Ornidazole	-	1 (%2,2)	1 (%12,5)	0,289†
Voriconazole	-	1 (%2,2)	-	0,857†
Hemogram				
Hemoglobin, Mean ± SD (Min-max), 106/μl	8,83 ± 2,54 (4,6-11,6)	9,07 ± 1,98 (4,8-12,8)	9,51 ± 1,94 (6,9-13,2)	0,579‡
Hematocrit, Mean ± SD (Min-max), %	26 ± 7,69 (13-34,6)	27,05 ± 5,87 (14-37,6)	29,05 ± 5,9 (20,8-40,2)	0,416‡
Leukocyte Count, Median (IQR) [min-max], 10 ³ /μl	0,36 (0,87) [0,05-1,41]	0,73 (0,91) [0,05-3,97]	1,55 (0,25) [0,75-4,36]	0,002*
Neutrophil Count, Median (IQR) [min-max], 10 ³ /μl	0,18 (0,42) [0-0,49]	0,2 (0,35) [0-0,99]	0,4 (0,5) [0,07-0,96]	0,369*



Lymphocyte Count, Median (IQR) [min-max], $10^3/\mu\text{l}$	0,28 (0,48) [0-0,89]	0,35 (0,46) [0-2,69]	0,9 (0,72) [0,43-2,55]	0,005*
Monocyte Count, Median (IQR) [min-max], $10^3/\mu\text{l}$	0 (0,03) [0,09]	0,06 (0,15) [0-0,62]	0,21 (0,39) [0,07-0,78]	0,002*
Biochemistry				
CRP, Median (IQR) [min-max]	218,47 (270,44) [57,77-424,78]	119,33 (178,92) [12,11-478]	30,56 (109,37) [12,17-221,55]	n.n.a*
Glucose, Median (IQR) [min-max], mg/dL	161 (89) [89-196]	129 (67) [86-364]	112,5 (70) [98-228]	0,533*
Procalcitonin, Median (IQR) [min-max]	8,4 [0,01-16,78]	2 (6,15) [0,01-66,86]	-	0,231*
MASCC Score, Mean $\pm$ SD (Min-maks)				
	11,83 $\pm$ 5,08 (4-16)	17,63 $\pm$ 4,68 (7-24)	22 $\pm$ 1,85 (18-24)	<0,001§

* The Mann-Whitney U test has been used; † Chi-square or Fisher's exact test has been used; ‡ Independent samples t-test has been used; § One-way ANOVA test has been used; CRP, C-Reactive Protein; MASCC, Multinational Association for Supportive Care in Cancer

Demographic and Clinical Characteristics of Patients' Based on ED Final Status

Conclusions: The timing of initial antibiotic administration did not correlate with 30-day mortality in patients with FN. Nevertheless the assessment of 30-day mortality in FN patients may be associated with the monocyte count determined at the time of their presentation to the ED.

Keywords: febrile neutropenia, anti-bacterial agents, chemotherapy complications, emergency medicine



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The role of perfusion indices in the clinical management of carbon monoxide poisoning

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Background and aim: Carbon monoxide (CO) poisoning impairs tissue perfusion through the formation of carboxyhemoglobin (COHb), disrupting oxygen transport. Traditional assessments using COHb levels alone often do not adequately predict clinical outcomes. Perfusion index (PI) and plethysmographic variability index (PVI) offer non-invasive, continuous monitoring of peripheral perfusion, potentially improving patient management. This study aims to evaluate these indices in guiding treatment and assessing efficacy in CO poisoning cases.

Methods: All patients aged 18 years and older, diagnosed with CO poisoning were consecutively enrolled in this prospective observational study between January 2019-May 2023. Patients with conditions affecting perfusion measurement and pregnant women were excluded. Perfusion indices and COHb levels were measured at diagnosis and after 60-min hyperbaric or normobaric oxygen therapy (HBOT or NBOT).

Results: The study included 144 patients; 38.9% received HBOT. PI-1 showed significant moderate negative correlation with COHb-1 levels in all patients and AUC value of PI-1 in predicting the necessity for HBOT was 0.935. Patients requiring HBOT had significantly lower PI-1 ($p<0.001$) and higher COHb-1, lactate-1, and PVI-1 values compared to those receiving NBOT ($p<0.001$, $p=0.002$, and $p=0.002$, respectively). After treatment, PI increased, and PVI, lactate, and COHb levels decreased significantly in both treatment groups ($p<0.001$ for all). In patients requiring HBOT, only the perfusion indices demonstrated a significant moderate correlation with Δ COHb in the post-treatment changes ($p<0.001$ for both, $r=-0.550$ for Δ PI and $r=0.519$ for Δ PVI). Δ PI was the only parameter that correlated with Δ COHb in both treatment groups ($p=0.003$, $r=-0.313$ for NBOT; $p<0.001$, $r=-0.550$ for HBOT).

Conclusions: Perfusion indices, especially PI, may be superior to lactate in reflecting changes in COHb levels and contribute to the clinician in determining severity of disease, selecting appropriate therapy and evaluating effectiveness of treatment in CO poisoning.

Keywords: carbon monoxide poisoning, perfusion index, pleth variability index, carboxyhemoglobin, lactate



Ref No: 5190
Pub No: S-160

Effectiveness and Safety of Intradermal Sterile Water Injection for Pain Management in Renal Colic: A pilot study

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Background and aim: We investigated the onset time and duration of the analgesic effect of intradermal sterile water injection (ISWI) in the management of pain among adult patients presenting to the emergency department (ED) with renal colic. Also, we evaluated the clinical characteristics of cases in which ISWI didn't achieve sufficient pain relief.

Methods: This prospective and single-center study included 46 consecutive patients admitted to the ED with renal colic who received ISWI between 03.2024 and 08.2024. We assessed pain using a 10 point visual analog scale (VAS; 0=no pain; 10=worst possible pain) before treatment and 15-30-60 min after treatment. Additionally, patient demographics, onset time and duration of the analgesic effect of ISWI, radiological findings, stone size, stone localization, and adverse events were evaluated. We compared the demographic and clinical characteristics of patients for whom ISWI treatment was successful with those for whom it wasn't.

Results: A total of 46 adults, comprising 34 (73.9%) males and 12 (26.1%) females, were included in this study, with a mean age of 39.41 ± 11.52 years. The initial VAS score for the pain of patients was 8.72 ± 1.17 . The VAS scores recorded at 15-30-60 min post-treatment were 3.59 ± 2.88 , 3.38 ± 2.93 , and 2.57 ± 2.87 , respectively. The mean time to pain cessation following ISWI was 8.66 ± 15.53 minutes, and patients didn't require additional analgesics for an average of 215.55 ± 15.53 minutes. Adequate pain control wasn't achieved in 18 patients (39.1%), necessitating rescue treatment. Among these 18 patients, 5 (27.8%) had stones larger than 6mm, 6 (33.3%) had stones smaller than 6mm, and 7 (38.9%) had stones measuring 3-6mm. Of the patients requiring rescue treatment, 14 (77.8%) had stones located in the ureter. Only one patient (2.2%) reported nausea.

Conclusions: Our findings indicated that ISWI is an effective and well-tolerated method for pain management. The majority of patients experienced significant pain relief within 8 minutes of treatment, and the analgesic effect lasted for several hours without the need for additional painkillers.

Keywords: renal colic, Intradermal Sterile Water Injection



Ref No: 5425
Pub No: S-214

EVALUATION OF THE EFFECT OF WELLNESS ACTIVITIES APPLIED BY EMERGENCY MEDICAL ASSISTANTS ON BURNOUT LEVEL AND JOB SATISFACTION

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Background and aim: Protecting the personal health of physicians is as important as protecting public health. In this study, the personal well-being of resident physicians was evaluated and its effects on burnout and job satisfaction were investigated.

Methods: It was planned as a single-center, cross-sectional, survey study. In the first stage, a form was used that provided personal well-being assessment and the questions were determined by the researchers. In the second stage, the Maslach Burnout Scale and in the third stage, the Job Satisfaction Scale were used.

Results: A total of 124 resident physicians participated in the study. 76.6% thought they were experiencing burnout, and 46.8% took action to combat it. Most residents rated their well-being as moderate. 79.8% stated that they were satisfied with the emergency department. The resignation rate of those who were satisfied with the emergency department was found to be significantly lower than those who were not. 83.9% of the residents stated that their income was insufficient, 93.5% had irregular diets, 62.9% did not exercise regularly, 79.8% had sleep problems, and 87.9% were exposed to physical/verbal violence. It was observed that those who thought their income was insufficient, had irregular diets, did not exercise regularly, had sleep problems, and were exposed to violence had low professional satisfaction and high emotional exhaustion.

Evaluation of Participants' Professional Satisfaction

Tablo 2. Katılımcıların Mesleki Memnuniyetlerinin Değerlendirilmesi	
Parametreler (n=124)	n(%)*
Acil Tıp Branşından Memnun Olma Durumu	
Evet	99 (79.8)
Hayır	25 (20.2)

Evaluation of Participants' Resignation Thoughts According to Their Satisfaction with the Emergency Medicine Branch

İstifa Etmeyi Düşünme Durumu		
Evet	Hayır	p



Acil Tıp Branşından Memnun Olma Durumu			
Evet	58 (58.6)	41 (41.4)	0.012 ¹
Hayır	22 (88.0)	3 (6.8)	
*:Satır yüzdesi			
¹ Ki kare test			

Evaluation of Participants' Financial Characteristics

Parametreler (n=124)	n(%)*
Gelirinin Yeterli Olduğunu Düşünme Durumu	
Evet	20 (16.1)
Hayır	104 (83.9)
Asistanlık Sürecinde Geleceğe Yönelik Yatırım Planı Yapma Durumu	
Evet	63 (50.8)
Hayır	61 (49.2)
*:Sütun yüzdesi	

Conclusions: Our study evaluated the well-being of resident doctors and examined the levels of affecting job satisfaction and burnout. Their professional satisfaction was at a moderate level, emotional exhaustion and depersonalization were high, and personal accomplishment deficiency was high. It was observed that those with sleep problems, those who did not exercise regularly, those who received psychological support, those who were subjected to violence, those who thought they were subjected to mobbing, and those who thought they were experiencing burnout had low professional satisfaction and high burnout levels.

Keywords: emergency medicine, burnout, wellness



Ref No: 5526

Pub No: S-149

Usability of artificial neural networks in mortality prediction of patients diagnosed with sepsis after emergency department admission

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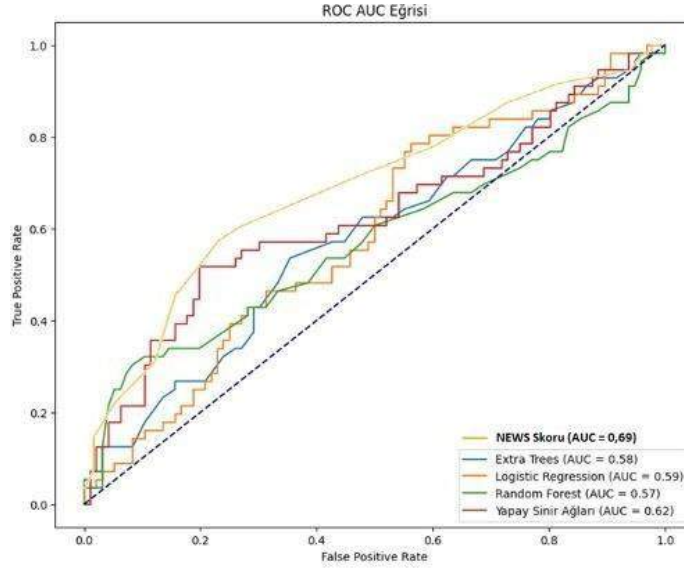
Hüseyin Cahit Halhallı / Kocaeli City Hospital

Background and aim: Objective: Sepsis, characterized by widespread inflammation and organ dysfunction caused by various microorganisms, refers to a serious condition resulting from a dysregulated host response to infection that rapidly develops, leading to organ failure. Predicting the mortality of sepsis is as important as diagnosing it. The aim of this study is to determine the usability of artificial neural networks in predicting the mortality of patients diagnosed with sepsis after presenting to the emergency department.

Methods: Material and Methods: The study was designed as a prospective, cross-sectional cohort study. Patients included retrospectively were used for the training phase of artificial neural networks learning. Subsequently, the model was tested with patients included prospectively. The performance of the artificial neural networks model was compared with machine learning models and the NEWS score.

Results: Results: The artificial neural networks model demonstrated superior performance compared to machine learning models. The accuracy of the artificial neural networks model was determined to be 0.632, followed by the Random Forest model at 0.618. Among the parameters used, the most influential on the outcome were respiratory rate, lactate level, and bicarbonate level. The NEWS score, a traditional mortality prediction tool, performed better than the artificial neural networks model.

ACU-ROC curves of models and NEWS Score ACU-ROC curve



Şekil 8: Modellerin AUC-ROC eğrileri ve NEWS Skoru AUC-ROC eğrisi

Conclusions: Conclusion: The artificial neural networks model developed in our study did not perform sufficiently well to be used for mortality prediction in sepsis patients. The accuracy of mortality prediction may improve with machine learning models involving a larger patient population, and these models may outperform traditional mortality prediction tools.

Keywords: Sepsis, machine learning, artificial neural network, mortality



Ref No: 5567
Pub No: S-221

EVALUATION OF THE EFFECT OF D-DIMER/TROPONIN RATIO AND ALVEOLO-ARTERIAL GRADIENT ON PROGNOSIS IN PATIENTS DIAGNOSIS OF PULMONARY EMBOLISM IN THE EMERGENCY DEPARTMENT

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Background and aim: We aimed to evaluate prognosis determinants in pulmonary embolism patients focusing on especially D-dimer/troponin ratio and alveolar to arterial oxygen gradient, moreover, to examine including age, gender, hemodynamic parameters, inflammatory parameters, scoring systems, electrographic findings and computered tomography findings.

Methods: Patients diagnosed with acute Pulmonary Embolism who applied to the Health Sciences University Şişli Hamidiye Etfal Training and Research Hospital Emergency Department between 01 January 2019 and 01 January 2023 were included.

Results: The total number of patients included in the study was 359, of which 54.3% were female. The mean age of the patients in our study was 66.9±16.3. The age, heart rate, respiratory rate, Neutrophil-to-Lymphocyte Ratio, Atrial Fibrillation Rate, lactate, D-dimer and mean Pulmonary Artery Pressure of the patients in the group with mortality was significantly higher than the group without mortality. Systolic blood pressure and diastolic blood pressure were notably lower in the mortality group than the without mortality group. In the multivariate regression analysis, age, diastolic blood pressure, respiratory rate, Neutrophil-to-Lymphocyte Ratio, Pulmonary Embolism Severity Index and Pulmonary Artery Pressure values' significant-independent effectiveness was observed.

Conclusions: Age, vital parameters, laboratory features and scoring systems such as Pulmonary Embolism Severity Index and Shock Index have important value while evaluating Pulmonary Embolism patients' risk profiles.

Keywords: Mortality, Pulmonary embolism, Shock Index, D-dimer



Ref No: 5751
Pub No: S-189

Cross-sectional analysis of patients with successful resuscitation in cardiopulmonary arrest (ROSC): a retrospective, observational descriptive study

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Background and aim: This study aimed to identify factors that influence in-hospital clinical outcomes (mortality or discharge) in cases of spontaneous circulatory cardiopulmonary arrest (ROSC) in the emergency department.

Methods: Cardiopulmonary arrest patients aged ≥ 18 years who were admitted to the ED of the hospital between 01.06.2022 and 01.06.2024 and underwent cardiopulmonary resuscitation with ROSC were included in the study. Physical patient record files kept in the emergency department and electronic archives were retrospectively analyzed. Age, sex, possible causes of arrest, first arrest rhythm, and in-hospital mortality rates were retrospectively analyzed. Frequency, percentage, Chi-square, or Fisher's exact test was used for categorical variables in the statistical analysis.

Results: A total of 178 patients with ROSC were identified. Fifty-five patients were excluded from the study. Consequently, data from 123 patients were analyzed, showing VF/nVT as the initial arrest rhythm in 28.5% (n=35), asystole in 44.7% (n=55), and NEA in 26.8% (n=33). Cardiopulmonary arrest was caused by cardiac arrest in 27.6% (n=34), non-cardiac arrest in 69.1% (n=85), and trauma in 3.3% (n=4). CPR lasted less than 30 minutes in 36.6% (n=44) and over 30 minutes in 63.4% (n=78) of patients, with ROSC achieved. In-hospital mortality rate after ROSC was 89.4% (n=110), and the discharge rate with or without neurological sequelae was 10.6% (n=13). No significant difference was found between the cause of cardiac arrest and the first arrest rhythm or CPR duration (<30 min and >30 min) ($p=0.225$ and $p=0.916$, respectively). There was no significant sex difference in first-arrest rhythms ($p=0.312$) or correlation between in-hospital mortality and CPR duration ($p=0.13$). Patients with VF/nVT as the initial arrest rhythm had significantly higher discharge rates than those with asystole or PEA ($p=0.031$).

Table 1. Demographic and clinical outcomes of the patients

Factors	Total n = 123
Age, years, mean $\pm$ SD	72.46 $\pm$ 10.81
Sex, n (%)	
Male	72 (58.5)
Female	51 (41.5)
First arrest rhythm, n (%)	
VF/Nvt	35 (28.5)
Asystole	55 (44.7)
PEA	33 (26.8)
Causes of arrest	
Cardiac	34 (27.6)
Non-cardiac	85 (69.1)



Traumatic	4 (3.3)
CPR duration, time	
<30 min	44 (36.6)
>30 min	78 (63.4)
Mortality	110 (89.4)
Discharge	13 (10.6)

Table 2. Effects of cardiac arrest rhythms and CPR durations on in-hospital outcomes

Factors	CPR time			
Mortality	< 30 min	> 30 min		P-value
Yes, n (expected)	43 (40.2)	67 (69.8)		0.13*
	First arrest rhythm			
Discharge	VF/Nvt	Asystole	PEA	0.031*
Yes , n (expected)	8 (3.7)	3 (5.8)	2 (3.5)	

Conclusions: Although asystole was the most common initial arrest rhythm in patients with ROSC, the best clinical outcome (hospital discharge) was ventricular fibrillation/nonpulseless ventricular tachycardia rhythms.

Keywords: cardiopulmonary resuscitation, ROSC, first rhythm, mortality, discharge



Ref No: 5802

Pub No: S-150

Comparison of the effectiveness of clinical scoring systems in predicting 30-day mortality in patients presenting to the emergency department with acute heart failure: A prospective observational study

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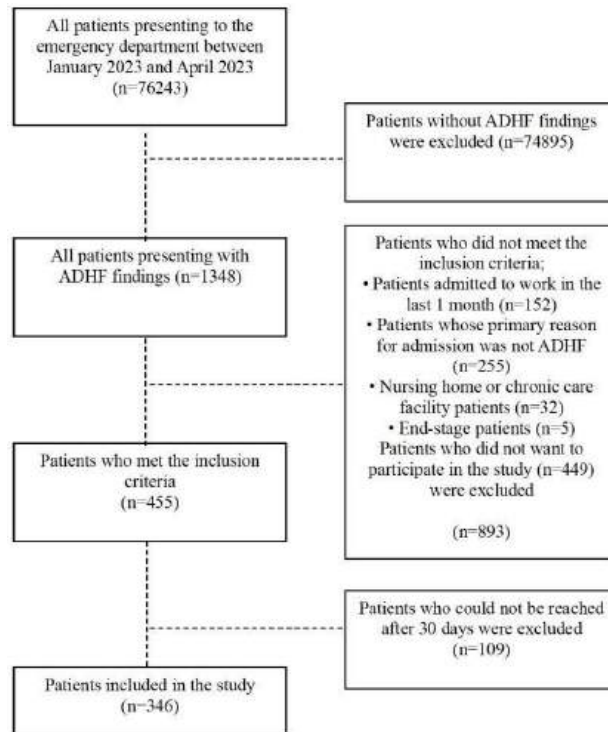
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Background and aim: Introduction Patients discharged from the emergency department (ED) with acute decompensated heart failure (ADHF) have high mortality rates. Clinical judgment alone is not successful in making discharge decisions. Therefore, scoring systems like Emergency Heart Failure Mortality Risk Grade (EHMRG) and Ottawa Heart Failure Risk Score (OHFRS) have been developed. Our study aims to evaluate the superiority of EHMRG and OHFRS scores in predicting 30-day mortality.

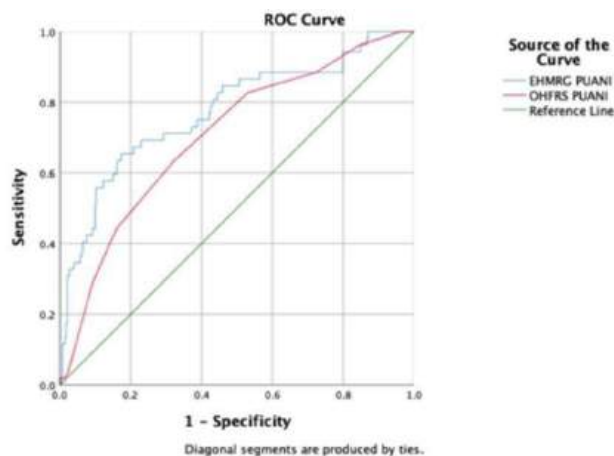
Methods: Methods This study is a single-center, observational, prospective study. EHMRG and OHFRS scores were calculated for patients who presented to the ED for ADHF. Patients included in the study were compared in terms of outcomes within 30 days of their initial presentation, including death, re-admission to the emergency department, or admission to the medical ward or intensive care unit (ICU). The performance of both scores to predict mortality was evaluated with ROC analysis.

Results: Results A total of 1348 patients who presented with ADHF were evaluated, and 346 patients were included in the study. Both EHMRG and OHFRS scores were found to be statistically significant in predicting 30-day Mortality. No superiority was observed between them. There was no significant difference in terms of hospital admissions. In predicting medical ward admissions, the EHMRG score was superior, while the OHFRS score was superior in predicting ICU admissions. Neither scoring system was statistically significant in predicting re-admissions to the ED within 30 days.

Flowchart of study Design



ROC analysis to evaluate the success of EHMGR and OHFRS scores in predicting 30-day mortality





Conclusions: ConclusionThe results of this study demonstrate that both OHFRS and EHMRG scores can be confidently used to predict mortality, predict ICU admissions, and ensure safe discharge for patients presenting to the ED with ADHF. However, both scores were inadequate in predicting ED re-admissions.

Keywords: Acute decompensated heart failure, emergency department, EHMRG score, OHFRS score



Ref No: 5804
Pub No: S-183

Can pleth variability index (PVI) values measured in patients presenting to the emergency department with COPD exacerbation predict clinical severity?

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Background and aim: This study aims to investigate the role of Pleth Variability Index (PVI) in predicting the severity, clinical course, and prognosis of Chronic Obstructive Pulmonary Disease (COPD) exacerbations.

Methods: This prospective study was conducted between May 2023 and May 2024 with patients over 18 years old who were known to have COPD and presented to the emergency department with symptoms of COPD exacerbation. The PVI values measured at the time of admission and after treatment were compared in terms of the severity of COPD exacerbations, the need for hospitalization, and the development of mortality, according to current guidelines.

Results: 131 patients were included in the study. The median triage PVI value of the patients was 42% (14-99). The median triage PVI value was 50% (31-99) for patients presenting with severe exacerbation, 36% (14-69) for those with moderate exacerbation, and 24% (14-45) for those with mild exacerbation, with a significant difference between the groups ($p < 0.001$). The median post-treatment PVI value was 27% (8-68), which was significantly lower than the triage PVI value ($p < 0.001$). A PVI value above 40% had a sensitivity of 86.44% and specificity of 75% for predicting severe exacerbation (AUC: 0.828; CI: 0.753-0.889; $p < 0.001$). The median PVI value was 55% (30-99) for patients who died, compared to 38.5% (14-77) for those who survived ($p < 0.001$). A PVI value above 40% had a sensitivity of 94.12% and specificity of 53.51% for predicting mortality (AUC: 0.774; CI: 0.692-0.842; $p < 0.001$).

Conclusions: The PVI value is a useful parameter for determining the severity of COPD exacerbations and for predicting the prognosis of the disease.

Keywords: COPD exacerbation, PVI, emergency department, prognosis



Ref No: 5953
Pub No: S-154

How can we increase treatment compliance in patients whose urine cultures are taken in the emergency department?

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Background and aim: Urinary tract infections (UTIs) are common bacterial infections that can lead to serious complications across all age groups. This study aims to evaluate the follow-up processes of patients who presented to the emergency department (ED) with UTI and were planned for outpatient follow-up.

Methods: In this prospective, randomized comparative cohort study, patients presenting to the ED with UTI symptoms and planned for outpatient follow-up were randomly assigned to return to the ED or to see an infectious diseases specialist for a follow-up three days later. The patients' symptoms at presentation, laboratory results, and demographic characteristics were recorded by ED physicians on a data collection file. The compliance with the referral, symptom resolution within one week post-presentation, and hospital re-admissions with the same symptoms within one month were tracked by the study team.

Results: A total of 318 patients were analyzed after excluding those lost to follow-up. The mean age of the patients was 46.4±19.9 years, with 83.3% being female. Hypertension (19.8%) and diabetes mellitus (16.0%) were the most common comorbidities. At presentation, 8.5% of the patients had fever. Laboratory findings showed leukocyte esterase positivity in 78.9% and nitrite positivity in 23.6% of the patients. The rate of patients attending follow-up appointments on the third day was 9.7%, with male patients showing higher rates of unresolved symptoms and re-admissions (p=0.016 and p=0.023, respectively).

Conclusions: In this study, only 10% of patients complied with the referral to the follow-up unit. Treatment compliance were not significantly different whether patients were referred to the ED or an outpatient clinic. Very few patients who had urine cultures taken in the ED and were followed up on an outpatient basis had follow-up based on culture results. These findings indicate that a more structured approach is necessary for the effective follow-up of UTI patients.

Keywords: urinary tract infection, urine culture, emergency department, infectious diseases



Ref No: 6131
Pub No: S-163

Evaluation of survey and outcome of patients with severe acidosis in the emergency department: A retrospective cohort study

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Background and aim: We aimed to evaluate the outcome of patients with severe acidosis admitted to the emergency department (ED) and to analyze the relationship between in hospital mortality and clinical factors.

Methods: Patients with severe acidosis ($\text{pH} < 7.1$) presenting to the ED were included in the study. They were classified as neurologic, cardiac, metabolic, septic, bleeding/trauma, respiratory or unknown/other according to the pre-diagnosis. Patients were divided into cardiac arrest and non-arrest groups and analyzed according to these groups and outcomes.

Results: The study included 540 patients with severe acidosis. The median age of the patients was 69 years and 71.5% were admitted due to cardiac arrest. The 30-day mortality rate was 74.8% in all patients. When 30-day mortality rates were compared between surviving and deceased patients, it was observed that deceased patients were older and had hypertension (HT) and coronary artery disease (CAD) more frequently, whereas diabetes (DM) was more frequent in the surviving group. Deceased patients were more acidotic and had higher pCO_2 , lactate, INR, creatin and potassium values. (table 1) The 30-day mortality rate was 21.4% in non-arrested patients. Similarly, it was observed that the majority of the patients who died were male and older age, HT and CAD were more common. When the diagnoses of the patients were analyzed, the mortality rate was higher in patients with sepsis, metabolic and isolated respiratory arrest, while the mortality rate was lower in patients with neurologic causes, DCA and seizures

Conclusions: In this retrospective cohort study, most of the etiology of severe acidosis detected in the ED is cardiac arrest and mortality rates are high. Although the probability of survey of patients with severe acidosis in the ED is low, early recognition and management of factors affecting mortality, especially in patients with acidosis due to reversible causes, may contribute to the prognosis of patients.

Keywords: severe acidosis, emergency department, mortality



Ref No: 6294
Pub No: S-131

ANALYSIS OF ADULT TRAUMA PATIENTS TRANSPORTED FROM THE FIELD BY HELICOPTER AMBULANCE

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Background and aim: Trauma patients who meet "high risk" criteria in field triage should be directed to the highest-level trauma center in the area, with air medical services also available. Under-triage in the field has a negative impact on patient outcomes, while over-triage significantly impacts system resources and patient and provider safety. New protocols are needed for helicopter ambulance assignments in field triage.

Methods: This study was conducted retrospectively on adult trauma patients transported from the scene by helicopter ambulance between 01.10.2021-01.06.2024. The data of the patients included in the study were obtained from the Ministry of Health Emergency Health Automation System. The transportation time of helicopter ambulances to the scene and the time to transport the patient to the hospital were calculated. It was investigated how helicopter ambulances could be used more efficiently for cost-effective and patient benefit purposes.

Results: 195 patients were included in the study. The average age of the patients was 51.19 ± 18.72 . 68.6% of the patients were male. 80.4%(n=156) of the injuries were blunt trauma. The most common reason for admission was falling(43.8%). The most frequently injured area was the extremities in 73.7%(n=143). 8.8%(n=17) had multitrauma. The average time for helicopter ambulances to arrive at the scene was calculated as 27.42 ± 9.23 minutes, the average time for transporting the patient to the hospital was 20.30 ± 7.58 minutes, and the total time from the call to the end of the mission was calculated as 64.63 ± 15.42 minutes. 47(24.2%) of the patients needed urgent surgery and 39 of them benefited from the surgery.

Conclusions: Helicopter ambulance minimizes time loss in transporting trauma patients, but its cost is high. In the decision to transfer by helicopter ambulance, health officials' evaluation together with expert teams via teleconference will reduce field triage, reduce costs and determine the right transportation method for the right patient.

Keywords: field triage, helicopter ambulance, transport, trauma



Ref No: 6315
Pub No: S-133

Evaluation of the effects of concomitant alcohol positivity on the characteristics and severity of injury in geriatric trauma patients

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Background and aim: This study aimed to evaluate whether concomitant alcohol positivity is an effective factor in trauma characteristics and trauma severity in geriatric trauma patients in the emergency department (ED) and evaluate the relationship with poor composite outcomes in alcoholic patients.

Methods: The study has a retrospective design. Patients aged 60 and over who presented to the ED due to trauma and whose blood ethanol level was studied were included in the study. In the study, ethanol levels above 0.5 mg/dl were considered ethanol-positive. Patients were assigned to the poor composite outcome group according to the ICU stay, need for emergency blood transfusion/operation, or in-hospital mortality.

Results: 336 patients were included in the study. There were 101 patients with an ethanol level of >0.5 mg/dl. According to the comparison of ethanol-positive and negative patients, most of the alcoholic patients were male and single. Ethanol-positive patients had more head trauma, and their ISS scores and liver function tests were higher ($p < 0.05$ for all values). 11.3% ($n=11.3$) of all patients and 15.8% ($n=16$) of ethanol-positive patients developed poor composite outcomes. When ethanol-positive patients were compared according to the poor composite outcome, it was observed that patients had more diabetes, more trauma to the head, abdomen, and extremities, higher creatine levels, and lower albumin and blood ethanol levels ($p < 0.05$ for all values).

table 1

Gender, n (%)	33 (9.8%)
Female	
Age, median (IQR 25-75)	64 (62-68)
Marital status, n (%)	256 (76.2%)
Married	80 (23.8%)
Single	
Day, n (%)	234 (69.6%)
	102 (30.4%)

Mid-week	
Weekend	
Comorbidity, n (%)	189 (56.3%)
Hypertension	48 (14.3%)
Cardiac diseases	39 (11.6%)
Diabetes mellitus	35 (10.4%)
COPD	24 (7.1%)
Other	
Mechanism of injury, n (%)	127 (37.8%)
Assault	96 (28.6%)
Motor vehicle collisions	91 (27.1%)
Fall	22 (6.5%)
Pedestrian	0 (0%)
Penetrating	
GCS, median (IQR 25-75)	15 (14-15)
Ethanol level, median (IQR 25-75)	237 (156-293) 227 ±93.4
ISS, median (IQR 25-75)	2 (1-4)
ISS group, n (%)	301 (89.6%)
Mild	38 (11.3%)
Moderate-severe	
Injury area, n (%)	221 (65.8%)
Superficial wound injury	50 (14.9%)
Extremity/vertebra	27 (8%)
Thorax	26 (7.7%)
Head/face	9 (2.7%)



Abdomen	8 (2.4%)
Pelvis/hip	
Patient outcome, n (%)	293 (87.2%)
Discharge	20 (6%)
Hospitalization	23 (6.9%)
Intensive care unit	
Hospital length of stay, median (IQR 25-75)	4 (3-6)
In hospital mortality, n (%)	6 (1.8%)

Demographic data of all patients (n=336)

Conclusions: In this study, in which we evaluated whether concomitant alcohol positivity was effective on trauma characteristics and severity in geriatric trauma patients in the ED, we showed that the majority of alcoholic geriatric trauma patients were male and single, that they had more frequent head trauma compared to the non-alcoholic group, that the presence of alcohol was associated with increased severity of injuries regardless of the ethanol level, but was not effective in terms of poor composite outcomes.

Keywords: Ethanol, alcohol, geriatric, trauma, poor outcome



Ref No: 6389

Pub No: S-203

Confirmation Of Chest Compression Location In Cardiopulmonary Resuscitation With Transoesophageal Echocardiography

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Background and aim: Echocardiography is effective in identifying arrest etiology, guiding treatment, and confirming ROSC during CPR. While TTE, as recommended by the 2015 ILCOR guidelines, requires pauses in compressions and has diagnostic limitations, TEE allows continuous cardiac monitoring without interruptions and is the gold standard for distinguishing PEA and pseudo-PEA. However, studies suggest that standard chest compressions often miss the left ventricle, indicating a need for further research to optimize CPR techniques. Our aim in this study is to evaluate whether the anatomical positioning and variations of the heart affect the outcome of CPR.

Methods: The study was a prospective observational design involving patients over 18 who experienced cardiac arrest during emergency department follow-up. CPR was initiated according to guidelines, and TEE video recordings were obtained within the first 5 minutes. The maximum compression area of the heart was identified and recorded via TEE during standard chest compressions. Patients were divided into three groups based on the compression area: left ventricle, right ventricle, and left ventricular outflow tract (LVOT), and compared in terms of ROSC, in-hospital mortality, and neurological outcomes.

Results: Among the 32 patients included in the study, 14 were female. The mean age was calculated as 71.68 ± 10.46 years. Left ventricle compression was observed in 12 patients (37.5%), right ventricle in 14 patients (43.8%), and LVOT in 6 patients (18.8%). All introductory statistics are presented in Table 1. The comparison of the three compression areas in terms of ROSC, emergency department, and in-hospital outcomes is presented in Table 2. No statistically significant differences were observed between the compression areas across the outcome groups.

Table 1

	Statistics
Age	71,68±10,46
Gender	
Woman	14 (%43,8)
Man	18 (%56,3)
The Place Under The Most Pressure	
Left Ventricle	12 (%37,5)
Right Ventricle	14 (%43,8)
LVOT or Aorta	6 (%18,8)
ROSC	
No	12 (%37,5)

Yes	20 (%62,5)
In Emergency Department Outcome	
Hospitalization	7 (%21,9)
Exitus	25 (78,1)
In Hospital Outcome	
Discharge	2 (%6,2)
Exitus	30 (%93,8)

Table 2

		The Place Under The Most Pressure				X²	p
		Left Vent	Right Vent	Lvot Or Aorta	Total		
Rosc	No	n	5	6	1	12	1371 0,504
		%	41,667%	42,857%	16,667%	37,50%	
	Yes	n	7	8	5	20	
		%	58,333%	57,143%	83,333%	62,500%	
Total		n	12	14	6	32	
		%	100%	100%	100%	100%	
In Emergency Department Outcome	Hospitalization	n	3	4	0	7	2116 0,347
		%	25 %	28,571%	0 %	21,875%	
	Ex	n	9	10	6	25	
		%	75%	71,429%	100%	78,125%	
Total		n	12	14	6	32	
		%	100%	100%	100%	100%	
In Hospital Outcome	Discharge	n	1	1	0	2	0,508 0,776
		%	8,333%	7,143%	0 %	6,250%	
	Ex	n	11	13	6	30	
		%	91,667%	92,857%	100%	93,750%	
Total		n	12	14	6	32	
		%	100%	100%	100%	100%	

Conclusions: This study found no statistically significant differences in CPR outcomes based on the area of maximum chest compression (left ventricle, right ventricle, or LVOT). While TEE helps identify anatomical variations, further research is needed to assess whether targeting specific cardiac areas could improve CPR effectiveness.

Keywords: TEE, CPR, Emergency Department

References



Ref No: 6518
Pub No: S-156

Predicting Clinical Severity and Re-admissions in Patients with COPD Exacerbations Using Near Infrared Spectroscopy (NIRS) in the Emergency Department

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Background and aim: The Emergency Department (ED) must evaluate the clinical severity and determine the need for hospitalization in cases of chronic obstructive pulmonary disease (COPD). We use near-infrared spectroscopy (NIRS), a noninvasive tool, to measure changes in the oxygenation of the chromophore hemoglobin. The objective of this investigation was to assess the NIRS values of the patients and their correlation with clinical outcomes and re-admission.

Methods: The study included patients with COPD exacerbations in the ED and recorded their vital signs and blood gases. Throughout the ED follow-up period, we continuously measured the ST02 levels of the study's patients. We take measurements for the first hour, then again for the second hour. Additionally, we classified the patients based on the current GOLD (Global Initiative for Chronic Obstructive Lung Disease) guideline and compared the data between the groups. We collected the patients' 30-day and 90-day readmission data over the phone.

Results: The study included 114 patients. The ED re-admitted forty-five (39.5%) of the patients within 30 days and 54 (47.4%) within 90 days. Comparison of the NIRS values between groups revealed that the moderate clinical severity group had a significant change (hand and frontal data, respectively, $p = 0.003$, $p = 0.007$).

Conclusions: NIRS may be helpful in predicting the clinical outcome of patients presenting to the ED with COPD exacerbations. In addition, it can provide insight into determining re-admissions.

Keywords: COPD, dyspnea, near Infrared Spectroscopy, emergency department



Ref No: 6559
Pub No: S-213

"Evaluation of the effects of laboratory values, oxidation parameters, scoring systems and ventricular diameter measurements on prognosis in patients diagnosed with acute pulmonary embolism in the emergency department"

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Background and aim: The aim of the study is to investigate the role of oxidant and antioxidant levels in the diagnosis of acute pulmonary embolism (APE).

Methods: Participants diagnosed with APE were included in Group 1 and healthy volunteers were included in Group 2. In addition, Group 1 was divided into two groups according to the 30-day mortality status.

Results: Sixty-five participants diagnosed with acute pulmonary embolism were included in Group 1. Of the Group 1 participants, 43 (66%) were female and 22 (34%) were male. Fifty-two healthy volunteers were included in Group 2. Of the Group 2 participants, 26 (50%) were female and 26 (50%) were male. When Group 1 and Group 2 were compared, there was a statistically significant difference between TAC, TOC, OSI and IMA levels. TAC levels in Group 1 were lower than in Group 2, and TOC, OSI and IMA levels were higher. When ROC analysis was performed for TAC, TOC, OSI and IMA, the highest area under the curve (AUC) was found in OSI, TOC and IMA, respectively. When the cut-off value for OSI was determined to be 3.0, the sensitivity was 62%, the specificity was 92%, the positive predictive value was 94% and the negative predictive value was 92% (Tables 1A, 1B). Fifteen (23%) of the Group 1 participants died within 30 days of admission to the emergency department (Group 1A), and 50 (77%) survived after 30 days (Group 1B). When the patients in Group 1A and Group 1B were compared, there was no statistically significant difference in terms of age, gender, body temperature, SaO₂. Compared to Group 1B, SBP and DBP were lower and heart rate was higher in Group 1A (Table 2).

Table 1. A. Comparison of oxidant and antioxidant levels of participants included in Group 1 and Group 2.

Oxidant/antioxidant	Patients/healthy volunteers	Median (min-max)	P
TAC*	Group 1	1.6 (1.1-2.4)	0.002
	Group 2	1.8 (1.2-2.3)	
TOC†	Group 1	6.1 (1.7-22.6)	0.001
	Group 2	3.5 (2.1-7.3)	
OSI‡	Group 1	3.5 (0.9-13.7)	0.001
	Group 2	1.8 (1.2-4.8)	
IMA§	Group 1	0.6 (0.6-0.9)	0.001
		0.5 (0.5-0.6)	



	Group 2		
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Table 1B. ROC analysis of TAC, TOC, OSI and IMA levels in participants included in Group 1

Test Result Variable(s)	AUC	P	Lower Bound	Upper Bound
TAC	0.336	0.002	0.236	0.436
TOC	0.773	0.001	0.688	0.859
OSI	0.816	0.001	0.740	0.893
IMA	0.738	0.001	0.638	0.838

Table 2. Comparison of clinical findings of participants included in Group 1A and Group 1B

Group		Age	SBP	DBP	Pulse	Body temperature	SaO2
Group 1B	Median	72	117	78	95	36.2	93
	Min	18	77	47	56	36.0	74
	Max	93	193	129	181	37.6	100
Group 1A	Median	65	104	70	124	36.0	90
	Min	23	76	53	70	36.0	40
	Max	98	131	80	148	37.0	99

Conclusions: Oxidant and antioxidant balance is impaired in APE. Therefore, oxidants and antioxidants can be used in the diagnosis and exclusion of patients with suspected APE

Keywords: Antioxidant, ischemia, oxidant, oxidative stress, pulmonary embolism



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Pub No: S-175

Evaluation of pediatric intoxication

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Background and aim: In our country, as in many parts of the world, pediatric poisonings are a significant public health issue, ranking just after trauma. In poisonings occurring during childhood, those in children under the age of 6 are often primarily due to unwanted accidents. In contrast, in older age groups, poisonings are more commonly intentional and typically associated with suicidal intent. In this study, cases presenting to the emergency department of Erzurum City Hospital due to medication-related poisonings were evaluated.

Methods: A total of 81 pediatric patients who presented to the emergency department with poisoning between January 1, 2017, and December 31, 2019, were included in the study. The patients' age, gender, whether the ingestion was accidental or intentional, vital signs, drug active ingredients, need for intensive care, psychiatric follow-up and the use of antidotes, activated charcoal, and gastric lavage were all evaluated

Results: Of these, 53.1% (n=43) were male. The average age of the children included in the study was 5.20 years. At the time of hospital admission, 87.7% (n=71) were observed to be fully conscious. It was observed that 87.7% (n=71) of these individuals ingested the medications accidentally. Among the 16 patients who required intensive care, 2 developed esophagitis, and 1 patient was intubated. Active charcoal treatment was administered to 45.7% (n=37) of the patients at the time of hospital admission. Additionally, gastric lavage was performed on 34.6% (n=28) of these cases.

Conclusions: Poisonings often do not exhibit specific characteristics. Therefore, a thorough patient history should be taken, and initial treatment should focus on supporting vital functions. Educating families on these matters and providing serious warnings to children about potential dangers are believed to reduce poisonings, as well as the associated complications and mortality.

Keywords: Pediatrics, poisoning, antidote, suicide, medication



Ref No: 6667
Pub No: S-211

The Prognostic Value of Scoring Systems and Ultrasonographic Assessment in Critically Ill Patients in the Emergency Department

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Background and aim: This study evaluates the prognostic value of emergency scoring systems (REMS, MEWS, HOTEL) and the utility of bedside ultrasonography in critically ill patients, focusing on Inferior Vena Cava (IVC) collapsibility and Ejection Fraction (EF).

Methods: A prospective cross-sectional study was conducted at S.B.Ü Istanbul Kanuni Sultan Süleyman Training and Research Hospital. Patients aged 18 and older who were admitted to the emergency department and subsequently monitored in the critical care unit were included. REMS, MEWS, and HOTEL scores were calculated for each patient. IVC collapsibility and EF were assessed using bedside ultrasonography by emergency physicians. Continuous variables were analyzed using t-tests, Mann-Whitney U, ANOVA, and Kruskal-Wallis tests.

Results: Between October 1, 2022, and October 1, 2023, 59 critically ill patients (median age 71.36 years) were enrolled, with 49.2% female. Hypertension (52.5%) and diabetes mellitus (35.6%) were the most common conditions. Mortality occurred in 45.8% of patients. A significant correlation was observed between mortality and systolic blood pressure ($p=0.021$) and respiratory rate ($p=0.021$). Median systolic blood pressure was 110 mmHg in the mortality group and 142 mmHg in survivors. GCS ($p=0.002$) and AVPU ($p=0.003$) were significantly higher in survivors, while MEWS ($p=0.004$) and HOTEL ($p<0.001$) scores were higher in the mortality group. REMS score did not show a significant correlation with mortality ($p=0.105$). No significant association was found between IVC collapsibility ($p=0.084$) or EF ($p=0.307$) and mortality.

Relationship Between Age and Vital Signs and Mortality

	Survivor		Mortality		P Value
	Median	IQR	Median	IQR	
Age (year)	73.5	18.75	72	26	0.867
Systolic BP (mmHg)	142	40	110	70	0.021
Diastolic BP (mmHg)	80	15.75	70	30	0.171
Heart rate/ bpm	88.5	30	102	49	0.076
Body temperature °C	36.5	0.55	36.6	0.3	0.170
Respiratory rate / bpm	20	4.75	22	6	0.021
SPO ₂ %	93.5	12.75	90	14	0.160
MAP (mmHg)	100	30.15	90	35	0.201

(*BP: Blood Pressure, SPO₂: Peripheral Capillary Oxygen Saturation, MAP: Mean Arterial Pressure) (MannWhitney U test)



Relationship Between Calculated Scorings and Mortality

	Survivor		Mortality		P Value
	Median	IQR	Median	IQR	
GCS	15		13	3	0.002
AVPU	4		3	2	0.003
REMS	8	3	8	3	0.105
MEWS	2	2	4	4	0.004
HOTEL	1	1	2	1	<0.001

(*GCS: Glaskow Coma Scale, AVPU: Alert, Verbal, Painful, Unresponsive, REMS: Rapidly Emergency Score, MEWS: Modified Early Warning Score, HOTEL: Hypotension, Oxygen Saturation, Temperature (Low), Electrocardiogram Changes, Independent Standing (Inability to)) (MannWhitney U test)

Relationship between Targeted Bedside USG Data and Mortality

	Survivor		Mortality		P Value
	Median	IQR	Median	IQR	
IVC Collapsibility Index (mm)	32.5	40	45	48	0.084
EF (%)	55	19.5	52	13	0.307

(*IVC: Inferior Vena Cava, EF: Ejection Fraction) (MannWhitney U test)

Conclusions: We believe that MEWS and HOTEL scoring systems can effectively evaluate patient conditions, serving as valuable tools for early diagnosis and treatment in emergency departments. However, Inferior Vena Cava collapsibility and EF measured by bedside ultrasonography have shown limited predictive value for mortality. Combining traditional scoring systems with modern imaging techniques may provide a more comprehensive approach to assessing critically ill patients, potentially leading to faster recognition, appropriate treatment, and improved survival outcomes.

Keywords: Emergency Department, Critical Patient, Scoring Systems, Ultrasonography



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Pub No: S-164

Assessing Professional Commitment Among Medical Interns Post-Emergency Medicine Internship

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Background and aim: The emergency medicine internship is a pivotal rotation in medical education, characterized by significant responsibilities and hands-on clinical experience. In Turkey, this internship follows six years of rigorous academic and clinical training. The Commitment to the Medical Profession Scale (CMPS), known for its reliability in Turkish, is used to evaluate intern dedication. This study aims to assess the dedication of medical interns following their emergency medicine internship and to identify factors influencing this dedication, particularly those that may impact future career trajectories.

Methods: This prospective survey study targeted medical interns who completed their emergency medicine internship during the 2022-2023 academic year at Muğla Sıtkı Koçman University. Participants completed an anonymous questionnaire, including 30 closed-ended questions and the CMPS, providing a comprehensive assessment of their professional dedication.

Results: The study included 109 intern doctors (mean age 24.39 ± 1.20 years), with 52.3% being female. Among them, 75.2% chose medical school as their first choice, while 42.2% experienced at least one academic or clinical failure. The overall dedication score had a median of 35 (ranging from 11 to 45), with males scoring slightly lower (median 33) compared to females (median 36), though this was not statistically significant. Female interns reported higher initial professional aspirations, but their CMPS scores were comparable to those of their male counterparts. Interns who faced academic challenges showed lower commitment and increased career anxiety. Nearly half of the interns expressed a desire to work abroad, raising concerns about potential brain drain within the national healthcare system.

Conclusions: The study underscores the need for educational reforms that provide robust academic support and reduce gender disparities, essential for fostering a resilient and dedicated medical workforce to meet healthcare demands both domestically and internationally.

Keywords: Emergency Medicine, Medical Internship, Professional Dedication, Career Aspirations



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Pub No: S-170

Assessment of Coronary Artery Dominance on Prognosis and Mortality in Patients with Anterior ST-Elevation Myocardial Infarction

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Background and aim: This study aims to evaluate the impact of coronary artery dominance on prognosis and mortality in patients with anterior ST-elevation myocardial infarction (STEMI).

Methods: We analyzed a cohort of patients with anterior STEMI, comparing survivors (n=51) and non-survivors (n=22). We assessed various clinical and laboratory variables, including age, sex, comorbid conditions, and indices of systemic inflammation. Univariable and multivariable logistic regression analyses were performed to identify independent predictors of mortality.

Results: ** Non-survivors were significantly older (68 vs. 51 years, $p<0.001$), had higher rates of diabetes mellitus (8% vs. 14.4%, $p=0.029$), hypertension (54.5% vs. 23.7%, $p=0.008$), and chronic renal failure (18.2% vs. 0.8%, $p=0.002$). They also had lower left ventricular ejection fraction (41% vs. 50%, $p=0.024$) and higher triglyceride levels (102.9 mg/dL vs. 145.5 mg/dL, $p=0.042$). Despite these differences, coronary artery dominance (left vs. right) did not significantly impact mortality ($p=0.484$). Multivariable analysis revealed that age (HR 1.060, 95% CI 1.002-1.121, $p=0.041$), NLR (HR 1.233, 95% CI 1.136-1.339, $p<0.001$), SIRS (HR 1.175, 95% CI 1.071-1.129, $p<0.001$), SII (HR 1.001, 95% CI 1.000-1.001, $p<0.001$), and AISI (HR 1.001, 95% CI 1.000-1.001, $p<0.001$) were independent predictors of mortality.

Receiver operating characteristic (ROC) analyses showed that the best cut-off value of the SIRS to predict the mortality was 5.56 with 69.5 % sensitivity and 86.4 % specificity (AUC=0.852; 95 % CI: 0.779-0.925 $p<0.001$)

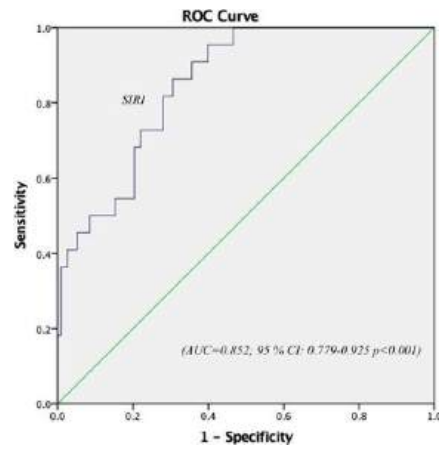


Table 1. Clinical, demographic and laboratory characteristics of the study group according to mortality in patients with acute myocardial infarction.

Variables	Survivors n=	Non-survivors n=	P value
Age, years	51(45-60)	68(53-79)	<0.001
Sex, male %	87.7	77.3	0.362
Diabetes Mellitus, %	14.4	8	0.029
Hypertension, %	23.7	54.5	0.008
Smoking, %	30.5	9.1	0.039
COPD, %	1.7	9.1	0.116

Chronic Renal Failure, %	0.8	18.2	0.002
LVEF, %	50(40-55)	41(40-50)	0.024
Left coronary dominance, %	40.7	50	0.484
Hospitalization time, day	3(3-4)	3.5(1-7.75)	0.799
Total cholesterol, mg/dL	204.5±48.1	192.5±67.7	0.505
LDL cholesterol, mg/dL	131(107.5-163.5)	105(89-165.2)	0.376
HDL cholesterol, mg/dL	42.3±11.7	46.3±13.5	0.277
Triglyceride, mg/dL	145.5±101	102.9±68.8	0.042
Troponin, ng/ml	225.6±486	153±221	0.275
Lactate, mmol/L	2.95±1.54	3.52±2.44	0.339
Platelet count, ×10 ⁹ /L	336±102	290±68	0.012
MPV	10±1.1	10±1.0	0.985
NLR	2.81(1.71-5.16)	12.28(7.32-17.48)	<0.001
SIRI	3.34(2.6-5.86)	9.21(5.89-25.63)	<0.001
SII	896.9(534.4-2010)	3015.4(1842.9-5125.2)	<0.001
AI SI	1078.5(627.9-2122.7)	2684.1(1324.3-7653)	<0.001

Table 2. Univariable and Multivariable logistic regression analysis to detect the independent predictors of mortality in patients with acute anterior myocardial infarction.

Variables	Univariable Analysis			Multivariable Analysis		
	HR	(95% CI)	p	HR	(95% CI)	p
Age	1.092	10.461-140	<0.001	1.060	1.002-1.121	0.041
LVEF	0.940	0.897-0.986	0.011	0.944	0.888-1.004	0.067
Platelet count	0.994	0.988-1.000	0.053	0.993	0.984-1.002	0.106
Hypertension	0.259	0.101-0.664	0.005	0.527	0.136-2.049	0.355
Diabetes Mellitus	0.295	0.107-0.808	0.018	0.309	0.066-1.448	0.136
Smoking	4.390	0.974-19.783	0.054	1.222	0.192-7.775	0.832
NLR	1.233	1.136-1.339	<0.001			
SIRI	1.195	1.110-1.286	<0.001	1.175	1.071-1.129	<0.001
SII	1.001	1.000-1.001	<0.001			

				
AISI	1.001	1.000-1.001	<0.001	

Conclusions: **: In patients with anterior STEMI, coronary artery dominance does not significantly affect mortality. Instead, age and systemic inflammation indices (NLR, SIRI, SII, AISI) are more predictive of adverse outcomes. These findings suggest a need to focus on systemic inflammatory markers and patient age when assessing risk and managing patients with anterior STEMI.

Keywords: Coronary Artery Dominance Anterior ST-Elevation Myocardial Infarction Mortality Prediction Systemic Inflammation Indices Left Ventricular Ejection Fraction



Ref No: 7184

Pub No: S-166

Comparison of Analgesic Efficacy of Ibuprofen and Dexketoprofen in Pain Management of Long Bone Fractures: A Prospective, Randomized, Double-Blind Study

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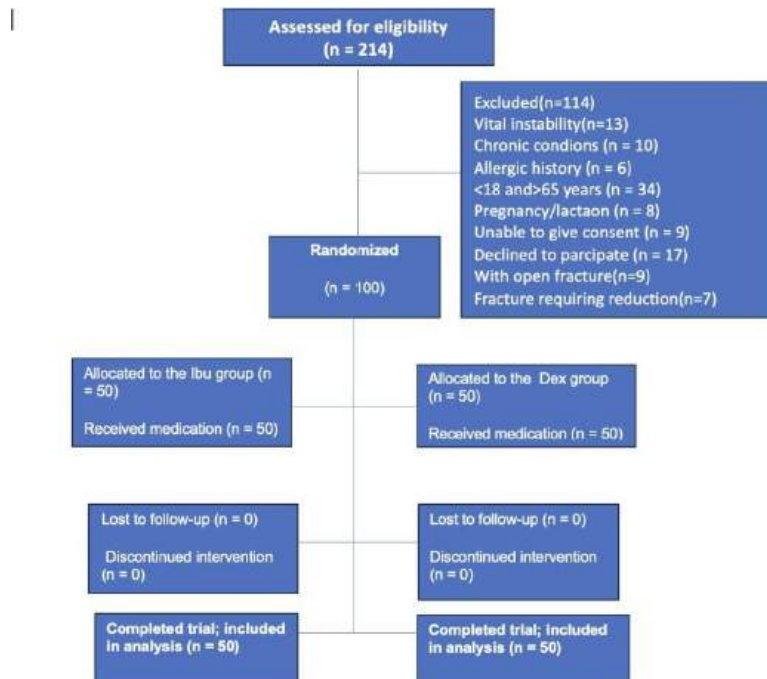
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Background and aim: Long bone fractures (lbf) often cause severe pain, impacting patients' quality of life. This prospective, randomized, double-blind study aimed to compare the analgesic efficacy of dexketoprofen (dex) and ibuprofen (ibu) in lbf patients in the emergency department.

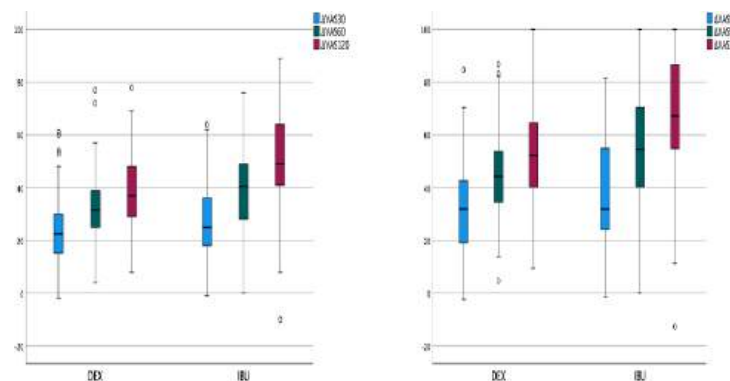
Methods: Conducted between August 10, 2023, and January 17, 2024, the study included 100 eligible patients randomized into dex and ibu groups. Visual Analog Scale (VAS) scores were measured at baseline and at 30, 60, and 120 minutes. DeltaVAS (Δ VAS) values and Δ VAS percentages (Δ VAS%) were calculated. Primary endpoints were Δ VAS scores (Δ VAS 30-60-120) and Δ VAS% for comparative analysis.

The Consort flow diagram illustrating the study

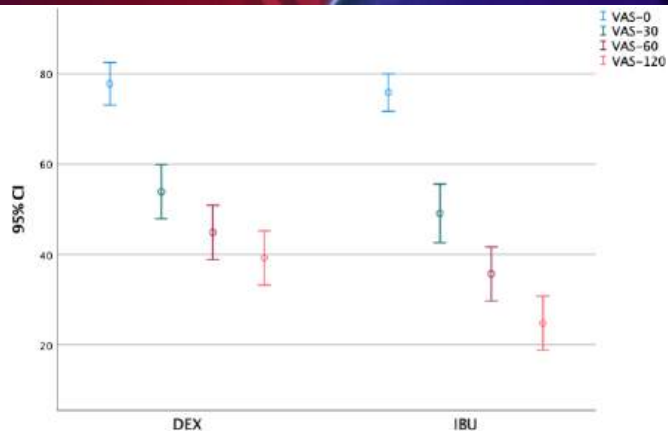


Results: Statistical analysis showed no significant difference in Δ VAS30 ($p=0.359$). However, Δ VAS60 exhibited a significant difference ($p=0.027$), as did Δ VAS120 ($p<0.001$). Δ VAS%30 showed no significance ($p=0.224$), but Δ VAS%60 and Δ VAS%120 were clinically and statistically significant ($p=0.017$ and $p<0.001$, respectively).

Comparison of VAS scores among the groups at the 0th 30th, 60th, and 120th minutes



VAS values of participants at different measurement points and the corresponding reductions at the 30th, 60th, and 120th minutes compared to baseline



Conclusions: Ibuprofen 800 mg demonstrated superior analgesic efficacy at 60 and 120 minutes compared to dex in long bone fractures. These findings suggest ibuprofen's potential as an effective pain management option in emergency departments.

Keywords: Long Bone Fractures, Dexketoprofen, Ibuprofen, Analgesic Efficacy, Emergency Department



Ref No: 7317
Pub No: S-159

Comparison of DECAF and NEWS2 Scores for Mortality and ICU Admission Prediction in Acute COPD Exacerbations

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Background and aim: Chronic obstructive pulmonary disease (COPD) patients visit emergency departments (EDs) frequently with exacerbations, and management of these patients in crowded EDs becomes difficult. The aim of this study was to compare the DECAF and NEWS2 scores, in terms of predicting 30-day mortality and intensive care unit (ICU) admission in patients presenting to the ED with acute exacerbation of chronic obstructive pulmonary disease (AECOPD).

Methods: This is a single-center, observational, prospective study conducted in the emergency medicine clinic of a tertiary care hospital. In the study, the DECAF and NEWS2 scores of the patients presenting to the ED with AECOPD were recorded. ROC analysis was applied to understand the prognostic accuracy of both scoring systems.

Results: A total of 467 patients were included in the study. According to ROC curves for mortality, the AUC for the DECAF score was 0.748 (95% CI: 0.684-0.815; $p=.001$), while the AUC for the NEWS2 score was 0.732 (95% CI: 0.664-0.800; $p=.001$). According to ROC curves for ICU admission, the AUC for the DECAF score was 0.732 (95% CI: 0.683-0.781; $p=.001$), while the AUC for the NEWS2 score was 0.783 (95% CI: 0.738-0.828; $p=.001$).

Conclusions: The results of this study showed that both DECAF and NEWS2 scores might be used to predict the 30 day mortality and ICU admission of patients who visited ED for AECOPD.

Keywords: chronic obstructive pulmonary disease, exacerbation, DECAF score, NEWS2 score, emergency department



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Preliminary Analysis of Hyperglycemic Crises in Patients with Serum Glucose Levels Above 1000 mg/dL

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Background and aim: Hyperglycemic crises, including diabetic ketoacidosis (DKA), hyperosmolar hyperglycemic state (HHS), and mixed forms, are severe complications of diabetes mellitus (DM) commonly seen in emergency departments (EDs). Despite advancements in DM management, mortality rates remain significant. There is limited data on patients with extreme hyperglycemia exceeding 1000 mg/dL, and this study aims to examine their clinical characteristics and outcomes.

Methods: This retrospective study was conducted in a university-affiliated hospital's ED from July 1, 2019, to January 1, 2023. All adult patients diagnosed with hyperglycemic crises during this period were included. The following parameters were extracted upon admission to the ED: age, sex, comorbidities, past medication use, diabetes history, type of diabetes diagnosed, pre-existing diabetes treatments, and precipitating causes of hyperglycemic crises. The primary end point was in-hospital all-cause mortality.

Results: During the study period, 419,505 adult ED visits were recorded in the hospital's electronic health data system. Of these, 650 consecutive hospitalizations (0.15% of total visits) were related to hyperglycemic crises. Among these, 11 patients with serum glucose levels exceeding 1000 mg/dL were identified and categorized into three groups: DKA (6 patients, 60.4%), HHS (4 patients, 26.4%), and mixed form (2 patients, 13.2%). The mean age of the patients was 66.7 ± 15.8 years (range: 19-94 years), with 66.1% being male. A total of 9 out of 11 patients died, yielding an all-cause in-hospital mortality rate of 82%. The median survival time was 4 days (range: 1-13 days). Infections were the most frequent precipitant of hyperglycemic crises, identified in 41.7% of cases, followed by newly diagnosed diabetes (33.3%) and medication non-adherence (26.5%). The mean admission blood glucose level was 1074 ± 10.0 mg/dL.

Conclusions: Hyperglycemic crises with glucose levels over 1000 mg/dL carry a high mortality risk, emphasizing the need for early intervention and addressing the underlying causes, such as infections and non-adherence to treatment.

Keywords: Hyperglycemic Crises, mortality, emergency department



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Pub No: S-134

Evaluation of the frequency and results of tomography use in patients diagnosed with renal colic in the emergency department

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Background and aim: The importance of reducing unnecessary computed tomography (CT) imaging for renal colic symptoms is recognized internationally. In this study, we aimed to evaluate the frequency and indications for CT imaging and the results of CT imaging in patients diagnosed with renal colic in the emergency department.

Methods: The study is a retrospective study. Between 1 January 20201 and 31 December 2023, patients aged 18 years and older who were diagnosed with renal colic in the Emergency Medicine Clinic and who had a non-contrast urinary tomography was included in the study. Demographic data, comorbid diseases, complaints at presentation, vital signs, and laboratory results were investigated. CT results were evaluated for the presence of stones, hydronephrosis with stones, simple cysts and masses. Simultaneously, other abdominal pathologies that may cause morbidity in the patient were evaluated. CT indications, findings, final diagnosis, discharge or hospitalization status were analyzed.

Results: The study included 232 patients. The most common indication for CT was severe flank pain, and no indication was found in 15% of the patients. In 7.8% of the patients, CT was performed because of abdominal pain accompanying flank pain. The rate of abdominal pathology other than urolithiasis that could cause morbidity was 4.7% and the most common pathologies were acute cholecystitis and appendicitis.

table 1

Age , years, median (IQR 25-75)	33.2 (44-55.7)
Sex n (%)	162 (69.8%)
Male	
Co-morbidity n (%)	204 (87.9%)
No comorbidity	13 (5.6%)
hypertension	8 (3.4%)
Diabetes Mellitus	6 (2.6%)
Cardiac disease	14 (6%)

Urological illness	37 (15.9%)
Urolithiasis	6 (2.6%)
Others	
Symptoms n (%)	206 (88.8%)
Unilateral flank pain	96 (41.4%)
Dysuria	66 (28.4%)
Abdominal pain	55 (23.7%)
Nasua/Vomiting	42 (18.1%)
Hematuria	14 (6%)
Fever	32 (13.7%)
Other	
Vital signs	88 (80-95)
Pulse	134 (126-138)
Systolic tension	84 (80-91)
Diastolic tension	36.2 (36.1-36.2)
Temperature	
laboratory, median (IQR 25-75)	107 (95-124)
Glucose	33 (27-40)
BUN mg/dL	1.03 (0.9-1.33)
Creatinine mg/dL	11 (8.6-12.7)
WBC	2 (1-5)
Urine analysis	3 (1-52)
Erythrocyte	1014 (1006-1022)
Leukocyte	
Density	



Urology consultation	56 (24.1%)
Hospitalization n (%)	20 (8.6%)
Hospital stay duration, (days) median (IQR 25-75)	2 (1-4)

Demographic data of patients (n=232)

table 2

CT results	
those who are not stones	75 (32.3%)
Only stone	70 (30.2%)
Stone +hydronephrosis	87 (37.5%)
Simple kidney cyst	23 (9.9%)
Pathologies that may cause morbidity	
Acute cholecystitis	11 (4.7%)
Acute appendicitis	3
Ovarian cyst	3
acute pancreatitis	2
renal infarction	2
	1
CT indication	66 (28.4%)
Severe pain/recurrent analgesic need	48 (20.7%)
Suspected UTI	30 (12.9%)
Vomiting more than twice	42 (18.1%)
Hematuria	12 (5.2%)
Oliguria	37 (15.9%)



Presence of urolithiasis	18 (7.8%)
Abdominal pain with side pain	30 (12.9%)
After consultation	35 (15.1%)
No indication found	

CT findings

Conclusions: CT is often used as an initial diagnostic modality for suspected recurrent renal colic despite current guidelines. In this study, CT was most commonly performed because of severe flank pain. In a considerable number of patients, there was no indication for CT imaging. Current guidelines are needed to reduce unnecessary CT imaging.

Keywords: computed tomography, renal colic, emergency department



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Investigation of The Effect of Electrocardiography Findings on 30-Day Mortality in Patients Applied to the Emergency Department for Syncope

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Background and aim: In our study, we aimed to contribute to the literature by investigating the mortality rates of male and female patients over the age of 18 who applied to the emergency department with syncope within 30 days according to the ECG findings

Methods: Our study is prospective, observational and single-centered. Between 01.04.2021 and 01.10.2021, a total of 217 patients, 116 male and 101 female were included in the study. Patients included in the study or their relatives were contacted by phone on the 30th day and the patients were followed up.

Results: In our study 53.5% (n=116) were men, 46.5% (n=101) were women, and the mean age was 46.41±19.42 years. It was observed that the patients with bundle branch block, arrhythmia, QRS prolongation, QT prolongation and AV block in their ECGs had a higher mortality rate (p<0.05). The sum of the highest R and deepest S waves in the chest leads in the ECGs of the patients was calculated, and a significant correlation was found between the increase in this value and the patient mortality (p=0.002).

Table 1. Chi-square Results Performed in the Context of ECG and Mortality Status

	Alive		Death		Total		
Normal Sinus Rhythm	n	%	n	%	n	%	P
No	90	92,8	7	7,2	97	100	.013*
Yes	119	99,2	1	0,8	120	100	
	Alive		Death		Total		
Atrioventricular Block	n	%	n	%	n	%	P
No	205	96,7	7	3,3	212	100	.050*
Yes	4	80	1	20	5	100	
	Alive		Death		Total		
QT Interval Prolongation	n	%	n	%	n	%	P
No	202	98,5	3	1,5	205	100	.000***
Yes	7	58,3	5	41,7	12	100	
	Alive		Death		Total		
QRS Distance Prolongation	n	%	n	%	n	%	P

No	208	97,2	6	2,8	214	100	.000***
Yes	1	33,3	2	66,7	3	100	
	Alive		Death		Total		
Arrhythmia	n	%	n	%	n	%	P
No	159	98,1	3	1,9	162	100	.014*
Yes	50	90,9	5	9,1	55	100	
	Alive		Death		Total		
Branch Blocks	n	%	n	%	n	%	P
No	195	97,5	5	2,5	200	100	.001***
Yes	14	82,4	3	17,6	17	100	
	Mortality	Average	Average Rank	Total of Ranks	U	P	
R+S^a	Alive	21,63	108,07	22586	294,5	.002**	
	Death	24,63	133,38	1067			

Conclusions: Syncope is one of the frequent reasons for admission to the hospital. In our study, we discussed various ECG parameters that were individually analyzed and compared with each other in terms of one-month mortality of the patients. We found that patients with bundle branch block, arrhythmia, QRS prolongation, QT prolongation, and AV block had a higher mortality rate, and patients with normal sinus rhythm had a lower mortality rate. We have seen that the high R+S value, which has never been studied before, is directly proportional to mortality. In conclusion, ECG evaluation is important in the evaluation of syncope patients, but it is not sufficient alone. The importance of the patient's history, physical examination findings, comorbidities, and the clinician's view of the patient should not be forgotten.

Keywords: Electrocardiography, Syncope, Emergency Service, R+S ratio, Mortality



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Can BUN/Albumin Ratio Be Used As A Predictive Parameter For Mortality In A Pneumonia Patient?

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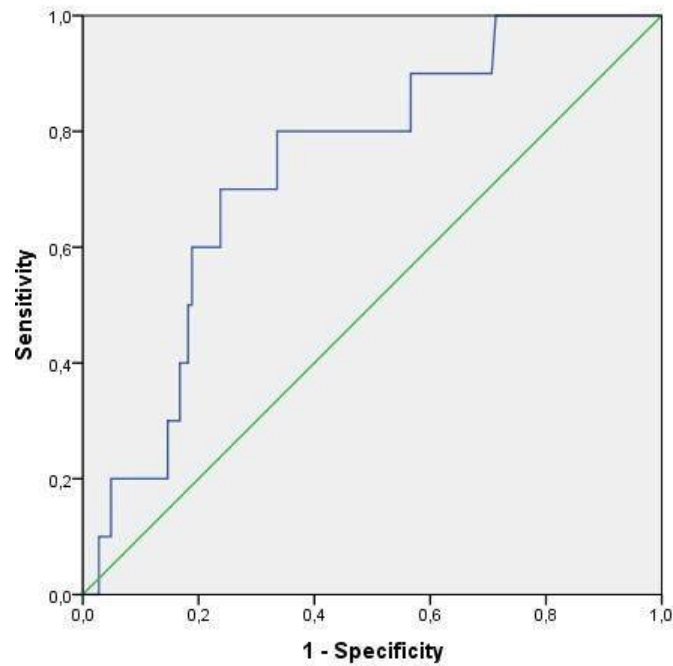
Background and aim: It has been frequently studied in the literature that the ratio of blood urea nitrogen (BUN) to albumin (BAR) can be used as a parameter in the course of many clinical conditions such as sepsis, cancer and cardiovascular diseases. The aim of our study is to examine the usability of BAR as a guiding parameter to indicate poor outcome and mortality in pneumonia patients.

Methods: The study was designed retrospectively, and the data of pneumonia patients who applied to our emergency department between 01.01.2024 and 01.06.2024 were examined. Demographic characteristics, vital parameters, comorbid diseases, discharge, hospitalization and exitus data of the patients were recorded. Factors affecting poor outcome and mortality were examined.

Results: 154 patients were included in the study, the female/male ratio was 67/87; The mean age was 55.8 ± 18.0 years. The most common co-morbid disease was hypertension (25.3%). The median BAR value of the patients was calculated as 2.71 (IQR: 0.92). It was determined that 53 (34.4%) of the patients were followed in the ward and 12 (7.8%) in the intensive care unit. The in-hospital mortality rate was determined as 6.5%. The power of BAR to make accurate decisions in predicting mortality was examined with ROC curve analysis (AUC-Area under the curve: 0.739, $p = 0.012$) (Figure 1). The sensitivity of BAR 3.01 value in predicting in-hospital mortality was found to be 70% and its specificity was 71%.

Figure 1

BUN-Albumin Ratio: ROC Curve Analysis



Conclusions: As a result of our study, we found that the success of BAR rates in showing the mortality risk of patients in the early period in pneumonia patients admitted to the emergency department was statistically significant. We think that BAR values can be used as a simple and inexpensive parameter to predict mortality in pneumonia patients.

Keywords: Pneumonia, BUN, albumin, BAR, Mortality



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Pub No: S-207

The Effects of Virtual Reality Use on Patient Pain And Anxiety During Arterial Blood Gas Collection: A Randomized Controlled Trial

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Background and aim: We aimed to investigate the effects of using Virtual Reality (VR) on pain and anxiety during arterial blood gas puncture.

Methods: This study was conducted as a single-center, prospective, randomized, controlled clinical trial. Pre-procedural expected pain levels and anxiety about the procedure were recorded through a preliminary survey. A 100 mm Visual Analog Scale (VAS) was used for pain, and a 5-point Likert scale enhanced with emojis was used for anxiety. During the arterial blood gas sampling, the VR group watched a simulation of flying over mountains, lakes, and forests (National park Lena Pillars, Russia. 16K 360 aerial video) using the Oculus Quest 2 (Meta, USA, 2019) headset. The control group underwent the standard arterial blood gas sampling procedure. Post-procedural pain was recorded using a separate VAS, and procedural anxiety was recorded using a separate Likert scale.

Results: The study included 100 patients, with 50 in the VR group and 50 in the control group. The average pre-procedural expected pain VAS value was 49.0 ± 20.9 mm in the VR group and 53.9 ± 22.1 mm in the control group. The average post-procedural pain VAS value was 19 ± 15.8 mm in the VR group and 28 ± 22.7 mm in the control group. The changes in Δ VAS and % Δ VAS within the groups were not statistically significant for procedural pain ($p=0.345$, $p=0.146$). The median pre-procedural anxiety Likert values were 3 (2-4) in the VR group and 3 (2-3.25) in the control group. The median post-procedural Likert value was 4 (4-4) in the VR group and 3.5 (3-4) in the control group. The comparison of median values within groups showed that the reduction in anxiety was statistically significant in favor of the VR group ($p=0.014$).

Demographic Distributions of Patients

Variables		Groups			p-value
		VR	Control	Diff - 95% CI	
Gender, n (%)	Male	31 (62)	30 (60)	-0.18 – 0.22	0.838*
	Female	19 (38)	20 (40)		
Age, Median (25-75%)		60 (57-63.25)	59 (53.75-63)		0.255†
Size, Mean ± SD		165.4 ± 7.9	162.1 ± 14.9	-8.07 – 1.42	0.168‡
Weight, Mean ± SD		80.2 ± 21	84.9 ± 22.8	-3.96 – 13.44	0.282‡
Wrist Circumference (cm), Mean± SD		18.16±1.23	18.12±1.02	-0.49 – 0.41	0.860‡
Previously had ABG taken, n (%)		34 (68)	33 (66)	-0.18 – 0.23	0.832*
SBP (mmHg), Mean ± SS		149.6±29.3	135±23.1	-25.14 - -4.17	0.007‡
DBP (mmHg), Mean ± SS		77.4±13.9	71.2±12.1	-11.3 - - 0.93	0.021‡
Pulse, (BPM)		84.9±15.2	90.6±16.5	-0.61 - -11.97	0.076‡
Saturation, (%)		92±3.9	91.2±5.5	-2.75 – 1.03	0.369‡
Respiratory Rate, (BPM)		19.9±4.9	18.9±4.9	-2.97 – 0.89	0.290‡

*Pearson Chi-square test, †Mann Whitney-U, ‡ Student-t test
Diff: Difference, CI: Confidence Interval, SD: Standard Deviation, n: Sample Size, BPM: Beats per Minute, SBP: Systolic Blood Pressure, DBP: Diastolic Blood Pressure.

Procedure Pain Data

		MEASUREMENTS		Diff – 95% CI	p-value
		VAS-0 (mm)	VAS-1 (mm)		
GROUPS	VR, Mean ± SD	49±20.9	21.8±17.3	20.87 – 33.56	<0.001*
	Control, Mean ± SD	53.9±22.1	28±22.7	18.76 – 32.91	<0.001*
Diff – 95 % CI		-3.69 – 13.37	-1,79 – 14.23		
p-value		0.263 ‡	0.127 ‡		

*Paired sample -t test, ‡ ; Student-t test
Diff: Difference, CI: Confidence Interval, SD: Standard Deviation, VAS: Visual Analog Scale

Both groups felt less pain than expected, but there was no statistically significant difference in the intergroup comparison.

Process Anxiety Data

		MEASUREMENTS		p-value
		Anxiety-0 (Likert)	Anxiety-1 (Likert)	
GROUPS	VR, Median (25-75%)	3(2-4)	4(4-4)	<0.001*
	Control, Median (25-75%)	3(2-3,25)	3,5(3-4)	<0.001*
	p-value	0.266 [‡]	0.014 [‡]	
* Wilcoxon test, [‡] Mann whitney U test				

Both groups stated that they felt less anxious after the procedure, but in the intergroup comparison, this difference was statistically significant in favor of the VR group.

Conclusions: Use of VR is not effective in reducing procedural pain during radial arterial blood gas sampling, but it does reduce procedural anxiety for patients.

Keywords: VR (Virtual Reality), ABG (Arterial Blood Gas), Pain, Anxiety, VAS (Visual Analog Scale)



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Pub No: S-158

Comparison of salient features and discriminative features learning methods in electrocardiography training of emergency medicine residents

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Background and aim: Cognitive load theory posits that augmenting the germane load enhances learning, whereas augmenting the intrinsic or extraneous load impedes the learning process. The worked examples method is widely regarded as one of the most efficacious learning strategies. There are two methods of worked examples method: The salient features and the discriminative features. The primary objective of the study was to assess the impact of the salient features and discriminative features techniques on the electrocardiogram (ECG) training of emergency medicine residents.

Methods: This study was conducted using a randomized, prospective, crossover design. The study comprised emergency medicine residents working in a tertiary emergency department. The initial group underwent training on the salient features of bradycardia, followed by instruction on the discriminative features of tachycardia. The second group vice versa.

Results: A total of 26 emergency medicine residents were included in the study. There was no significant difference between the salient features and discriminative features techniques in the training of emergency medicine residents in ECG interpretation, both for tachycardia and bradycardia training.

Conclusions: This study demonstrates that both the salient features and discriminative features training techniques are applicable for educating emergency medicine residents in ECG interpretation. However, since the discriminative features method was reported to cause more germane load and less intrinsic load, this method may be prioritized over the other.

Keywords: education, emergency department, electrocardiography



Ref No: 7799

Pub No: S-153

A 10-year retrospective review of laboratory tests in the evaluation of patients with psychiatric symptoms admitted to the emergency department

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Background and aim: This study aims to evaluate the impact of age, presence of medical comorbidities, history of psychiatric illness and presenting complaints on clinical decision-making and one-year mortality in patients presenting to the emergency department with psychiatric symptoms, as well as the efficiency of routine laboratory testing in detecting medical conditions.

Methods: The study was a single-center, retrospective cross-sectional study conducted at Kocaeli Derince Training and Research Hospital between 01.01.2012 and 31.12.2021. Laboratory tests, demographic information, psychiatric and medical comorbidities, presenting complaints, emergency department outcomes and 1-year mortality were analyzed on a total of 808 adult patients.

Results: In our study, there were 808 patients. Approximately 6.6% (n=53) of these patients resulted in hospitalization to another department and 3.2% (n=26) were mortal within 1 year. Independent risk factors for hospitalization to another department were medical comorbidity and accompanying medical complaint (OR: 53.27; 95% CI: 11.8-240; p<0.001). Risk factors for mortality were age above 45 years, presence of medical comorbidity and no history of psychiatric illness. The rate of clinically significant abnormal laboratory values in all patients included in the study was 7.5% (n=61) and this rate may increase further in groups stratified according to risk factors. However, it was found that many medical conditions detected by clinically abnormal laboratory values could be predicted by history and physical examination; medical conditions that would cause significant morbidity may not be detected in a total of 3 patients (0.05%).

Conclusions: Our study supports that factors that may affect the management of patients undergoing psychiatric evaluation in emergency departments can be predicted by history and physical examination and that laboratory tests should be used in a more targeted manner. Routine use of laboratory tests should be selective as it may lead to increased costs, patient victimization and workload.

Keywords: emergency department, laboratories, mental disorders, mortality, psychiatric



Ref No: 7864
Pub No: S-197

Treatment management of patients diagnosed with bladder injury secondary to pelvic fractures

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Background and aim: Extraperitoneal bladder rupture is often associated with pelvic trauma. While 83% of patients with bladder rupture have a pelvic fracture, bladder rupture is observed in more than 10% of patients with pelvic fracture. While most intraperitoneal bladder injuries are repaired surgically, extraperitoneal bladder injuries can also be treated non-surgically. In this study, we aimed to retrospectively evaluate the treatment approaches, clinical characteristics and follow-up of patients who developed bladder trauma due to pelvic fracture in our clinic.

Methods: As a result of the examinations performed at Erzurum City Hospital Emergency Service between January 2021 and January 2024, a total of 13 patients who developed extraperitoneal bladder trauma due to pelvic fracture were included in the study. Demographic and clinical characteristics of the patients, laboratory and radiological examinations, procedures performed, patient files, visit and operation notes of the patients who underwent surgical treatment, and patient discharge reports were evaluated retrospectively.

Results: 13 patients were included in the study. The average age of the patients was 45.7 ($\pm$ 14.35) years. Pelvic fractures were detected in 9 (69.2%) patients due to motor vehicle accidents and in 4 (30.8%) patients due to falls. Macroscopic hematuria was present in 8 (61.5%) of the patients, and the bladder was palpable in 3 (23%). There was pelvic fluid collection on abdominal computed tomography in 1 patient (7.6%). It was determined that 9 (69.2%) of the patients received conservative treatment consisting of continuous bladder drainage and antibiotic prophylaxis, and 4 (30.8%) received surgical intervention. It was stated that trauma caused pathology in the bladder neck in 1 patient.

Conclusions: The majority of extraperitoneal bladder ruptures are associated with pelvic fracture. hematuria, abdominal pain, and difficulty urinating may occur. Bladder rupture resulting from pelvic fractures is rare; due to the high mortality rate, early recognition of signs and symptoms can be lifesaving.

Opaque material extravasation in cystography taken due to bladder rupture



Keywords: hematuria, trauma, bladder



Ref No: 8215

Pub No: S-177

Retrospective Analysis of Patients Aged 65 and Over Who Presented to the Emergency Department with Gastrointestinal System Bleeding and Had Endoscopy or Colonoscopy

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Background and aim: The aim of our study is to evaluate the clinical and prognostic features of patients aged 65 and over who applied to our emergency department (ED) with acute gastrointestinal (GI) bleeding and underwent endoscopy and/or colonoscopy.

Methods: The data of patients with the complaint of GI bleeding and underwent endoscopy and/or colonoscopy were obtained from the electronic medical record system between the days January 2020-2023.

Results: The mean age of the total 371 patients (186 women, 185 men) was 78.2 ± 7.8 years. Upper and lower GI bleeding was detected in a total of 309 and 62 patients, respectively. While 127 patients underwent massive transfusion in the ED, 207 patients were admitted to intensive care. The one-month mortality rate was found to be 13.5% (50/371 patients). Warfarin use ($p=0.016$), presence of melena ($p<0.001$), upper GI bleeding (compared to lower GI tract, $p=0.034$) and duodenal ulcer ($p=0.009$) were associated with the need for massive transfusion. The frequency of atrial fibrillation ($p=0.038$) and heart failure ($p=0.002$), the median number of comorbid diseases ($p=0.009$), warfarin use ($p=0.012$), the presence of hematemesis ($p=0.043$) and the presence of upper GI bleeding (compared to lower GI tract, $p=0.033$) were found to be high, while mean hemoglobin ($p<0.001$) and albumin ($p<0.001$) levels were found to be low in patients with intensive care admission compared to those without. The presence of cirrhosis ($p=0.006$), esophageal variceal bleeding ($p<0.001$) and prolonged hospitalization ($p=0.026$) were shown to be associated with one-month mortality. The increase in BUN/albumin ratio, CRP/albumin ratio and neutrophil/lymphocyte ratio measured at the first admission was shown to be related to one-month mortality.

Conclusions: In conclusion, acute GI bleeding in geriatric patients is characterized by high morbidity and mortality rates. Although the presence of multiple comorbid diseases is an important factor determining prognosis in this group, warfarin use may be associated with massive bleeding.

Keywords: Hematemesis, melena, geriatrics, endoscopy, colonoscopy



Ref No: 8287

Pub No: S-178

CTP, MELD, MELD/Na SCORES AS MORTALITY PREDICTORS IN CIRRHOSIS RELATED EMERGENCY COMPLICATIONS

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Background and aim: Many prognostic scores have been used for predicting prognosis in patients with end-stage liver disease. The modified Child-Turcotte-Pugh (CTP) score, the Model for End-Stage Liver Disease (MELD) score and MELD/Na scores are prognostic scores for assessing the prognosis of cirrhosis. In this study, we investigated the effect of CTP score, MELD score, MELD/Na score, which are prognostic models used on mortality to determine the prognosis of patients with cirrhosis in emergency department (ED).

Methods: In our study, the data of patients who were treated in ED due to liver cirrhosis between January 2011 and December 2015 were evaluated retrospectively. The demographic characteristics, vital signs, laboratory results and history were recorded in a common excel. The patients were divided into groups according to their mortality.

Results: According to the MELD score, the low MELD scores group according to their electrolytes, a statistically significant relationship was found in the mean of Na, K, and HCO₃ compared to the high MELD scores group ($p=0.000$, 0.024 , and 0.046). In addition, the CTP average of the patient group with a low MELD/Na score was 5.6, while the CTP average of the patient group with a high MELD/Na score was 8.05, and a statistically significant relationship was found between the two scores ($p=0.000$). When we evaluated the patient groups comparatively according to the mortality status CTP, MELD score and MELD/Na scores were found to be effective in predicting mortality ($p<0,05$).

MELD score



	Meld Score		
	10-20	≥20	P Value
Age	56	61	0,040
Bilirubin	0,3	2,6	0,000
Albumin	3,2	2,4	0,003
INR	0,6	1,3	0,000
Na	141	133	0,000
K	3,8	4,1	0,024
Cl	109,6	106,9	0,063
Ca	8	8,1	0,724
Creatinin	0,3	1,1	0,001
BUN	15,8	4,8	0,000
pH	7,3	7,3	0,946
HCO3	23	20	0,046
Laktat	1,3	2,2	0,096
MELD-Na	19	29	0,000
CTP	5,6	8	0,000

MELD score

MELD-Na score



	MELD-Na Score		
	<25	≥25	P Value
Age	56	61	0,040
Bilirubin	0,3	2,6	0,000
Albumin	3,2	2,4	0,003
PT	14,1	18,4	0,000
INR	0,6	1,3	0,000
Na	141	133	0,000
K	3,8	4,1	0,024
Cl	109,6	106,9	0,063
Creatinin			
BUN	15,8	4,8	0,000
pH	7,3	7,3	0,946
HCO3	23	20	0,046
Laktat	1,3	2,2	0,096
CTP	5,6	8	0,000

MELD-Na score

CTP score



	CTP Score		
	Child A-B	Child C	P-Value
Age	58	62	0,092
Bilirubin	0,04	3,3	0,000
Albumin	3,4	2,1	0,000
PT	143470	197900	0,000
INR	0,8	1,5	0,000
Na	136	133	0,000
K	3,9	4,1	0,071
Cl	109	106	0,001
Ca	8,3	8	0,004
Creatinin	0,2	0,8	0,000
BUN	14,7	36	0,000
pH	7,32	7,33	0,650
HCO3	22	20	0,017
Laktat	1	2,4	0,001
MELD-Na	17,3	25	0,000

CTP score

Conclusions: As a result, we believe that similar to the studies conducted in our study, CTP, MELD and MELD-Na scores are effective as mortality predictors and that using these scoring systems according to the evaluation of individual laboratory findings in the follow-up of critical cirrhosis patients in EDs may also help in making decisions about early hospitalization and discharge of patients.

Keywords: CTP, MELD, MELD/Na, MORTALITY, CIRRHOSIS



Ref No: 8376
Pub No: S-182

Analysis of Steven Johnson and Toxic Epidermal Necrolysis Cases Monitored in Dermatology Clinic

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Background and aim: The objective of this study is to analyze the clinical characteristics, diagnostic procedures, and treatment methods used for patients with Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) who were monitored and treated at the dermatology clinic.

Methods: This study was designed as a retrospective observational study. The study comprised instances of SJS and TEN that were monitored in the dermatology clinic from December 2021 to August 2022.

Results: The study covered a total of 12 patients (6M,6F). Upon analyzing the primary disorders, the following percentages were observed: Epilepsy in 25.0% (n=3) of the cases, tonsillitis in 25.0% (n=3), pneumonia in 16.7% (n=2), soft tissue infection in 8.3% (n=1), bronchiolitis in 8.3% (n=1), convulsion in 8.3% (n=1), and lumbalgia in 8.3% (n=1). (Figure 1) Upon examination of the responsible drugs, it was found that Lamotrigine/Valproic Acid accounted for 16.7% (n=2) of cases, Azithromycin for 8.3% (n=1), Gergaline for 8.3% (n=1), Ibuprofen for 8.3% (n=1), Lamotrigine for 8.3% (n=1), Meronem for 8.3% (n=1), Oxcarbamazepine for 8.3% (n=1), Paracetamol for 8.3% (n=1), Cefuroxime Axetil for 8.3% (n=1), Ciprofloxacin for 8.3% (n=1), while the responsible drug remains unknown in 8.3% (n=1) of cases. Upon examination of mucosal involvements, it is observed that 66.7% (n=8) are oral, whereas 33.3% (n=4) are both oral and genital. The Scortten scale scores of the cases varied between 2 and 3, with an average of 2.58 ± 0.52 and a middle value of 3; 41.7% (n=5) had a score of 2 and 58.3% (n=7) had a score of 3.

Conclusions: An analysis revealed that 66.7% of the cases included the oral mucosa, whereas 33.3% involved both the oral and vaginal mucosa. This discovery suggests that SJS and TEN have a wide-ranging impact that involves damage to the mucous membranes. Involvement of the mucosal tissues in the mouth and genital areas.

Keywords: Steven Johnson syndrome, toxic epidermal necrolysis



Ref No: 8393
Pub No: S-218

The Relationship of Modified Glasgow Prognostic Score with Mortality in Pneumonia

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Background and aim: Community-Acquired Pneumonia continues to be a global cause of frequent emergency department visits and the most common hospitalization. The risk of mortality increases especially in elderly patients and those with comorbid diseases. Therefore, various scoring systems have been developed to predict prognosis in pneumonia patients. The aim of this study is to examine the effect of Modified Glasgow Prognostic Score (mGPS) on hospitalization status and mortality in pneumonia patients and to compare it with Pneumonia Severity Index (PSI) in mortality prediction.

Methods: This study retrospectively analyzed the data of patients diagnosed with pneumonia for one month in December 2023. The mGPS and PSI scores of the patients were calculated, hospitalization status (ward/intensive care) and mortality were recorded.

Results: Of the 55 patients included in the study, 63.6% were male. The mean age of the patients was 65.5. 38.2% of the patients were admitted to the ward and 43.6% to the intensive care unit. In addition, 16.4% died within 30 days. Of those who died, 77.8% had a PSI score above 130 and a mGPS score of 2. It was determined that as the mGPS score increased, the rate of intensive care admission and mortality rates increased significantly. Both mGPS and PSI showed a significant correlation in predicting mortality. PSI predicted mortality more successfully (AUC PSI: 0.82; AUC mGPS: 0.78).

Conclusions: PSI and mGPS scores can be used to predict mortality in pneumonia patients. Although PSI is a stronger predictor of mortality, mGPS is more strongly associated with hospitalization status.

Keywords: Community-Acquired Pneumonia, Mortality, Modified Glasgow Prognostic Score



Ref No: 8508
Pub No: S-138

INVESTIGATION OF THE DIAGNOSTIC VALUE OF ULTRASOUND IN THE DETECTION OF FOREARM FRACTURES IN PEDIATRIC AGE POPULATION REGISTERING TO THE EMERGENCY DEPARTMENT

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Background and aim: Child forearm trauma is one of the most common reasons for admission to the emergency department trauma unit. Our aim in our study is to investigate the diagnostic value of ultrasonography compared to direct radiography in the detection of forearm fractures in children aged 2-15 years whose bone development is not fully formed.

Methods: In our prospective, observational, and single-center study, we compared the data obtained from direct radiography and USG results of those who applied to Kayseri City Hospital using statistical methods.

Results: A total of 87 patients, 60 boys and 27 girls, were included in the study. While fractures were detected in 69 patients, no fractures were observed in 18 patients. 47 of these fractures were only radius, 20 of them were radius and ulna, and 2 patients had only ulna fractures. On USG, we could not detect 3 radius fractures, 1 of which was displaced and 2 of which were nondisplaced. The sensitivity rate of USG for radius-displaced fractures was 96.67%, and the selectivity rate was 100%. Sensitivity was 94.59%, and selectivity was 100% for radius nondisplaced fractures. On USG, we could not detect 3 ulna fractures, 1 of which was displaced and 2 of which were nondisplaced. The sensitivity rate of USG for ulna-displaced fractures was 94.11%, the selectivity value was 100%, and the overall accuracy was 98.85%. For ulna nondisplaced fractures, the sensitivity coefficient was 60%, the selectivity coefficient was 100%, and the overall accuracy rate was 97.70% (Table 1 and Figure 1).

Fracture images in USG

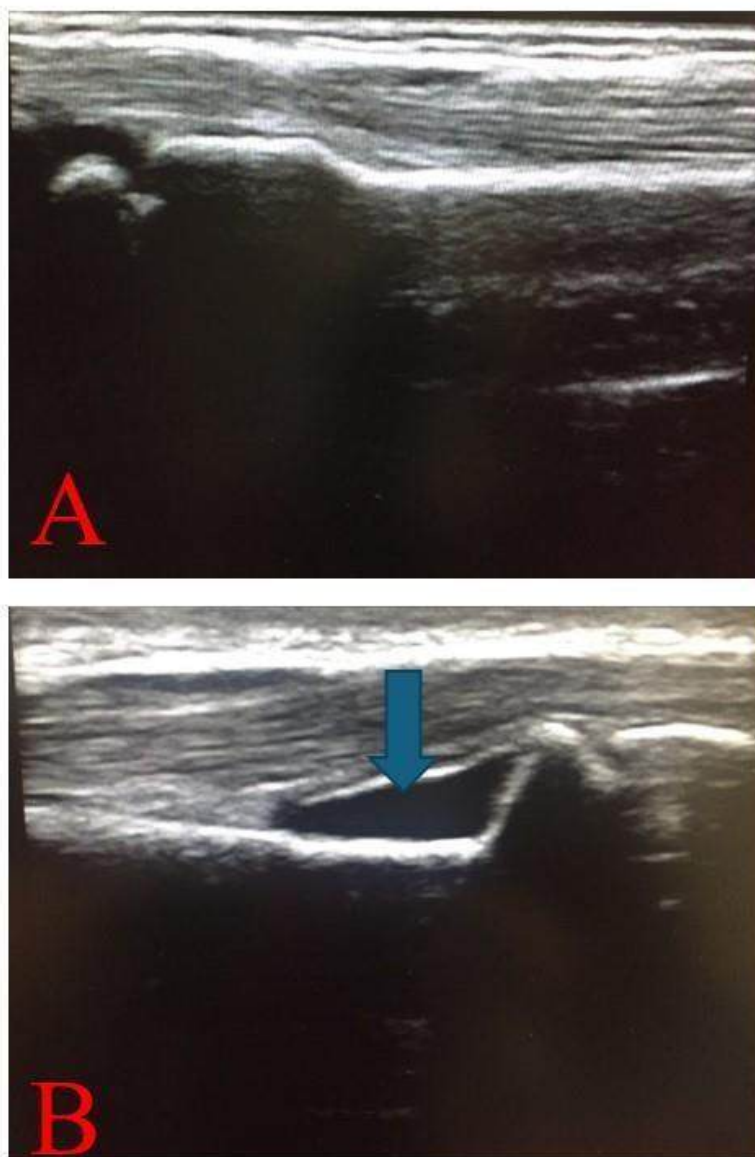


Figure 1

Table 1

	True Positive	True Negative	False positive	False negative
Radius Nondisplaced	35	50	2	0
Ulna Nondisplaced	3	82	2	0



Radius displaced	29	57	1	0
Ulna displaced	16	70	1	0

Comparison of Ultrasound with Direct Radiography

Conclusions: The predictive power of USG in direct radiography results in pediatric forearm trauma was found to be extraordinary. As emergency medicine physicians gain clinical and USG experience, we think that USG may be a more useful, radiation-free, and inexpensive diagnostic tool in detecting forearm trauma in children.

Keywords: Ultrasonography, Forearm Fracture, Pediatric Population, Emergency Room



Ref No: 8540
Pub No: S-173

Determination of the appropriate location of needle decompression application in the treatment of tension pneumothorax using bedside ultrasonography in healthy volunteers with a body mass index over 30

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Background and aim: Tension Pneumothorax (TPT) can lead to life-threatening complications. Without prompt decompression, rapid deterioration can occur. There is ongoing debate about the optimal site for needle decompression due to a high treatment failure rate. This issue is even more complex in obese patients, and there is a lack of sufficient literature on the subject. Our study aimed to evaluate the distance to reach the pleura between the 2nd intercostal space (ICS) along the mid-clavicular line (MCL) and the 5th ICS along the mid-axillary line (MAL) using ultrasound to determine the appropriate location for needle decompression in obese patients with TPT.

Methods: The study was designed as a prospective study. Healthy volunteers with a Body Mass Index (BMI) ≥ 30 were recruited to the study from the Emergency Department at Health Sciences University Kocaeli Derince Training and Research Hospital and, Kocaeli City Hospital. Participants age, gender, comorbid conditions, height, weight, BMI, vital signs, and skin-pleura distances observed by three different practitioners from two separate locations were recorded in the study form.

Results: In our study, data from 91 subjects with ages ranging from 23 to 93 were evaluated. The mean BMI of the subjects was 36.8 ± 4.9 . Practitioners' measurements for MCL had a mean of 28.35 ± 3.66 , while measurements for MAL had a mean of 29.43 ± 3.69 . In all three practitioners' measurements, MCL was significantly shorter than MAL. Measurements taken by the practitioners in both positions were consistent with each other. In both positions, a significant increase in skin-pleura distance was observed with increasing BMI.

Conclusions: The needle decompression procedure, used in the treatment of TPT, can be performed at the 2nd ICS along the MCL in individuals with a BMI ≥ 30 . Point-of-care ultrasound aimed at the bedside target should be employed in the needle decompression procedure due to its ease of accessibility and simultaneous use convenience.

Keywords: needle thoracostomy, obesity, tension pneumothorax, body mass index, point-of-care ultrasound



Ref No: 8548
Pub No: S-196

A RETROSPECTIVE ANALYSIS OF 16 AORTIC DISSECTION CASES

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Background and aim: Acute aortic dissection, a rare but catastrophic condition, involves intimal tearing and blood entering between aortic layers. This leads to high mortality, with most patients dying before hospital arrival. In this study, we conducted a retrospective analysis of aortic dissection cases presented to our hospital.

Methods: This descriptive, cross-sectional study. Cases of aortic dissection presented to our hospital in 2022-2023 were evaluated. The cases were analyzed in terms of age, gender, comorbidities, symptoms, dissection type, affected aortic branches, treatment modality (surgical/medical), ICU admission, complications, and in-hospital mortality.

Results: The dataset consisted of 16 cases, with an average age of 62.7 years (range:28-88).Of the cases, 75% (n=12) were male. The most common symptoms were abdominal pain (n=5), nausea-vomiting, followed by back and lumbar pain (n=4), paraplegia(n=3) and syncope(n=3), leg pain(n=2), and dyspnea (n=2). Seizure, hematemesis, dizziness, and sweating were also observed. Hypertension was the most frequent comorbidity (56.25%). Half of the cases had multiple comorbidities, 18.75% had a history of aortic aneurysm, and 31.25% had no known comorbidities. Two patients had prior aortic surgery, and one had a history of dissection. Dissection types were as follows: 50% had type IIIB, 37.5% had type I, and 12.5% had type IIIA. Medical treatment was administered in 56.25% of cases. The in-hospital mortality rate was 31.25% (n=6), with type I aortic dissection in 83.34% (n=5) of deaths, and one case of type IIIB. Only one fatal case had elevated troponin levels.

Conclusions: Our study shows that, although aortic dissection is commonly associated with the elderly, it can also occur in younger populations (cases aged 28 and 29) and present with a wide range of symptoms. In our study, the most frequently observed dissection type was Stanford B (DeBakey IIIB). Additionally, the majority of fatalities involved type I dissection, highlighting the significance of intimal tear location in prognosis.

Keywords: Aortic dissection, Stanford, De Bakey, mortality, urgent surgery



Ref No: 8565
Pub No: S-194

Preliminary Analysis of Severe Hyponatremia in the ED: Demographic and Outcome Characteristics

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Background and aim: Hyponatremia, defined as a serum sodium concentration below 135 mEq/L, is a common electrolyte imbalance with significant clinical consequences. Severe hyponatremia, defined here as serum sodium below 110 mEq/L, is less common but poses substantial risks. This study investigates the demographic, clinical, and outcome characteristics of patients with extremely low sodium levels presenting to the Emergency Department (ED).

Methods: A retrospective, single-center study was conducted at Muğla's ED from January 1, 2019, to January 1, 2023. The study included patients aged 18 and older with serum sodium <110 mEq/L. Data on age, sex, symptoms, comorbidities, laboratory results, key outcomes, length of hospital stay, and all-cause mortality were collected. The qSOFA score was used to assess severity.

Results: The study included 53 patients with a mean age of 70.8±15.6 years. Of these, 29 patients (54.7%) survived and 24 patients (45.3%) died. Mortality was significantly associated with older age (mean age of deceased: 75.5±12.4 years vs. survivors: 66.9±17.0 years, $p = .046$). Decreased consciousness was the most common symptom (58.5%), followed by seizures (7.5%). COVID-19 was a factor in 13.8% of cases. Higher qSOFA scores and Charlson Comorbidity Index (CCI) scores were linked to increased mortality (qSOFA: $p = .028$; CCI: $p < .001$). Survivors had a longer hospital stay (9.4±7.8 days) compared to non-survivors (6.5±4.7 days), though this difference was not statistically significant ($p = .247$).

Conclusions: Extremely low sodium levels represent a life-threatening condition, particularly in older adults with comorbidities and those at risk of sepsis. The qSOFA and CCI scores are valuable for assessing prognosis and guiding management. Continued research is necessary to improve diagnostic and treatment strategies, especially considering the ongoing impact of COVID-19.

Keywords: Severe Hyponatremia, qSOFA, Emergency Department

Ref No: 8592
Pub No: S-181

Percutaneous balloon kyphoplasty and vertebroplasty in acute, osteoporotic, and pathological vertebral fractures: a retrospective analysis of 150 patients.

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Background and aim: Vertebral fractures are one of the leading causes of admission in emergency departments. The aim of this study was to evaluate the radiological, clinical and functional outcomes of patients with thoracic and lumbar compression fractures treated with balloon kyphoplasty (KP) and vertebroplasty (VP).

Methods: Between 1 January 2014 and 2021, patients with acute, osteoporotic and pathological vertebral fractures treated with percutaneous VP and CP were retrospectively reviewed after approval of the institutional review board. Preoperative and postoperative visual analogue scale (VAS) and Oswestry disability index (ODI), operation time, hospital stay, radiological vertebral fracture levels, cement volume used and cement leakage rates were evaluated and compared for clinical outcomes. Statistical significance was accepted as $p < 0.05$.

Results: During the study period, 120 kyphoplasty and 109 vertebroplasty procedures were performed on 229 fracture levels in 150 patients. The mean age was 67 years (M-F, 63-71 years) in the VP group and 68 years (M-F, 59-72 years) in the CP group and 63% of all patients were female. 23 patients with acute fractures, 196 osteoporotic patients and 10 patients with pathological fractures were included in the study. There was a significant difference between preoperative and postoperative clinical scores in all three study groups ($p < 0.05$). Acute and osteoporotic fractures were mostly at the thoracolumbar junction (T11-L1), while pathological fractures were mostly between T6-12. The operation time was longer in kyphoplasty (45 vs 37 min) and the hospital stay was higher in VP (1.5 days vs 2.1 days). The amount of cement applied was higher in the KP group (5.4 ml vs 7.1 ml) and the cement leakage rate was higher in VP (9% vs 3%).

Figure 1. Radiological images before and after kyphoplasty and vertebroplasty in patients with acute and osteoporotic fractures.



a. 54 years old female patient Lumbar MR sagittal plane, L1 acute compression fracture on STIR sequence, b. cement leakage into the disc space during vertebroplasty procedure, c. cement appearance in L1 corpus on lumbar MR T2

sequence, d. 88 years old male patient L3 osteoporotic fracture on lumbar MR T2 sequence, L3 vertebrae elevated with kyphoplasty balloon, e. cement appearance in L3 vertebra on lumbar sagittal CT.

Figure 2: Radiological images of patients with pathological vertebral compression fractures.



a. A 58-year-old female patient with breast cancer and hypointense metastatic spine involvement at T7 and L1 levels in thoracic MR T1 (white arrow). B. Appearance of vertebroplasty cement at T12 in lumbar direct radiograph of the same patient. c, Pathological compression fracture at T12 in lumbar MR T2 sequence MR of 47 years old male patient with lymphoma, d, Appearance of cement in lumbar CT sagittal plane after kyphoplasty of the same patient and mild epidural cement leakage (white arrow)

Figure 3. Vertebral fracture levels (Y axis) and number of patients with osteoporotic, acute and pathologic vertebral compression fractures (X axis).

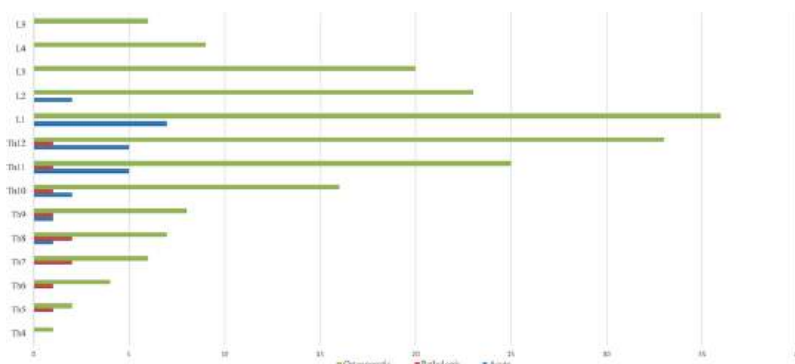


Table 1.

	Acute Group (n=23)		Osteoporotic Group (n= 196)		Pathologic Group (n= 10)	
	Vertebroplasty	Kyphoplasty	Vertebroplasty	Kyphoplasty	Vertebroplasty	Kyphoplasty
No. of Vertebral Level	5	18	101	96	3	6
Age (mean) (yr)	61	60	65	63	68	71
Female	3	11	53	56	1	4
Man	2	7	48	40	2	2



No. of 2 or more treatment sessions	1	2	8	17	0	4
Median follow-up period (mo.)	13	21	18	24	13	4
VAS						
Preoperative	7.4± 1.2	8.6± 1.6	8± 1.4	8±1.4	9± 0.8	8.6±0.8
1.mo.	2.4± 1.1	2.8± 1.1	2.5±1.5	2± 1.3	5.7± 1.8	6±1.7
6 mo.	1.4± 0.7	1.5±1.3	1.8±1.4	1.5± 1.4	4.2± 1.0	4.6±0.9
12 mo.	1± 0.5	0.5± 0.3	1.2±1.1	1.1± 0.8	4.2± 1.9	3.1±1.5
ODI						
Preoperative	39± 20	43± 16	46±13	49±18	73± 16	71±17
1.mo.	33±6	25±12	35±14	32±12	48±9	57±11
6 mo.	20±8	18±10	33±10	28±16	53±8	49±8
12 mo.	22±9	20±11	28±5	20±7	46±10	44±9
Operating Time (Min.)	36±6	45±8	34±9	47±13	42±10	43±14
Length of hospital stay (Day)	2.1 ±0,4	1.8±0.7	1.9±0.4	1.5±0.2	2.2±0.2	1.7.±0.8
Cement volume (ml)	4.8±1.2	6.9±0.9	5.7±1.2	7.4±0.7	5.8±1.4	7.0±0.8
No. of Cement leakage	0	1	7	2	1	1

Comparison of vertebroplasty and kyphoplasty results according to groups.

Conclusions: Percutaneous kyphoplasty and vertebroplasty are effective methods in the treatment of vertebral compression fractures and can rapidly relieve pain in patients.

Keywords: Vertebral fractures, Kyphoplasty, Vertebroplasty, Clinical outcomes, Minimally Invasive Surgery



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Pub No: S-210

Relationship between eosinophil count and mortality in emergency hemodialysis patients

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Background and aim: Chronic kidney disease and acute kidney injury are global healthcare problems. Renal replacement treatments, such as hemodialysis, are performed regularly in an emergency setting to treat these conditions. Predicting the outcomes of these patients can help physicians shape their treatment plan. Eosinophils have been shown to play an important role in the inflammatory response. Recent studies also show that they may play a role in endothelial function. Previous studies have shown that using the peripheral eosinophil count (EOC) could be effective in tracking the prognosis of patients receiving hemodialysis. In our study, our aim was to provide an outlook on the correlation of mortality and EOC alongside other laboratory parameters.

Methods: We analyzed the data of 823 selected patients who received emergency hemodialysis treatment in our dialysis unit between the dates 01/01/2020 and 01/04/2022. Data analysis was performed using the IBM SPSS 27.0 statistical package program.

Results: We have found increased serum levels of lactate and potassium in addition to increased white blood cell count and neutrophil count in the mortality group. We have also found decreased levels of EOC and lymphocyte count along with decreased serum creatinine and sodium levels in the mortality group.

Conclusions: Chronic Kidney Disease and acute kidney injury are significant causes of morbidity and mortality. While EOC can provide a limited outlook on their short-term mortality rate, more large-scale studies are needed to establish this connection.

Keywords: Eosinophil, Emergency Hemodialysis, Renal Failure, Mortality



Ref No: 8792
Pub No: S-151

Impact of Early Analgesia and Sedation Levels on Clinical Outcomes in Mechanically Ventilated Patients in the Emergency Department and ICU

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Background and aim: Patients undergoing mechanical ventilation often experience pain due to various adverse conditions such as immobility, infections, and invasive procedures. The aim of our study is to determine the levels of pain and sedation in adult patients intubated in the emergency department (ED) after stabilization, and to compare these levels with those after admission to the intensive care unit (ICU).

Methods: This study is a single-center, prospective, observational study conducted between March 2023 and March 2024, encompassing patients undergoing invasive mechanical ventilation and followed in the ED and the ICU. The primary outcome measure of our research is the comparison of pain levels of mechanically ventilated patients in the ED after stabilization and during ICU follow-up, assessed using the Critical Care Pain Observational Tool (CPOT). Secondary outcome measures include investigating the impact of first 48 hours pain levels in the ED and ICU follow-up on 30-day mortality, comparing sedation levels in the ED and ICU follow-up using the Richmond Agitation-Sedation Scale (RASS), exploring the relationship between sedation levels and 30-day mortality.

Results: 608 patients were screened after endotracheal intubation (ETI), and a total of 327 patients were included in the study. A statistically significant difference was found when comparing pain levels measured 1-2 hours after ETI in the ED (CPOT-1) with pain levels measured within the first 48 hours after ICU admission (CPOT-3) ($p < 0.001$). Similarly, a statistically significant difference was found when comparing pain levels measured 2-8 hours after ETI in the ED (CPOT-2) with CPOT-3 results ($p < 0.001$). A significant relationship was observed between the CPOT-2 score and mortality ($p = 0.049$).

Conclusions: Establishing a direct relationship between CPOT measurement and mortality is challenging. However, in the mild sedation group, measured as RASS = -2, -1, 0, survival is 2.5 times higher compared to patients who received deep sedation.

Keywords: Mechanical ventilation, analgo-sedation, pain managements, intensive care, emergency department



Ref No: 8827
Pub No: S-152

The Use of Lactate Level/Serum Albumin Ratio as a Mortality Marker in Patients Presenting to the Emergency Department with Acute Heart Failure

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Background and aim: Heart failure (HF) has a significant impact on mortality rates worldwide and is linked to high rates of hospitalization and readmission. Nevertheless, there is no established criterion for the discharge of these patients from the emergency department. This study aims to assess the utility of the lactate/serum albumin (L/A) ratio in predicting 30 and 90-day mortality, as well as the likelihood of hospital readmission within 30 days, in patients presenting to the emergency department with heart failure symptoms.

Methods: This prospective, cross-sectional cohort study consecutively included patients who were diagnosed with heart failure in the emergency department. The study evaluated the correlation between the L/A ratio and 30- and 90-day mortality, as well as the rate of hospital readmission within 30 days. Receiver operating characteristic (ROC) analysis was conducted to assess the predictive accuracy of the L/A ratio.

Results: A total of 410 participants were included in the study. The L/A ratio was identified as a significant predictor of 30-day mortality. Using a serum L/A ratio threshold of ≥ 0.52 , the sensitivity for predicting 30-day mortality was 66.15%, the specificity was 53.04%, and the area under the curve (AUC) was 0.647. At a threshold of ≥ 0.61 , the AUC was 0.635, the specificity was 66.32% and the sensitivity was 56.3%. The L/A ratio and hospital readmission within 30 days did not show any statistically significant correlation.

Conclusions: The L/A ratio shows promise as a predictor of 30- and 90-day death in patients coming to the emergency department with heart failure. However, it was discovered to be an unreliable predictor of hospital readmission within 30 days.

Keywords: emergency departments, heart failure, lactate, albumin, mortality



Ref No: 8899
Pub No: S-217

Is It Possible to Detect ROSC During Chest Compression? Evaluation of a Novel Method: Carotid Artery Compression Ultrasound

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Background and aim: To evaluate the diagnostic accuracy of carotid artery compression using a point-of-care ultrasound probe (POCUS-CAC) in reducing pulse check times and facilitating the detection of return of spontaneous circulation (ROSC) during cardiopulmonary resuscitation (CPR) compared to manual palpation (MP).

Methods: This prospective study was conducted in a tertiary emergency department between January and June 2023. During CPR, POCUS-CAC was performed by placing a linear ultrasound probe transversely on the lateral neck to assess the compressibility of the carotid artery. Complete compression of the artery without any visible pulsation indicated no ROSC, while resistance to compression or partial compression suggested the presence of ROSC. Simultaneously, another clinician performed manual palpation of the femoral artery. The primary outcome assessed in this study was comparing ROSC detection between POCUS-CAC and traditional methods, and the secondary outcome was comparing the time taken to detect ROSC with each method, and the ability to detect ROSC during ongoing chest compressions.

Figure 1. POCUS-CAC Protocol

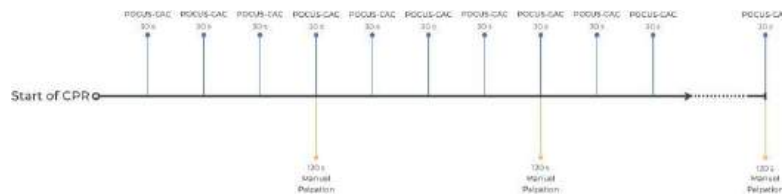
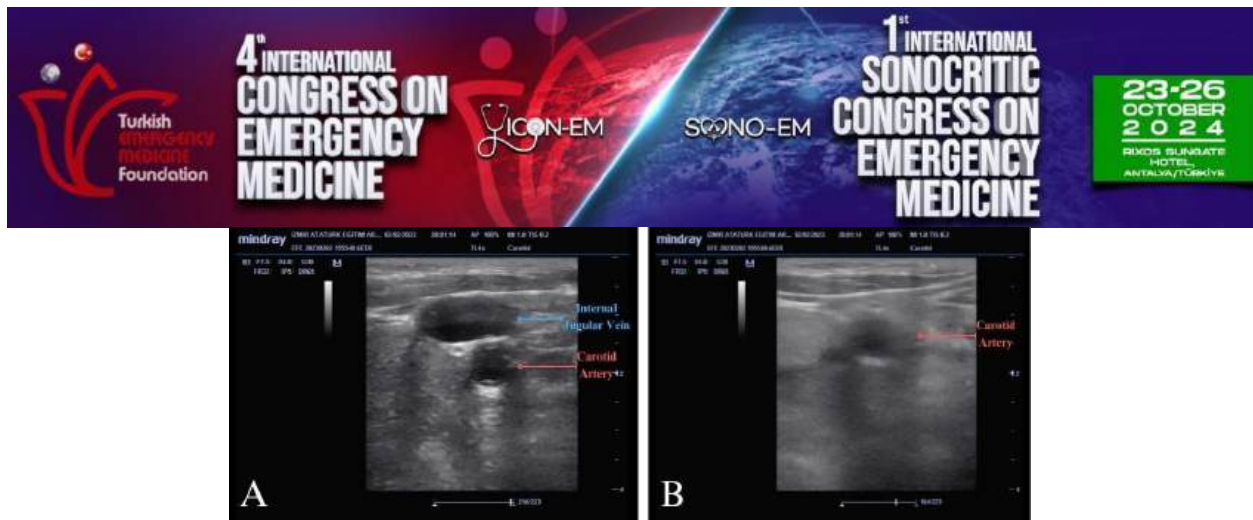


Figure 2. Ultrasound Images Demonstrating POCUS-CAC Method



Results: The study included 41 cardiac arrest patients and analyzed 496 MP pulse and 1984 POCUS-CAC checks. The mean time to identify a pulse using POCUS-CAC was significantly shorter at 2.3 (0.5-7.8, SD $\pm$ 1.2, 95% CI [2.25, 2.35]) seconds compared to 4.7 (2.0-10.5, SD $\pm$ 1.8, 95% CI [4.54, 4.86]) seconds with MP ($p = 0.004$). Additionally, 52.9% of ROSC cases were detected earlier using POCUS-CAC, even during ongoing chest compressions. The POCUS-CAC method required less than 5 seconds in 99.996% of cases.

Figure 3. Case - Average Pulse Check Times



Analysis of Pulse Check Data

	MP	POCUS-CAC	Time difference	p value
Total pulse checks analyzed	496	1984	-	-
Average time for a pulse check	4,7 sec (2,0 - 10,5)	2,3 sec (0,5 - 7,8)	2,4 sec (0,49 times earlier)	0,004
Average time to decide ROSC or termination at the end of CPR	4,9 sec (0,5 - 7,8)	2,1 sec (0,6 - 5,2)	2,8 sec (0,43 times earlier)	0,009
	208/496	8/1984	-	0,001



Number of pulse checks lasting over 5 seconds (%)	(41,9%)	(0,004%)		
		9/17	93,33±62,65 sec	
Number of patients with ROSC detected during chest compressions	-	(52,9%)	earlier	0,001

Conclusions: POCUS-CAC significantly reduces pulse check times and enhances the early detection of ROSC during CPR, offering a reliable and rapid alter-native to traditional manual palpation methods in emergency settings.

Keywords: CPR, ROSC, POCUS-CAC, carotid artery, compression ultrasound



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Pub No: S-216

DETECTION OF PATHOLOGY IN BRAIN IMAGING IN PEDIATRIC PATIENTS ADMITTED TO EMERGENCY DEPARTMENT WITH HEAD TRAUMA

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Background and aim: Head trauma, mostly minor, is a common cause of emergency department visits in childhood. Some clinical decisions have been published in the last few years to help determine the need for CT (computed tomography) in these patients.

Methods: NEU Faculty of Medicine, Department of Emergency Medicine We retrospectively analyzed the information of pediatric patients with head trauma who had sufficient file information within a 6-month period. Out of 901 admissions, brain damage was detected in 21 patients after imaging.

Results: 901 patients were included in the study. 299 of the patients were female and 602 were male. 901 patients underwent non-contrast brain CT. The mean age of the patients who presented with head trauma and underwent brain CT was 8.58 years. Brain CT was performed in 464 patients on physician-family initiative and in 438 patients within the indication. Acute brain injury due to trauma was detected in 21 patients. Of the 21 brain injuries, 5 were imaged on physician-family initiative and 16 were imaged within the indication. Pathology was detected in 1.07% of patients who underwent imaging with physician-family initiative and in 3.65% of patients who underwent imaging within the indication. When we look at the literature, the rate of pathology detection in the images taken within the indication was 4.3% and 0.9% in the images taken with physician-family initiative.

Conclusions: Traumatic brain injury accounts for 70% of fatal childhood injuries. In the light of the information we obtained in our data review, acute pathology was not detected in most of the brain CTs performed with physician/family initiative. Even if the percentage of pathology detection is low in patients undergoing off-label CT scans, if the families of children who are recommended to undergo CT scans want to take the child home, it should be recommended that the family give written notification when leaving.

Keywords: BRAIN IMAGING IN PEDIATRIC PATIENTS



Ref No: 9040
Pub No: S-148

COMPARISON OF LACTATE APROCALCITONIN ELEVATIONS WITH BLOOD CULTURE GROWTH IN PATIENTS WITH SUSPECTED SEPSIS IN EMERGENCY DEPARTMENT

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Background and aim: For both sepsis and septic shock, intravenously antimicrobial therapy should be initiated as soon as possible after the diagnosis. Blood cultures, which are the gold standard in the diagnosis of bacteremia, should be obtained with the appropriate technique before antimicrobial treatment is initiated. Another strong recommendation is to taper antimicrobial therapy once the pathogen has been identified and sensitized or when clinical improvement is achieved. Since blood culture results take a long time, it is important to predict

Methods: This retrospective thesis study included patients who presented to the emergency department between November 01, 2020 and November 01, 2022, were older than 18 years of age, had a qSOFA score of 2 or higher, had blood cultures taken and were hospitalized

Results: There were 1165 patients who had blood cultures taken within two years, 87 patients with qSOFA score of $2 \geq$ who met the exclusion and inclusion criteria were included in the study. Of these patients, 45 (51.7%) were male and the mean age was 75.1 ± 15.1 years. Growth was observed in 55.2% of the cultures. There was no significant difference between the groups with and without culture growth in terms of age, gender and comorbidities ($p > 0.05$). Among these two groups, procalcitonin and lactate values among laboratory parameters were significantly higher in the group with culture growth ($p < 0.05$).

Conclusions: Since blood culture results take a long time, it is important to predict the causative agent in sepsis and initiate appropriate antimicrobial treatment. In our study, we found that procalcitonin and serum lactate levels were useful in predicting blood culture positivity and Gr (-) bacterial growth, but demographic findings, vital parameters and laboratory findings were not successful in predicting blood culture results.

Keywords: Blood Culture, qSOFA, Sepsis, Lactate, Procalcitonin



Ref No: 9050
Pub No: S-192

Assessing Bleeding in Patients: Evaluating the Role of Artificial Intelligence

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Background and aim: In the management of upper gastrointestinal(GI) bleeds, endoscopy plays a crucial role both diagnostically and therapeutically. The Glasgow Blatchford Score(GBS) is used to assess patients' need for endoscopy and is effective in identifying low-risk patients, although it has a high rate of false positives. We aim to use machine learning models to reduce unnecessary endoscopies in patients presenting to the emergency department(ED) with upper GI bleeding, thereby preventing the loss of resources and manpower through more accurate predictions with higher specificity.

Methods: Our study is retrospective, observational, cross-sectional, and analytical. Case group includes patients aged 18+ who presented to the ED with a preliminary diagnosis of upper GI bleeding and underwent endoscopy between January 1st, 2015, and August 1st, 2022. The goal is to determine the need for endoscopy in patients using machine learning models created with Python 3.9.0. Power analysis results indicated that a total of 1146 patients are required to detect a significant difference, and it was decided that 30% of these patients (343 cases), randomly selected, should be evaluated in an internal validation group, with machine learning modeling conducted on the remaining %70 (666 cases).

Results: When comparing the machine learning models we trained to detect patients with active bleeding - specifically the Gaussian Naive Bayes, Support Vector Machines(SVM), Random Forest(RF), and Logistic Regression(LR) models - with actual results, we identified a statistically significant relationship ($p=0.017$, $p<0.001$, $p<0.001$, $p<0.001$, respectively). However, between the K-Nearest Neighbor (KNN) machine learning model and the actual results, we did not find a statistically significant relationship ($p=0.241$).

Conclusions: From our active GI bleeding detection models, the high negative predictive values of the SVM, LR, and RF models indicate their success in correctly identifying patients without signs of active bleeding. We believe that models created with machine learning will detect cases of active GI bleeding.

Keywords: machine learning, endoscopy, artificial intelligence, upper gastrointestinal system bleeding, emergency medicine



Ref No: 9321

Pub No:

DETECTION OF ACUTE INTRACRANIAL PATHOLOGIES IN PATIENTS ADMITTED TO EMERGENCY DEPARTMENT WITH HEADACHE

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Ref No: 9414
Pub No: S-202

RETROSPECTIVE ANALYSIS OF 40 PNEUMOTHORAX CASES

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Background and aim: Pneumothorax is a critical emergency that can cause rapid mortality. Its role as a reversible cause of cardiac arrest highlights its importance. We retrospectively reviewed pneumothorax cases.

Methods: In our study, 40 adult patients with pneumothorax presented to our hospital between 2022-2023 were included. The cases were analyzed for age, sex, presence of trauma, trauma mechanism, associated injuries, comorbidities, hospitalization status, ICU requirement, and in-hospital mortality.

Results: The dataset comprised 40 cases. Of these, 65% (n=26) were spontaneous pneumothorax and 35% (n=14) were traumatic pneumothorax. The majority were male (n=37, 92.5%). The average age of the patients was 37.9 years. Except for 2 cases, all patients (95%) were hospitalized. Only a small proportion of cases (17.5%, n=7) required ICU care, and in-hospital mortality was observed in 7.5% (n=3) of cases. In traumatic pneumothorax cases, accompanying anatomical injuries included skin lacerations (15%, n=6), upper extremity injuries (12.5%, n=5), head and neck injuries (10%, n=4), facial injuries (7.5%, n=3), lower extremity injuries (5%, n=2), and pelvic injuries (2.5%, n=1). Trauma mechanisms comprised blunt trauma (25%, n=10), penetrating trauma (7.5%, n=3), and barotrauma in one case with a tracheostomy. Rib fractures were present in 20% (n=8) of traumatic pneumothorax cases, and hemothorax was detected in 5% (n=2) of the cases. The most frequently observed comorbidities were hypertension and lung cancer (n=3, 7.5%).

Conclusions: In patients with traumatic pneumothorax, the presence of additional injuries and high-energy trauma mechanisms, such as falls from height, increases the need for ICU and consequently raises in-hospital mortality. Pneumothorax secondary to clinical conditions like lung and laryngeal cancer also increases the need for ICU admission. Notably, our study found a significantly higher incidence of spontaneous pneumothorax in males. Overall, factors such as elderly, comorbidities, and severity of trauma are associated with higher rates of ICU admission and in-hospital mortality in pneumothorax cases.

Keywords: pneumothorax, spontaneous, trauma, ICU, lung cancer



Ref No: 9515
Pub No: S-191

Blood Pressure Variability in a Pig Model of Intracerebral Hemorrhage, Preliminary Study

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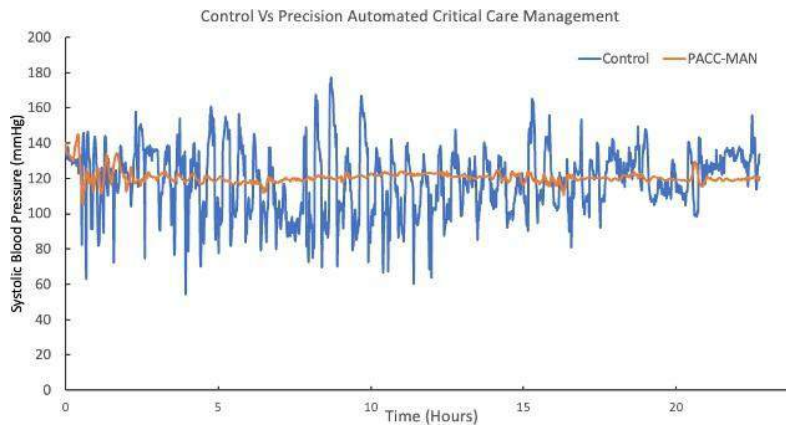
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Background and aim: There are limited therapies for patients suffering from an intracerebral hemorrhage (ICH). Multiple studies have demonstrated that blood pressure variability (BPV), the amount blood pressure fluctuates, is associated with worse outcomes in ICH patients. It is unknown if this is causative. We hypothesize that decreasing BPV through autonomous vasopressor management will reduce hemorrhage size and perihematoma edema in a pig model of ICH with BPV

Methods: Yorkshire swine weighing 50-55 kg were intubated and anesthetized. A burr hole was created in the skull. 900-1,350 units of collagenase were injected over 5 minutes 1 cm into the brain. An intracranial pressure (ICP) monitor was placed through the burr hole. Arterial and venous sheaths were placed in the femoral artery and vein. A REBOA balloon was inserted retrograde through the venous sheath into the proximal inferior vena cava. Cycling of inflation and deflation of the REBOA balloon changed venous return to cause blood pressure variability. Norepinephrine was titrated to maintain a systolic blood pressure (SBP) of 160 mmHg when the balloon was deflated. Inflation resulted in a SBP of 80-90 mmHg. The control group received 24 hours of BPV. The treatment group had an autonomous medication management system titrate vasopressors (clevidipine and phenylephrine) to overcome the BPV. After 24 hours, the pigs underwent MRI imaging of the brain prior to euthanasia.

Results: After injection of the collagenase, all pigs had an increase in ICP within 60 minutes. Control animals had a blood pressure of 119 $\pm$ 23 mmHg. Treatment animals had a blood pressure of 120 $\pm$ 3 mmHg. All animals had evidence of ICH with perihematoma edema on MRI imaging. The small sample size due to the pilot study did not allow for comparisons in hematoma size or extent of edema

Blood Pressure Graph



Conclusions: From this pilot study, we demonstrated that an automated medication management system is capable of decreasing BPV.

Keywords: Intracerebral Hemorrhage, Blood Pressure Variability



Ref No: 9517

Pub No: S-186

Evaluation of lactate clearance in patients admitted to the emergency department due to carbon monoxide poisoning.

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Background and aim: This study aimed to determine the blood lactate and lactate clearance (CL) levels of patients admitted to the emergency department with carbon monoxide (CO) poisoning and to determine the relationship between these levels, length of hospital stay, and treatment type.

Methods: This study was conducted as a retrospective study including patients admitted to the emergency department with CO poisoning between January 01, 2017 and March 1, 2024.

Results: The study included 169 patients. Patients with high blood lactate levels at admission had significantly longer hospital stays ($p=0.001$). Lactate levels >2.8 mmol/L were found to be predictive of hospital stays (AUC: 0.645, 95% CI: 0.567-0.717; 50.72% sensitivity, 76% specificity; $p<0.001$). Lactate levels were significantly higher in those receiving hyperbaric oxygen therapy (HBOT) ($p<0.001$). Lactate levels >2.8 mmol/L were found to be predictive of HBOT requirement (AUC: 0.705, 95% CI: 0.631-0.773; 63.89% sensitivity, 72.93% specificity; $p<0.0001$). The median CL levels of patients who received normobaric oxygen therapy (NBOT) and received HBOT were 35.29% (-50-89.06) and 35.28% (-31.58 -87.95), respectively, and CL was similar for both groups ($p: 0.596$). The median CL levels of patients with a hospital stay of ≤ 6 hours and >6 hours were 33.33% (-50-89.06) and 42.86% (-45-87.95), respectively, and no significant relationship was found between CL and length of hospital stay ($p: 0.051$).

Conclusions: While admission lactate levels are a usable parameter in clinical practice in predicting the length of hospital stay and determining the need for HBOT in patients with CO poisoning admitted to the emergency department, CL is useless.

Keywords: carbon monoxide poisoning, emergency department, lactate, lactate clearance, hyperbaric oxygen therapy



Ref No: 9599
Pub No: S-145

Preliminary study: A retrospective analysis of burn presentations in children under five years of age

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Background and aim: Burn injuries in children under five years old are a significant public health issue, with high morbidity and mortality rates. These injuries predominantly occur in domestic settings and are largely preventable. In Turkey, data on pediatric burns in this age group are limited. This study aims to analyze the demographic characteristics and etiological factors of burn injuries in children under five years old who presented to the Emergency Department of Muğla Training and Research Hospital. The goal is to provide insights that will help develop effective preventive strategies to reduce the incidence of these injuries.

Methods: This retrospective, single-center, observational study was conducted at the Emergency Department of Muğla Training and Research Hospital over a five-year period from July 1, 2019, to July 1, 2024. Data were collected from all pediatric patients aged five years and under who presented with burn injuries during this period. Comprehensive information on patient demographics, burn etiology, severity, and outcomes was extracted from medical records.

Results: The study included 329 pediatric patients, with 178 (54%) being male and 151 (46%) female. The mean age was 1.9 ± 1.1 years. Scald burns were the most frequent cause, accounting for 87.8% ($n = 289$) of cases. The upper extremities were the most frequently affected body parts, followed by the torso and lower extremities. The majority of burns were first- or second-degree, with only 1.5% ($n = 5$) being third-degree. The median Abbreviated Burn Severity Index (ABSI) score was 2.5 (range: 2–7), indicating a generally favorable prognosis. Approximately 47.1% ($n = 155$) of patients required hospitalization, and one mortality was reported.

Conclusions: The study confirms that male children are at higher risk for burn injuries, primarily from scalds. The findings highlight the need for targeted preventive measures and educational programs for caregivers to mitigate the risk of these preventable injuries.

Keywords: Burn, Children, Burn Severity Index



Ref No: 9712
Pub No: S-135

Emergency Department CT Scan Utilization and Findings in Geriatric Patients Presenting with Non-Traumatic Headache

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Background and aim: In geriatric patients, headache is a common reason for emergency department (ED) visits. Because secondary headaches are more common in geriatric patients than in younger patients, the former should be carefully excluded at presentation. In this study, we aimed to investigate the role of brain computed tomography (CT) in geriatric patients presenting to the ED with non-traumatic headache, the indications for imaging, the CT findings, and factors associated with detection of pathology.

Methods: Patients aged 65 years and older who presented to the ED with headache between January 1, 2023 and December 31, 2023, who underwent a brain CT scan, and who had complete data were included in the study. Patients with an intracranial mass, acute-subacute ischemic findings, intraparenchymal and subarachnoid hemorrhage, and cerebral edema on brain CT scan were considered as having significant pathology.

Results: The study included 384 patients. CT scan was normal in 61.2% of the patients and 10.4% had significant pathology. It was observed that 24.5% of the patients underwent CT scan for prolonged headache and 19.3% for severe headache. Logistic regression analysis showed that severe headache, loss of consciousness, anticoagulant use, neurological deficit, and elevated blood pressure at presentation were predictors of the detection of significant pathology on CT scan.

table 1

Gender, n (%)	253 (65.9)
Female	
Age, median (IQR ¹ , 25-75)	72 (68-79)
Comorbidities, n (%)	261 (68)
Hypertension	117 (30.5)
Diabetes mellitus	66 (17.2)
COPD ²	165 (43)
CAD ³	20 (5.2)

CKD ⁴	12 (3.1)
Malignancy	29 (7.6)
CVD ⁵	60 (15.6)
Other neurological diseases	
Diagnosed with primary headache	111 (28.9)
Migraine	6 (1.6)
GCS ⁶ , median (IQR,25-75)	15 (15-15)
Vital signs, median (IQR,25-75)	76 (72-85)
Heart rate	145 (135-160)
Systolic blood pressure	80 (73-89)
Diastolic blood pressure	36.1 (36.0-36.2)
Body temperature	
Patient outcome, n (%)	334 (87)
Discharged	50 (13)
Hospitalization	
Length of hospital stay, days	6 (4-7.2)

Demographic and clinical characteristics of the patients

tablo 2

CT findings	235 (61.2)
Normal	85 (22.1)
Atrophic changes	42 (11.7)
Encephalomalasic changes	26 (6.8)
Calcification	24 (6.3)
Acute-subacute ischemia	6 (1.6)

Intraparenchymal hemorrhage	5 (1.3)
Subarachnoid hemorrhage	4 (1)
Mass	3 (0.8)
Arachnoid cyst	2 (0.5)
Brain edema	
Significant pathology on CT	40 (10.4%)
Indications for CT scan	
Prolonged pain	94 (24.5)
Severe pain	74 (19.3)
Anticoagulant use	71 (18.5)
Vomiting	70 (18.2)
Dizziness	63 (16.4)
Syncope/loss of consciousness	40 (10.4)
Neurological deficit	29 (7.6)
Hypertensive encephalopathy	8 (2.1)
Fever	4 (1)
Reasons not found	12 (3.1)

The CT findings of the patients

Conclusions: In conclusion, 10.4% of geriatric patients presenting to the emergency department with headache have significant CT findings, and the impact of these findings on the emergency management of patients cannot be ignored. Incorporating these findings into clinical decision-making guidelines could improve the effectiveness of emergency management protocols by facilitating rapid and specific diagnostic interventions for geriatric patients presenting with headache.

Keywords: Brain CT, elderly, geriatric, headache



Ref No: 9751
Pub No: S-190

Malpractice Cases Related to Nephrolithiasis in Emergency Departments: An Analysis Based on Court of Cassation Rulings

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Background and aim: Medical malpractice is a significant concern in healthcare, requiring physicians to provide care according to medical standards. In malpractice cases, it must be proven that a physician's negligence caused harm. Urolithiasis is common in emergency departments, and diagnostic or treatment errors can result in lawsuits. This study examines nephrolithiasis-related malpractice cases in emergency departments based on Court of Cassation rulings, aiming to help physicians improve clinical practices and reduce malpractice cases within legal frameworks.

Methods: The Court of Cassation database was searched using keywords like "kidney stone," "ureter stone," "renal colic," "flank pain," and "emergency." Decisions were accessed anonymously and reviewed retrospectively until August 2024, evaluating their medical and legal characteristics. Ethical approval was not required as the data was publicly available.

Results: This study reviewed five medical malpractice cases evaluated by the Court of Cassation. Most cases involved general practitioners and centered on allegations of misdiagnosis or improper treatment. Although forensic evaluations identified errors in all cases, a definitive causal link between the error and patient harm was established in only one case. The local court rulings varied, with two acquittals, one conviction, and one rejected compensation claim. The Court of Cassation affirmed three rulings and reversed two, highlighting the significance of informed consent in medical practice.

Summary of Medical Malpractice Cases Evaluated by the Court of Cassation

Physician	Offense	Allegation of Medical Error	Explanation	Forensic Medical Opinion	Local Court Decision	Court of Cassation Ruling
General Practitioner	Negligent Homicide	Inappropriate Treatment	IM Dicloron, Anaphylaxis	Error found	Acquittal	

						Affirmed
General Practitioner	Negligent Homicide	Misdiagnosis	Gallbladder perforation	Error found		Reversed
General Surgeon	Negligent Homicide	Misdiagnosis	Rectal perforation	Error found	Acquittal	Affirmed
General Practitioner	Compensation	Inappropriate Treatment	IM Dicloron, Nerve damage	Error found		Reversed



					Rejected	
General Practitioner	Negligent Homicide	Misdiagnosis	Sepsis	Error found	Acquittal	Affirmed

Conclusions: These findings highlight the importance of accurate diagnosis and treatment in emergency settings, where specialized emergency physicians are crucial. Their expertise in managing acute conditions like kidney stones and sepsis reduces misdiagnosis and improves patient outcomes. This underscores the need for continuous improvement in diagnostic accuracy and care management to enhance patient safety. Additionally, obtaining informed consent remains a key legal and ethical requirement that can greatly influence malpractice case outcomes.

Keywords: malpractice, kidney stone, emergency, renal colic, court of cassation



Ref No: 9783

Pub No: S-208

Investigation of Treatment and Complications of Patients Presenting with Elevated INR Level

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Background and aim: Warfarin is commonly used for embolic prophylaxis, but overdose can cause life-threatening complications. This study examines the factors contributing to elevated INR levels in patients using warfarin, the complications arising during this process, and the treatments administered.

Methods: This study included 72 patients who presented to emergency department between September 1, 2022, and March 31, 2023, due to warfarin use and had an INR level above 5. Patients under 18, pregnant women, and those with bleeding disorders were excluded. The patients' age, gender, treatments applied, bleeding complications, control INR levels, causes accompanying warfarin overdose, hospitalization and discharge status, and hemogram and biochemistry values were analyzed.

Results: A total of 72 patients were included, with 62% (n=45) being female and an average age of 68.7 years. Bleeding-related complications occurred in 31 patients. Among those with complications, gastrointestinal bleeding was noted in 9 patients, hematuria in 7, soft tissue ecchymosis in 5, intracranial bleeding in 4, epistaxis in 3, and intramural hematoma in 2. Treatments included vitamin K for 14 patients, PCC for 7, fresh frozen plasma (FFP) along with vitamin K for 7, and FFP alone for 2. Reasons for warfarin overdose included acute renal failure in 11 patients, drug interactions in 4, and active infection in 2. The average INR level of the included patients was found to be 9.21. No statistically significant difference was detected between INR levels and the occurrence of complications or hospitalization/discharge status (p=0.941, p=0.27).

Table-1: Descriptive statistics

Laboratuary Parameter	Mean±SD
WBC(mm ³)	10.89 ±(4.66)
HB(g/dL)	10.63 ±(2.68)
HCT(%)	32.96 ±(7.62)
PLT(10 ³ /mm ³)	283.76 ±(85.21)
ALT(U/L)	72.76 ±(320.83)
AST(U/L)	143.34 ±(652.54)
BUN(mg/dL)	70.43± (56.78)
CREATININ(mg/dL)	1.48± (1.21)



Table-2: Relationship between INR level and development of complications and clinical outcome

	n (%)	INR (IQR)	p
Complication			
Yes	31	8.68 (5.08)	0.941
No	41	9.28 (5.13)	
Clinical Outcome			
Hospitalization	25	9.44 (4.80)	0.271
Discharge	47	8.09 (5.08)	
*Mann Whitney U testi			

Conclusions: Reasons that cause irregularities in INR levels in patients using warfarin include drug interactions, impaired kidney functions, and hypermetabolic states. Consequently, complications such as intracranial bleeding, epistaxis, hematuria, gastrointestinal bleeding and intramural hematomas may occur. Patients under treatment should be alerted about adherence, dose adjustments, and potential drug interactions. Clinicians should keep in mind that dose adjustments are necessary when renal failure is detected.

Keywords: warfarin overdose, bleeding, renal failure



Ref No: 9896
Pub No: S-198

Comparison of Carotid Artery Doppler Flow Time and Inferior Vena Cava İndeks Evaluation with Forrest Classification in Upper Gastrointestinal System Bleeding

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Background and aim: Upper gastrointestinal (GI) bleeding is a common and serious health problem encountered frequently in emergency departments, with high morbidity and mortality rates. Rapid and accurate intervention is crucial in the management of these bleedings. Sonographic measurements such as carotid artery Doppler flow time and inferior vena cava indeks are non-invasive methods that can be quickly applied in the emergency department to indicate hemodynamic instability. This study aims to evaluate the relationship between these sonographic measurements and the endoscopic Forrest classification, thereby providing an effective diagnostic and therapeutic approach in the management of upper GI bleeding.

Methods: Our study, initiated with the approval of the ethics committee, is prospective, cross-sectional, and analytical in nature. Our case group includes patients aged 18 and over who presented to the emergency department. The aim was to compare bedside ultrasound measurements of carotid Doppler flow time, inferior vena cava (IVC) diameter, and collapsibility indeks with endoscopy to identify patients with active bleeding and volume deficit.

Results: In our study, 78 patients were examined. The average age of the participants was 47.19 ± 20.36 years, with 71.8% being male. Carotid Flow Time and IVC İndeks in patients with active bleeding were found to be statistically significantly higher. In the ROC analysis, a Carotid Flow Time of <289 predicted the development of active bleeding with 80% sensitivity and 94% specificity. In the ROC analysis, an IVC İndeks of <0.24 predicted the development of active bleeding with 60% sensitivity and 86% specificity.

Conclusions: This study indicates that bedside ultrasound is effective in evaluating the volume status and active bleeding status of patients presenting to the emergency department with gastrointestinal bleeding. The IVC İndeks can be used in the diagnosis and treatment processes of gastrointestinal bleeding patients. The Carotid Flow Time value is suitable for use in the diagnosis and treatment process.

Keywords: Upper gastrointestinal system bleeding, endoscopy, Inferior Vena Cava Collapsibility İndeks, Carotid Flow Time



Ref No: 9918
Pub No: S-176

Treatment Management of Patients Diagnosed with Bladder Injury Secondary to Pelvic Fractures

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Background and aim: Extraperitoneal bladder rupture is often associated with pelvic trauma. While 83% of patients with bladder rupture have a pelvic fracture, bladder rupture is observed in more than 10% of patients with pelvic fracture. While most intraperitoneal bladder injuries are repaired surgically, extraperitoneal bladder injuries can also be treated non-surgically. In this study, we aimed to retrospectively evaluate the treatment approaches, clinical characteristics and follow-up of patients who developed bladder trauma due to pelvic fracture in our clinic.

Methods: As a result of the examinations performed at Erzurum City Hospital Emergency Service between January 2021 and January 2024, a total of 13 patients who developed extraperitoneal bladder trauma due to pelvic fracture were included in the study. Demographic and clinical characteristics of the patients, laboratory and radiological examinations, procedures performed, patient files, visit and operation notes of the patients who underwent surgical treatment, and patient discharge reports were evaluated retrospectively.

Results: 13 patients were included in the study. The average age of the patients was 45.7(±14.35) years. Pelvic fractures were detected in 9(69.2%) patients due to motor vehicle accidents and in 4(30.8%) patients due to falls. Macroscopic hematuria was present in 8 (61.5%) of the patients, and the bladder was palpable in 3(23%). There was pelvic fluid collection on abdominal computed tomography in 1 patient (7.6%). It was determined that 9(69.2%) of the patients received conservative treatment consisting of continuous bladder drainage and antibiotic prophylaxis, and 4(30.8%) received surgical intervention. It was stated that trauma caused pathology in the bladder neck in 1 patient.

Opaque material extravasation in cystography taken due to bladder rupture



Opaque substance extravasation in a patient who had a catheter inserted and cystography performed due to trauma

Conclusions: The majority of extraperitoneal bladder ruptures are associated with pelvic fracture. Macroscopic hematuria, suprapubic or abdominal pain, and difficulty urinating may occur. Bladder rupture resulting from pelvic fractures is rare; due to the high mortality rate, early recognition of signs and symptoms can be lifesaving.

Keywords: Trauma, Bladder, Hematuria



SUMMARY OF SPEECHS



Do We Need a Geriatric Emergency Department?

Prof.Dr.Nurşah BAŞOL

Worldwide, the elderly population ratio is 10% by 2021 and In Türkiye, it was 9.9% and increased to 10.2% in 2023. In USA, the number elderly population is expected to double to approximately 84 million by 2050. Throughout Europe, it is expected to rise 27% by 2040. Aging population, longevity and developments in medical care lead to growing number of people living with/without chronic life-limiting illnesses and it causes increased use of Emergency Departments. According to Turkish literature, the ratio of geriatric patients (GP) is 9-19% in all patients who admits to ER. They are mostly in 65-74 age groups. In my hospital, the ratio was 18,5% and mostly in 65-74 age group last year. Geriatric patients present to the ED with higher acuity and require more resources during their ED visits compared with younger adults. The length of stay in the ED is significantly longer by 20%. When it comes to hospitalization, They are nearly 7 times more likely to be admitted to the hospital and 5 times more likely to be admitted to the intensive care unit compared with younger patients. Older adults using ED have higher risk of hospitalization, longer hospital lengths of stay, repeat ED visits, functional decline, mortality, further complicating their care. They often present to the ED with atypical signs and symptoms of disease, multiple comorbidities, polypharmacy, geriatric syndromes (e.g., delirium, cognitive impairment, depression, and functional impairments), social needs (e.g., lack of social support). They lead to complications in diagnosis and management.

Despite increased levels of acuity, resource use, and higher need for hospitalization, nearly 20% of these patients present to the ED with a specific self-care problem, such as those related to cognitive and functional impairments or difficulties with activities of daily living. Many of these self-care issues are overlooked or otherwise not considered by ED clinicians who are focused on time-sensitive disease and injury because the traditional emergency model has been to focus on one problem per patient, whereas frail older adults sometimes require a more holistic approach. Each and every day, the typical ED provides care for patients of all ages. However, the patient flow and the actual physical design of the department have not kept pace with the special needs of an aging population. When an elderly patient with "impaired memory, reduced mobility and impaired social support presents to the ED, the system experiences crisis, slows down, and becomes inefficient.

ED focuses on time-sensitive disease and injury because Traditional Emergency Medicine Care (TEMC) has been to focus on one problem per patient, whereas frail GP sometimes require a more holistic approach. TEMC may not be well-equipped to address the complex care needs of GP. Few EDs have the required training, expertise, equipment, policies, and procedures in place to provide optimal care to GP, who require more time and resources in the ED.

Geriatric Emergency Medicine goals should address education, screening, and networking for a geriatric-friendly ED or a Geriatric Emergency Department (GED). Education is the core component of all geriatric emergency care. Screening involves identification of older patients by residence (living independently in the community, in a residential facility, or in a skilled nursing facility), condition (trauma, frailty, dementia), or risk (polypharmacy, neglect), and intervening with a comprehensive evaluation and follow-up plan. Networking identifies all resources, both in-house (case management, pharmacy, consultants) and in the community (visiting nurse services, meals on wheels). ACEP published first GEM guideline in 2014. It highlights six domains for quality improvement: staffing and administration, transitions of care, education of ED staff, quality improvement, equipment and supplies, and geriatric-specific policies and procedures. The subsequent endorsement of these guidelines by multiple emergency medicine organizations worldwide helped to accelerate the development of unique geriatric emergency care models and the more formal recognition of GEDs by health care systems.

Common features of GED are interdisciplinary staff trained in geriatric emergency medicine and nursing care, evidence-based protocols for geriatric care, physical modifications to accommodate older adults' functional limitations,



assessments to identify common geriatric syndromes and social determinants of health, care coordination with case managers and social workers to help with transitions out of care, referrals to care to address issues that are identified during the GED visit. The GED model of care has been shown to improve health outcomes, including decreasing risk of hospital admission and readmission, as well as reducing lengths of stay in the ED and hospital settings among GP. Geriatricians in the GED practice the “4Ms” that are essential to an age-friendly health system, as outlined by the Institute for Healthcare Improvement: what matters, in which older adult patients are asked what matters most, especially for end-of-life care, which is then shared with the entire care team; medication, in which the geriatrician makes a concerted effort to ensure that medications prescribed are age-friendly and appropriate, and that high-risk medications that could interfere with mobility or mentation are avoided; mentation, in which the geriatrician ensures that delirium is identified, treated, and managed; and mobility, in which the geriatrician screens for mobility limitations and ensures that the older patient is able to move safely and with good physical functioning. Education: Several studies have reported that ED professionals feel unconfident in dealing with complex older patients, which may be related to the underrepresentation of older patient care issues in the medical and nursing curricula. Furthermore, various reports have indicated that the majority of nurses caring for older populations have not received adequate geriatric education through formal or continuing programs. Fortunately, the need for more education and training in GEM is being increasingly recognized.

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Garlic and Hypertension: A Potential Link in Blood Pressure Management

Assist. Prof. Osman Sezer ÇINAROĞLU

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Hypertension, or high blood pressure, is a prominent global health challenge, affecting approximately 25% of the adult population and causing nearly 7 million deaths annually. Its widespread prevalence makes managing hypertension a public health priority, as uncontrolled blood pressure can lead to severe complications such as heart disease, stroke, and kidney damage. While antihypertensive drugs play a crucial role in treatment, their economic burden on healthcare systems and patients has sparked interest in alternative and complementary treatments. Garlic (*Allium sativum*), a traditional remedy known for its therapeutic properties, has emerged as a potential natural adjunct in hypertension management.

Garlic has been used for centuries in various cultures not only as a culinary ingredient but also as a therapeutic agent. Modern research has identified several compounds in garlic, such as allicin, which contribute to its health benefits. Allicin, an organosulfur compound formed when garlic is crushed or chopped, possesses both antibacterial and antioxidant properties. It is primarily this compound that is believed to exert an effect on blood pressure through mechanisms such as inhibiting angiotensin II, a hormone that narrows blood vessels and increases blood pressure. Additionally, other compounds in garlic, including phenolic and steroidal elements, provide vasodilatory effects, helping to relax blood vessels and improve blood flow.

The scientific evidence supporting garlic's role in blood pressure regulation is accumulating, with multiple studies and meta-analyses indicating that garlic supplementation can lower blood pressure. The antioxidant activity of allicin is thought to play a significant role, as oxidative stress is a contributing factor to hypertension. By reducing oxidative damage, garlic may indirectly alleviate high blood pressure. Furthermore, allicin has been shown to inhibit angiotensin-converting enzyme (ACE), mimicking the action of certain antihypertensive drugs. ACE inhibitors are commonly prescribed to control blood pressure, and garlic's natural ACE inhibition offers a potential non-pharmacological approach for individuals seeking complementary treatments.

Several animal and human studies support the efficacy of garlic in lowering both systolic and diastolic blood pressure. In studies involving hypertensive rats, garlic supplementation led to significant reductions in systolic blood pressure. Similar results have been observed in human clinical trials, where garlic supplementation consistently showed reductions in both systolic and diastolic blood pressure. While the antihypertensive mechanism of garlic is not entirely understood, these results suggest that it may reduce oxidative stress and lower blood pressure through ACE inhibition.

The potential clinical applications of garlic in hypertension management are promising, especially as a complementary treatment. Garlic supplements could be considered as an adjunct to conventional antihypertensive therapy, offering patients an additional tool for managing their blood pressure. However, more comprehensive research is required to fully understand the long-term effects and optimal dosing of garlic for hypertension.

In conclusion, garlic shows potential as a natural therapy in managing hypertension. With its primary compounds, particularly allicin, exerting beneficial effects such as ACE inhibition and antioxidant activity, garlic may aid in lowering blood pressure. While these findings are encouraging, further research is necessary to validate garlic's efficacy and safety in clinical settings.

Lower Extremity Nerve Blocks



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Introduction and Historical Background: Regional anesthesia for surgical procedures began in 1899 with Agust Bier using cocaine for intrathecal injections. The use of Doppler ultrasound for nerve blocks emerged in 1978, leading to a steady increase in the preference for regional blocks in surgery over the past three decades due to advantages like reduced postoperative pain and shorter hospital stays.

Why Use Peripheral Nerve Blocks (PNB)? PNBs provide effective analgesia with low-dose anesthetics, enabling early discharge and increased patient satisfaction. For emergency physicians, PNBs offer critical pain management for patients with altered mental states or those with contraindications for systemic analgesics.

Contraindications:

- Infected skin at the injection site
- Risk of compartment syndrome
- Patients on anticoagulant therapy or with bleeding disorders

Preparation and Equipment: Proper supplies, patient positioning, ambiance, and infection control are key. Ultrasound optimization and knowledge of nerve anatomy are essential for accurate block placement. Nerves are often located near arteries or between muscle layers and may have hyperechoic, hypoechoic, or honeycomb patterns on ultrasound.

Nerve Blocks for Lower Extremity:

1. **Fascia Iliaca Block:** Effective for pain control in hip and thigh injuries.
2. **Femoral Nerve Block:** Indicated for femur fractures and knee surgery, with local anesthetic spread near the femoral nerve.
3. **Saphenous/Adductor Canal Block:** Provides sensory block for the medial lower leg, often used with larger volumes for partial motor block.
4. **Popliteal Block:** Useful for Achilles tendon ruptures and foot injuries.
5. **Sciatic Nerve Block:** Can be performed with an anterior approach, offering extensive leg pain relief.

Complications and Toxicity of Local Anesthetics: Systemic toxicity may arise from high doses, rapid absorption, or accidental intravenous injection, manifesting as central nervous system symptoms (tinnitus, disorientation, seizures) or cardiovascular issues (hypotension, arrhythmias). Early recognition and management are essential, with close monitoring of heart rate, blood pressure, and oxygen saturation.

Management of Systemic Local Anesthetic Toxicity: Administer 20% lipid emulsion, monitor airway, provide oxygen, and be prepared for resuscitation. Consider vasopressors if needed, and maintain lipid infusion for at least 30 minutes in cases of persistent cardiovascular collapse.

Key Takeaways: Lower extremity nerve blocks are an evolving tool in emergency settings, providing effective pain relief without the risks of systemic analgesics. Consent is critical, and care must be taken to stay within the bounds of authority and training.

Conclusion: Lower extremity nerve blocks present a valuable addition to emergency pain management, enhancing patient care and operational efficiency in emergency medicine.



Key Highlights in Pediatric Advanced Life Support

Assoc. Prof. Dr. Umut Payza

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Introduction: Essential updates and best practices in Pediatric Advanced Life Support (PALS), focusing on AHA 2020 and ERC 2021 guidelines.

Top 10 Messages in PALS:

1. **High-Quality CPR:** Begin as early as possible, maintaining 100–120 compressions per minute at a depth of 4 cm for infants and 5 cm for children, allowing full chest recoil and minimizing interruptions.
2. **Ventilation Support:** Initiate rescue breathing if no respiratory effort is detected. Maintain SpO₂ between 94–98% and titrate oxygen as necessary.
3. **Early Epinephrine Administration:** For non-shockable rhythms, administering epinephrine early can significantly increase survival chances.

Medications in PALS:

- **Atropine** for bradycardia with high vagal tone.
- **Amiodarone** and **Lidocaine** for arrhythmias, with specific dosing recommendations.

Defibrillation: Proper paddle size and placement are crucial, with initial doses based on body weight. For children over eight, standard AED settings are used, while younger children require pediatric settings or manual defibrillation.

Airway Management: Options include bag-mask ventilation, endotracheal intubation, and emergency procedures like cricothyrotomy. Advanced airway techniques should be reserved for cases where indicated, with continuous monitoring of CO₂ levels and chest movement to confirm proper tube placement.

Fluid Resuscitation in Sepsis: Septic shock management should involve balanced crystalloid solutions, with frequent reassessment. Epinephrine or norepinephrine infusions are recommended if shock is resistant to fluids.

Post-ROSC Care: Post-resuscitation, survivors may need ongoing physical, cognitive, and emotional support, ideally coordinated through rehabilitation clinics and under neurological follow-up for at least a year.

Family Presence During Resuscitation: When feasible, family members should be allowed to be present. A designated team member should provide comfort, answer questions, and support the family. If presence impedes resuscitation, they may be respectfully asked to step out.

Conclusion: The latest guidelines in PALS emphasize high-quality CPR, early medication administration, and thoughtful airway and fluid management as critical to improving pediatric survival outcomes. Family involvement and ongoing care post-resuscitation are integral to patient-centered support.



Otomatik Tanı ve Teşhis Yardımcıları: Acil Tıp İçin Yapay Zeka Tabanlı Araçlar

Burcu Bayramoğlu

Sağlık Bilimleri Üniversitesi, Sancaktepe Şehit Prof. Dr. İlhan Varank Sağlık Uygulama ve Araştırma Merkezi Acil Tıp Kliniği

Yapay Zeka (YZ) bilgisayar sistemlerinin insan benzeri öğrenme, problem çözme ve karar verme yeteneklerini taklit etme yeteneğidir. İlk kullanımı 1950'lere kadar uzanır. 1966 yılında M.F. Collen tarafından yazılan "Computer medicine. Its application today and tomorrow" bilgisayar teknolojilerinin tıp alanında kullanımını belirten ilk yayınlar arasında yer aldı. 1960 ve 1970'li yıllarda tanı ve karar verme süreçleri ile ilgili çalışmalar yapılmaya devam edildi.

Yapay zeka Acil Tıpta triyaj, hasta verisi toplama/analiz etme, klinik durumlar ile ilgili tanı/ayırıcı tanı/klinik karar destek sistemleri, acil radyoloji/görüntü tanıma, EKO ve EKG bulgularını tespit etme, klinik sonuçların tahmini, tıp eğitimi, sağlık hizmetleri organizasyonu ve iyileştirmelerinde kullanılmaktadır.

Yapay zekanın kullanımı sırasında çeşitli çekinceler ortaya çıkmaktadır: hastalara ait kişisel verilerin korunması, yanlış pozitiflik ve negatiflikler, klinik hakkında karar vermede insan faktörünün aradan çekilmesi, klinik öngörünün geri plana çekilmesi, YZ kararlarından dolayı sorumluluk ve malpraktis

Bu sorunların azaltılması için klinik karar destek sistemleri için YZ'nin geliştirilmesi, test edilmesi, denetlenmesi ve güvenli bir şekilde kullanılmasını amaçlayan kural ve kılavuzları oluşturulması ve bu yönde önerilerde bulunulması, güvenli ve güvenilir sistemlerin inşa edilmesi, YZ destekli karar destek sistemleri için doğrulama, onaylama ve sertifikasyon süreçlerinin geliştirilmesi, ulusal düzeyde güvenlik izleme ve raporlama mekanizmasının sağlanması, uygun belgelerin ve son kullanıcı eğitiminin sağlanması gerekmektedir.

Sonuç olarak acil tıp için yapay zeka algoritmaları ile hastane öncesi yönlendirmeler ile hekimlerin iş yükünü azaltabilir, acil servis yoğunluğunun azaltılması için kullanılabilir, klinik tanı ve karar verme süreçlerine fayda sağlayabilir, yardımcı bir araç olarak hasta yönetimine dahil edilebilir.



MOJTABA CHARDOLI, IR

Chair, Treetop Hospital CME division Lot 10608, Dhumburi Magu, Hulhumale', 23000, Maldives

Summary for Congress Presentation: Point of Care Ultrasound in Shock Evaluation

In my presentation, I will discuss the application of point of care ultrasound (POCUS) in the evaluation of shock, focusing on the RUSH (Rapid Ultrasound for Shock and Hypotension) exam protocol. This widely used protocol employs the "pump, pipe, and tank" concept to differentiate various types of shock.

I will introduce the pneumonic HIMAP:

- H (Heart): Assessing left ventricular contractility, right ventricular strain, pericardial effusion, and tamponade.
- I (IVC): Evaluating the inferior vena cava for signs of hypovolemic shock (collapsed IVC) or obstructive/cardiogenic shock (plethoric IVC).
- M (Morrison's pouch): Searching for free abdominal fluid, which may indicate hemorrhagic shock from sources such as ruptured aneurysms or ectopic pregnancies.
- A (Aorta): Assessing the abdominal aorta for dissection or aneurysm.
- P (Pulmonary): Looking for signs of pneumothorax, which may cause obstructive shock or provide hints concerning other shock types.

Throughout the session, we will explore how to effectively implement this protocol and emphasize the importance of synthesizing multiple findings to accurately diagnose the underlying cause of shock, avoiding the pitfalls of premature conclusions based on isolated data points.



ECG in Difficult Diagnoses: Evidence-Based Opportunities

Assoc. Prof. Seda Dağar

Killer ECG patterns represent fatal diagnoses that should not to be missed. These can be categorized as occlusive and non-ischemic/non-occlusive versions.

Although current guidelines are based on ST elevation constituting acute coronary occlusion, relying solely on it and traditional STEMI criteria may lead to delays in reperfusion therapy and false negative activations. Approximately 25 out of every 100 patients who met the conventional STEMI criteria do not have acute coronary occlusion. Furthermore, total occlusion is observed in 25% of patients with NSTEMI in delayed angiography. Therefore, the other more subtle patterns not meeting traditional STEMI criteria have gained importance over time and the concepts of Occlusion Myocardial Infarction (OMI) and Non-Occlusion Myocardial Infarction (NOMI) have emerged. OMI represents near or complete occlusion with insufficient collateral circulation causing active infarction, while NOMI indicates the absence of occlusion or the presence of sufficient collateral circulation to prevent active infarction. There are a number of ECG patterns that can represent occlusion, these and the clinical features can be used to guide diagnosis and raise suspicion for an OMI. Clinicians have already been familiar with some of these such as Sgarbossa criteria, de Winter T waves, Wellens syndrome. However, new non-ST-segment elevation ECG patterns indicative of acute coronary occlusion are increasingly being described and awareness of the definition of OMI is also growing.

On the other hand, patients whose ECG is considered non-ischemic/non-occlusive but who are symptomatic, require cardiac monitoring to confirm the diagnosis and severity of the disease and further evaluation for other possible fatal cardiac and metabolic diseases. These NOMI diagnoses include hypertrophic cardiomyopathy (HCM), Wolff-Parkinson-White syndrome, massive pericardial effusion, arrhythmogenic right ventricular dysplasia (ARVD), severe hyperkalemia, poisoning with a sodium-channel blocking agent, raised intracranial pressure and Brugada syndrome.



Ağrıda Güncel Yaklaşımlar

Dr. Öğr. Üyesi Bilgehan DEMİR

Malatya Turgut Özal Üniversitesi Acil Tıp ABD

Ağrı zaman içinde değişen bir kavram olmuştur. Hippocrates (M.Ö. 5.yy) *Sedare dolorem opus divinum est* "ağrıyı dindirmek ilahi bir sanattır" der, İbn-i Sina (980-1037) "bedene zararlı olanı hissetmektir" der, Aristo (M.Ö. 384-322) "hazzın zıddı" demiştir.

Uluslararası Ağrı Araştırmaları Örgütü (IASP) göre ise;

Ağrıyı vücudun herhangi bir yerinden kaynaklanan, doku hasarına beraberinde olan duyuşsal ve emosyonel deneyim olarak tanımlamıştır.

Giriş:

Ağrı yaş, cinsiyet, meslekten ve öğrenim düzeyinden bağımsız olarak acil servislere en sık başvuru nedenidir. Literatürlere göre "Ağrı hastaların tıbbi tedavi aradıkları en yaygın nedenlerden birisidir ancak hâlâ sıklıkla yetersiz tedavi edilmektedir (1).

Ağrı; Subjektif olması, spesifik bir ölçü birimi olmaması, ağrı kontrolünün sınırları belli olmaması, ağrı algısı ve ağrıya yanıt kişiden kişiye değişmesi, hissedilen ağrı şiddeti ile gözlenen doku hasarı derecesi arasında korelasyon olmaması nedeni ile yönetimi zordur.

- The Royal College of Emergency Medicine Best Practice Guideline (haziran 2021) göre; Tanınması ve hafifletilmesi öncelik olmalıdır
- Ağrı 15 dk içinde çözümlenmeli
- İlk doz alındıktan sonra tekrar değerlendirilmeli
- Ağrının rutin değerlendirilmesi kayıt altına alınmalıdır
- Yılda bir kez ağrı yönetimi denetlenmelidir
- Hasta bakan personel ağrı yönetimi için eğitim yapılmalıdır.

Sağlık Kuruluşlarının Akreditasyonu üzerine Komisyon (*Joint Commission on Accreditation of Healthcare Organizations (JCAHO)*) göre ise; ağrı değerlendirmesinin ve ağrı skorlamasının dokümantasyonunun vital bulgularla birlikte yapılmasını önermektedir.



OLİGOANALJEZİ?

İlk kez 1989 yılında Wilson ve Pendleton tarafından kullanılmıştır.

Ağrı nedeniyle başvuran hastalara yetersiz analjezi uygulamasını tanımlamaktadır

Pratikte gecikmiş uygulama da bu kavramın içine alınmalıdır

Her ne kadar kullanılacak olan tedavi dozları hastadan hastaya değişse de komplikasyon korkusu tedaviden kaçmak için bir neden değildir.

Titre edilen dozlarda kullanılan analjezikler komplikasyon riskini artırmaz

Aksine tedavi edilmeyen ağrı morbiditeyi artırır.

“Birçok hekim tıp fakültesinden ağrı yönetimi veya analjezik kullanımı konusunda neredeyse hiç eğitim almadan mezun olmaktadır”(2).

Acil serviste ağrı tedavisi vermeye engel olan durumlar:

- Semptomları maskeleyeceği inancı
- Altta yatan hastalığı tedavi etmeye odaklanmak
- Opioid bağımlılığı ve güvenliği hakkında endişeler
- Ağrı yönetimiyle ilgili yetersiz eğitim
- İlaç etkinliği ve güvenliği hakkındaki endişeler

Ön yargılar ve kültürel engeller:

Çok sayıda uluslararası çalışma, hastanın etnik kökeninin acil serviste ne kadar hızlı ve ne tür bir ağrı kesici alacağını belirlemede rol oynadığını öne sürmektedir.

Olumlu ve olumsuz kişisel önyargılar, örneğin obez hastalar gibi diğer hasta gruplarına bakım verirken de kendini gösterebilir.

Ağrı Değerlendirmesi:

- a. İlk görev ağrının şiddetini belgelemek
- b. *Hekimlerin kanısı değil hastanın ağrısı subjektif bildirimi, ağrı değerlendirme ve tedavisinde temeldir*
- c. *Skalaların kullanımı sağlanmalı*

Sık kullanılan ağrı skalaları:



- Nümerik Derecelendirme Ölçeği (Numeric Rating Scale, NRS)
- Görsel Analog Skala (Visual Analog Scale, VAS)
- Nitel değerlendirme Ölçeği (Adjective Rating Scale)

Görsel (Visüel) Analog Skala: Acilde şu an için en kullanışlı skaladır.

Kullanım kolaylığı ve basit yapısı nedeniyle acil tıptaki araştırmalar da en yaygın kullanılan ağrı ölçüm araçlarından biridir.

Hasta ağrısı tahminen skala üzerinde işaretler

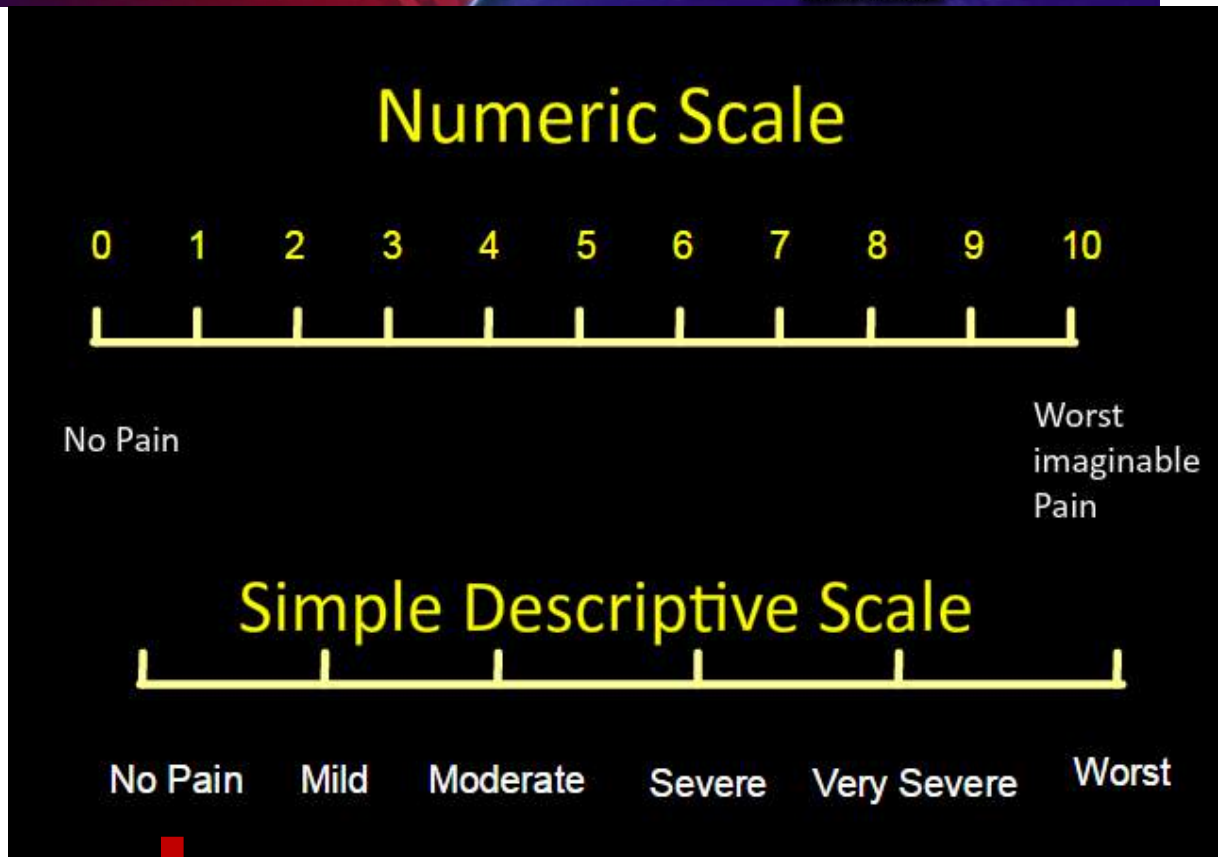
Ağrıda oluşan değişikliği anlamlı sayabilmek için ise skalada 30 mm'lik bir yer değişikliği gerekmektedir

Sayısal Değerlendirme Skalası: Hasta 0-10 arasında ağrısına bir değer verir.

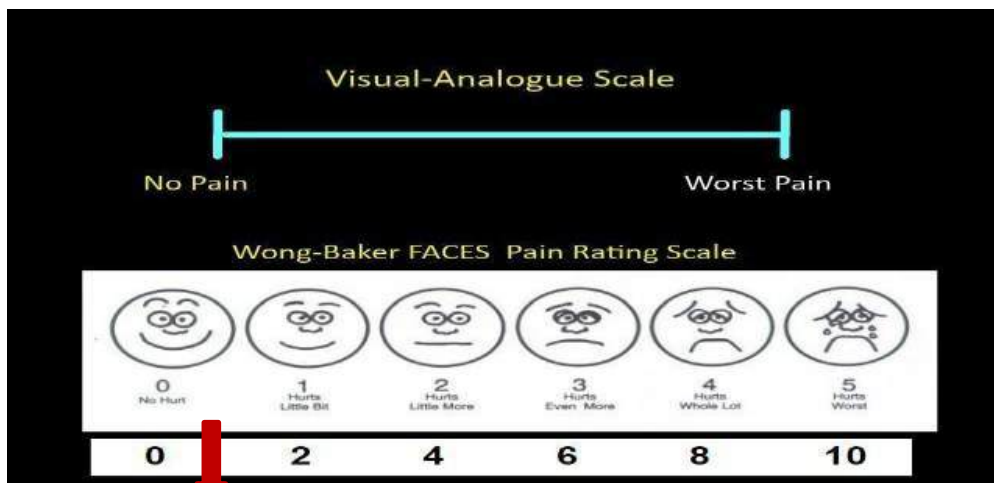
Biçimsel Değerlendirme Skalası: Skala üzerinde "ağrı yok" tan "olabilecek en kötü ağrı" ya kadar olan seviyeler mevcut.

Sözel Nicel Skala: En çok kullanılan sözlü ağrı skalasıdır.

Hasta tanımı olmayan ölçekte sözel olarak 1-10 arasında bir değer biçip ifade eder.



Yaşlı ve kognitif fonksiyonları hafif-orta düzeyde bozulmuş yaşlı hastalarda güvenilirdir





Çocuklarda (4 yaşa kadar genç) ve yetişkinlerde (özellikle farklı dillerde konuşan) kullanılabilir

Hastaya kendisini en iyi tanımlayan yüzü seçmesi istenir

Skalanın gerekliliği?

- Ağrının şiddetini saptamak
- Analjezik ajanın verilmesi ve seçilmesine kılavuzluk etmek
- Daha etkili analjezik ihtiyacı saptamak
- Ağrı cevabını tekrar değerlendirmek
- Tekrarlayan dozlar için ihtiyacı saptamak

Pediyatrik hastalarda ağrı?

- Ağrı yönetimi pediyatrik popülasyonda yeterince tedavi edilmemektedir
- Küçük veya iletişim kuramayan çocuklarda öz bildirim doğru bir şekilde güvenilemiyorsa, davranışa dayalı ölçümler gibi ek değerlendirme yaklaşımları kullanılabilir
- Fizyolojik parametrelerin ve bakıcılardan gelen raporların incelenmesi ağrı değerlendirmesini tamamlayabilir.
- Ağrı değerlendirme araçları, ağrıyı ölçmenin tek yöntemi olmamalıdır.

Çocuklarda uygun ağrı değerlendirme araçlarının seçimi yaş, bilişsel seviye, olası sakatlığın varlığı, ağrı türü ve ağrının meydana geldiği durumu dikkate almalıdır

Güvenilir olduğu kanıtlanmış bazı yaygın olarak kullanılan ağrı ölçüm yöntemleri vardır

Biyolojik ölçümler:

kalp ve solunum hızları, kan basıncı vb. gibi ağrının varlığıyla değişebilecek bazı fizyolojik parametreleri dikkate alır;

Gözlemsel ve davranışsal ölçümler: çocuğun ağrıya verdiği tepkiyi dikkate alır;

Öz bildirim ölçümleri:

Çocuğun ağrı deneyimine ilişkin açıklamasına dayanır.



Bebeklerde ve konuşamayan çocuklarda, öz bildirim ölçümleri mevcut değildir (motor tepkiler, seslendirme, yüz ifadeleri, ağlama ve uyku-uyanıklık örüntüleri gibi karmaşık davranışsal tepkiler) ile değerlendirilir.

Table 2. The Cheops Score - Minimum score: 4 (minimum pain); Maximum score: 13 (maximum pain).

Cry	No cry	+1
	Moaning	+2
	Crying	+3
	Scream	+4
Facial	Smiling	0
	Composed	+1
	Grimace	+2
Child verbal	Positive	0
	None	+1
	Other complaints	+1
	Pain complaints	+2
Torso	Both	+2
	Neutral	+1
	Shifting	+2
	Tense	+2
	Shivering	+2
	Upright	+2
	Restrained	+2
Touch	Not touching	+1
	Reach	+2
	Touch	+2
	Grab	+2
	Restrained	+2
Legs	Neutral	+1
	Kicking	+2
	Tensed	+2
	Standing	+2
	Restained	+2

Ontario Çocuk Hastanesi Ağrı Ölçeği (CHEOPS)

Yoğun bakım ve ameliyat sonrası ağrı ölçeği:

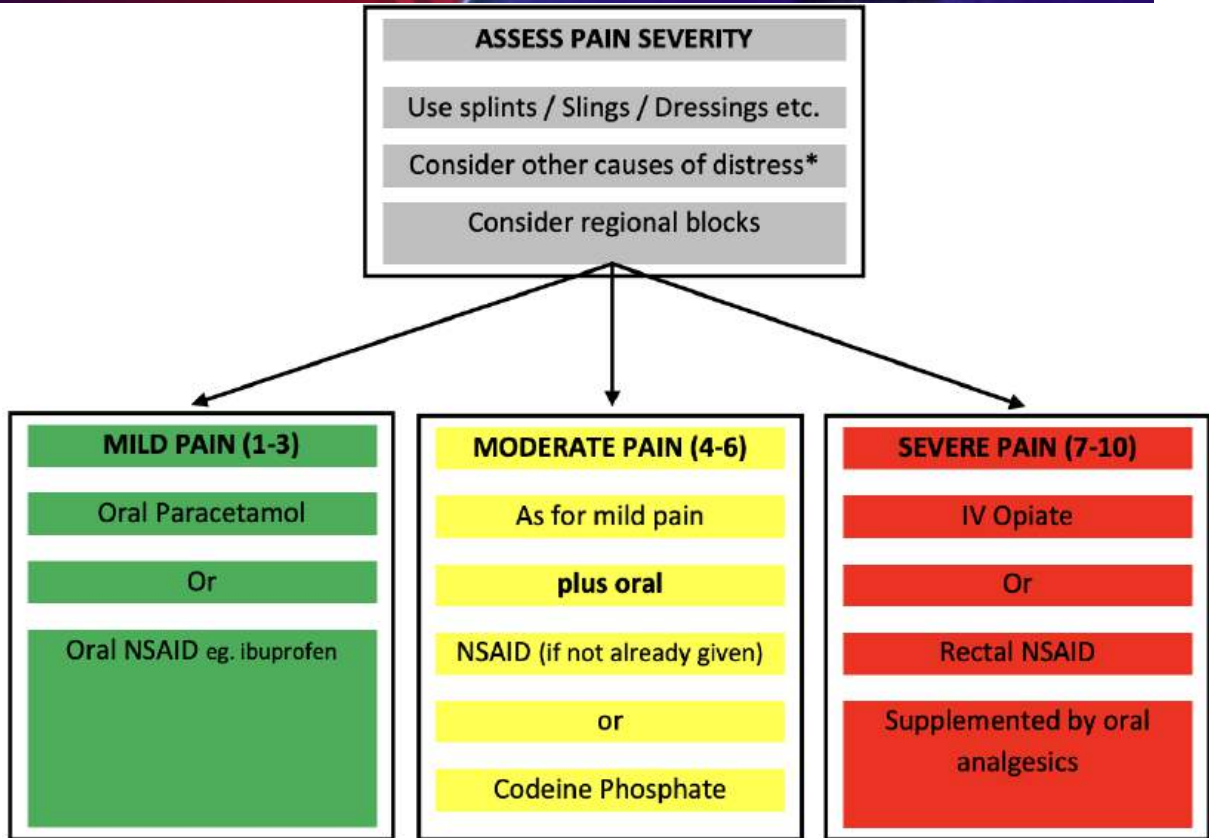
- Nesnel Ağrı Ölçeği ve Rahatlık Ölçeği gibi davranışsal ve biyolojik öğeleri birleştiren bileşik ağrı ölçümleri geliştirilmiştir
- Nesnel Ağrı Ölçeği, çocuklarda prosedürlerden ve/veya ameliyat sonrası müdahalelerden sonra ağrı veya rahatsızlık varlığıyla değiştirilebilecek hem fizyolojik parametreleri hem de davranışsal değişiklikleri değerlendirmek için kullanılır

Rahatlık Ölçeği, pediatrik yoğun bakım ünitesindeki sedasyon ve sıkıntı seviyesini değerlendirmek için kullanılır, ancak son çalışmalar bu ölçüm yöntemini prosedürel ve ameliyat sonrası ağrı da doğrulamıştır

	No Pain Pain score: 0	Mild Pain 1 - 3	Moderate Pain 4 - 6	Severe Pain 7 - 10
Initial Assessment	Within 15 mins of arrival	Within 15 mins of arrival	Within 15 mins of arrival	Within 15 mins of arrival
Re -evaluation	Within 60 mins of initial assessment	Within 60 mins of analgesia	Within 30 mins of analgesia	Within 15 mins of analgesia

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- Ağrının belgelenmesi esastır
- Yapılan ağrı kesici de not edilmelidir
- Şiddetli ağrısı olan hastalar, ilk analjezi dozunu aldıktan sonra 15 dakika içinde analjezinin etkinliği yeniden değerlendirilmelidir
- Orta şiddette ağrısı olan hastalara ilk değerlendirmede oral analjezi sunulmalıdır
- Orta şiddette ağrısı olan hastalara, ilk analjezi dozundan sonra 30 dakika içinde analjezinin etkinliği yeniden değerlendirilmelidir
- Konversiyonlar açısından dikkati olmak
- Hekimlerin kanısı değil hastanın ağrısı subjektif bildirimi, ağrı değerlendirme ve tedavisinde temeldir



*Other causes of distress include: fear of the unfamiliar environment, needle phobia, fear of injury severity etc.

Farmakolojik Ağrı Tedavisi?

- Akut ağrı yönetiminde sıralı yaklaşım kavramı
 - ağrı için düşük etkili ajanla başlama,
 - ağrı devam ediyorsa güçlü bir ajan ekleme yada değişiklik yapma anlamına gelir
- Akut ağrı yönetiminde sıralı yaklaşım gereksizdir
 - Daha uzun süre acı çekmeye maruz bırakır

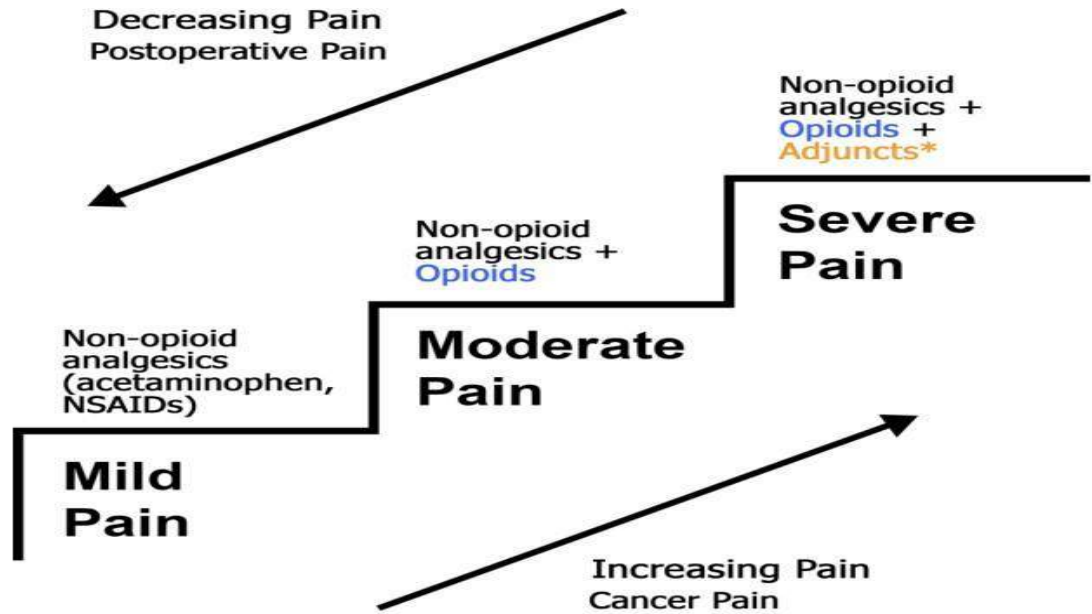


Fig. 1 The World Health Organization (WHO) pain ladder modified for Acute Pain Management. ^aAdjuncts include non-opioid analgesics such as ketamine, lidocaine, and gabapentinoids

bu merdivende analjeziklerin doğru kullanımı için 5 öneri savunulmaktadır:

- (1) mümkün olduğunca oral ilaç formunu kullanın
- (2) analjezikler düzenli aralıklarla verilmelidir
- (3) analjezikler, ağrı yoğunluğu ölçeği kullanılarak değerlendirilen ağrının şiddetine göre uygulanmalıdır
- (4) ilaç dozajı bireysel hastaya göre ayarlanmalıdır
- (5) ağrı ilaçlarının reçetelenmesi boyunca ayrıntılara dikkat edilmelidir.

Parasetamol:

- Yetişkinler için standart oral ve IV dozu 1 gram'dır ancak IV preparatı uygulanırken doz 50 kg'dan az ağırlıktaki hastalar için ayarlanmalıdır (yetişkinler 40-49 kg 750 mg, 35-39 kg 500 mg).
- IV yolu özellikle hastaların ağız yoluyla sıfıra indirilmesi gerektiğinde ve hızlı hafif-orta şiddette analjezi gerektiğinde faydalıdır
- Yetişkinlerde değişken ve yavaş emilim nedeniyle rektal preparat uygulanmasından kaçınılmalıdır

NSAID:



- İbuprofen 400 mg PO; diğer NSAID'lerden daha az yan etki, iyi analjezik ancak nispeten zayıf anti-inflamatuar özellikler.

- Naproksen 500 mg PO başlangıçta, ardından akut kas-iskelet sistemi bozukluklarında her 6-8 saatte bir 250 mg; ibuprofenden daha güçlü anti-inflamatuar özellikler; diğer NSAID'lere kıyasla nispeten daha az yan etki

- Diklofenak 50 mg PO, 100 mg PR; özellikle rektal yolla renal kolik ağrısının tedavisi için faydalıdır ancak son yıllarda trombotik olayların (MI dahil) ve Clostridium difficile riskinin artmasıyla ilgili endişeler ortaya çıkmıştır

Brokospazmda, peptik ülser, 3. trimester gebelikte kullanılmamalıdır

Kodein Fosfat

- oral ve IM preparatlar olarak mevcuttur. 30-60 mg tipik yetişkin dozlarıdır ancak yaşlılarda daha düşük dozları uygulanmalı
- Parasetamol ile birlikte reçete edilen kodein, tek başına reçete edildiğinde kodeinden önemli ölçüde daha etkilidir

Morfin

- oral, intravenöz ve intramüsküler preparatlar olarak mevcuttur (nispeten yavaş etki başlangıcı nedeniyle oral preparat, acil serviste akut ağrı kontrolü için önerilmez, ancak hasta zaten ilacı alıyorsa bu makul bir alternatif olabilir)
- 0,1-0,2 mg/kg IV morfin tipik bir yetişkin dozudur ancak istenen yanıtı sağlamak için titre edilmiş bir doz önerilir; yaşlılarda daha düşük dozları düşünülmeli

Ketamin:

- Yanıklarda, travmada ve hemodinamik olarak anstabil hastalarda kullanışlıdır
- Ciddi ağrıda opioidlerle kombine kullanılabilir
 - Analjezi için yükleme dozu 0.15-0.4 mg/kg 10 dak IV infüzyon
 - Ağrı kontrolü daha düşük opioid gereksinimi ile sonuçlanır

Entonox (nitroz oksid ve oksijenin %50'lik karışımıdır)

- Şiddetli ağrının kısa sürede hafifletilmesi ve kısa sürecek ağrılı prosedürlerin yapılması için son

derece yararlıdır

- Kafa yaralanması, göğüs yaralanması, şüpheli

barsak obstrüksiyonu, orta kulak hastalığı, erken gebelik ve B12 veya folik asit eksikliği olan hastalarda entonoks kullanımından kaçınılmalıdır

Travma:

- Fentanil hemodinami üzerine minimal etkileri nedeniyle tercih edilir



- Major travmalı hastalarda NSAIİ'lar verilmemelidir.

Migren Atak:

- Erken baş ağrısı rekürrensini önlemek için yardımcı tedavi olarak tek doz deksametazon (10 to 25 mg IV or IM) tavsiye edilmektedir
 - Oral prednison yararlı bulunmadı
- Ciddi migren atağı için nonopioid ajanlar ilk basamak tedavidir
 - Opioidler kullanılmamalıdır
 - Opioidlerle tedavi edilen hastalar ilk 7 gün içinde acil servise dönüşleri çok daha fazladır

Ciddi bulantı kusma varsa:

- Sumatriptan 6 mg subkutan + Antiemetikler/Dopamine reseptör blokerleri
 - Metoclopramide 10 mg intravenous (IV)
 - Prochlorperazine 10 mg IV veya intramuscular (IM)
 - Chlorpromazine 0.1 to 1 mg/kg IV
 - Akatizi ve distonik reaksiyonların önlenmesi için yanında difenhidramin (12,5-25 mg)
- Ketorolac 30 mg IV or 60 mg IM (NSAIID)

Renal Kolik:

- NSAID'lar taş hastalığının tedavisinde primer seçenek analjeziklerdir
 - IV yol daha etkili analjezi sağlar (ketorolac 30 mg IV)
- Metaklopramid: renal kolikte özellikle çalışılan tek anti-emetiktir
- Sublingual desmopressin lithiatik renal kolikte NSAIİ'lar kadar etkilidir(3)
 - Desmopressin üreteral basıncı ve ağrıyı azaltır
 - Direkt miyoreleksan etki gösterir
- Sublingual desmopressin ve NSAIİ kombinasyonu aditif analjezik etki sağlar

Hafif – orta şiddetli ağrılarda NSAIİ ve Parasetamol kombinasyonu:

- Ağrı tedavisinin etkinliği artar
- Ek doz ihtiyacı azalır



- Artmış güvenlik
- Şiddetli Ağrı ve Analjezi:
- Şiddetli ağrılarda opiat ile NSAID'in kombine kullanımı opiyat dozunda azalma ve
- Daha az yan etki ile sonuçlanır

Acil serviste etkili ağrı yönetiminin önündeki engeller

Genel kanı	Mevcut durum
Ağrı yönetimi, ED personelinin sorumlu tutulduğu kurumsal önceliklerden Acil serviste etkili ağrı yönetiminin önündeki engellerbiri olarak algılanmıyor	•4 saatlik bekleme süresi hedefi ve ambulans teslimi hedefi daha önemli olarak algılanıyor •Ağrı yönetimi hakkında çok az bireysel geri bildirim, mükemmel ağrı yönetimi kavramı AS'de nadiren tartışılıyor •Zayıf ağrı yönetimi performansı sorgulanmıyor bu da personelin ağrı yönetiminin iyi yapıldığına inanmasına yol açıyor •Ağrı puanının faydasına ilişkin bireysel personelin inancının sorgulanmaması
Ağrı Yönetimi ED eğitimi ve öğretimi içinde önceliklendirilmemiştir	•Personelin yerel veya ulusal rehberlik hakkında sınırlı bilgiye sahip olması •Personelin ağrı yönetimiyle ilgili kanıta dayalı bilgi yerine kişisel deneyime güvenmesi •Ağrı yönetiminin temel prensipleri hakkında tutarsız bilgi, örneğin morfinin tepe etkisi, ağrı merdiveni.
Ağrı yönetimin önceliği hakkında Düşük örgütsel öncelik Desteklenen kişisel inançlar	•Bir öncelik olarak algılanmaz - "acıdan ölemezsiniz" •Ağrı yönetimini iyileştirmede algılanan düşük kontrol seviyeleri - örn. personel eksikliği, kontrollü ilaçlar için iki tanık •Ağrı, personelin dikkatini çekmek için diğer birçok öncelik arasında rekabet eden tek önceliktir



ED süreçleri ve yapıları diğer ED önceliklerini etkinleştirerek ağrı Yönetimini engelleyebilir	•Birden fazla devir teslim •Diğer sorunlar arasında ağrı yönetimine odaklanmanın kaybolması, örneğin akış ve tanıya odaklanma •Engellere katkıda bulunan departman düzeni, örneğin ED içindeki analjeziklerin konumu, zayıf görünürlük, ED içindeki alanlar arasında iletişim zorluğu •Zayıf dokümantasyon, yeterlilikler dahil ED süreçleri
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Table: adapted from Sampson et al from UK

Çözüm:

- Ağrı yönetimi hastanın ilk karşılandığı yerde (genellikle triajda) başlamalı ve uygun zamanda doğru analjezik ilacın uygulanması ile sonlanmalıdır.
- Acil serviste ağrı yönetiminde ilk öncelik ağrıyı geçirmek olmalıdır.
- Acil serviste seçilecek efektif analjezik, ağrının şiddetine göre seçilir.
- Seçilen analjeziğin güvenilir olması, etkili ve kolay kullanılabilmesi gerekmektedir.
- Hafif ve orta ağrılarda NSAID grubu, Orta-şiddetli ağrılarda opioid grubu seçilmelidir.
- Renal ve bilier kolik gibi özel durumlarda parenteral NSAID ler ciddi ağrının önüne geçebildiği gibi bir opioidle kombinasyonu daha üstündür.
- İlave olarak bölgesel sinir blokajı da yararlıdır.

Diğer ağrı kontrolleri:

- Hastalar masaj, ısı kompresleri, buz paketleri, yeniden konumlandırma veya bazı fiziksel aktivitelerden (kısa bir süre için yürüme veya sandalyede oturma gibi) faydalanabilir.
- Bazı hastalar imgeleme veya gevşeme gibi bilişsel davranışçı stratejilerin yardımcı olduğunu görebilir.
- Pediatrik hastalarda hipnozun ağrıyı azaltmada etkili olduğu gösterilmiştir
- Kaygı, felaket senaryoları ve depresyonun bir hastanın ağrıyı nasıl deneyimlediğini etkileyebileceği ve akut ağrıyı daha da kötüleştirebileceği veya uzatabileceği belirlenmiştir



Kazanımlar ve sonuç:

- Ağrı yalnızca fiziksel bir faktör değildir ayrıca güçlü emosyonel komponenti mevcuttur
- Erken tedavi edilmezse daha da kötüleşir ve çeşitli patofizyolojik değişikliklere neden olur
- Ağrının erken tedavisi sonuçları iyileştirir

Hastanın çektiği acıyı dindirin..

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ORGAN BAĞIŞINDA ACİL TIP UZMANININ KRİTİK ROLÜ

Acil hekimlerinin başarısız bir resüsitasyon sonrası durumu hızla değerlendirip süreci dikkatle yönetmesi hayati önem taşımaktadır. Bu konuşmanın amacı, acil servis hekimlerinin organ bağıışı ve nakil süreçlerindeki rolünü vurgulamak, farkındalık ve duyarlılıklarını artırmaktır.

GİRİŞ

Organ nakli, vücutta işlevini kaybeden bir organın yerine, canlı bir vericiden ya da ölüden alınan sağlıklı bir organın nakledilmesi işlemidir. Son yıllarda organ nakli başarılarındaki artış, yalnızca cerrahi gelişmelere değil, immünosupresif tedavilerdeki ve ilaç seçeneklerindeki ilerlemelere de dayanmaktadır. Özellikle acil servislerde, tüm ayırıcı tanıları ve acil tedavi yöntemlerine rağmen, bazı hastalarda resüsitasyon sonrasında beyin ölümü gelişebilmektedir (1, 2). Gelişmiş ülkelerde organ gereksiniminin büyük bölümü kadavra donörlerden sağlanırken, Türkiye gibi gelişmekte olan ülkelerde en önemli sorunlardan biri yeterli sayıda kadaverik organ bağıışının yapılamamasıdır (1). Oysaki organ bağıışı, birçok yaşamı kurtarabilir ve insanlara daha kaliteli bir yaşam sunabilir. Dünya genelinde organ bağıışına olan ihtiyaç her geçen gün artmakta, Türkiye’de de organ bağıışının artırılması bekleyen hastaların yaşam kalitesini ve süresini önemli ölçüde iyileştirebilir (1). Bu konuşmanın amacı, beyin ölümü şüphesinin sık görüldüğü acil servislerde, acil tıp uzmanlarının organ bağıışındaki kritik rollerine dikkat çekmektir.

GENEL BİLGİLER

Acil tıp hekimlerinin süreçteki sorumluluğu büyüktür. Başarısız bir resüsitasyon sonrası beyin ölümü şüphesi ortaya çıktığında, acil hekiminin ilk olarak "Bu hasta başka insanların yaşamını nasıl kurtarabilir?" sorusunu sorması gerekir. Acil hekimi, bu bilinçle beyin ölümü sürecini aktif bir şekilde yönetmeli ve hastanın organ bağıışcısı olma isteğini sorgulamalıdır. Aynı zamanda, hasta yakınlarının duygusal olarak zorlandıkları bu anlarda organ bağıışına karşı tutumları da dikkatle değerlendirilerek süreç şeffaf ve doğru bir şekilde yürütülmelidir (2).

Beyin ölümü tanısının konulması, organ bağıışı sürecinin en önemli adımlarından biridir. Beyin ölümü, merkezi sinir sisteminin geri dönüşümsüz olarak işlevini kaybetmesiyle gerçekleşir ve tıbben ile hukuken somatik ölümle eşdeğerdir (3). Uyarılara yanıt vermeyen, quadriplejik, spontan solunumu olmayan ve refleksleri izlenemeyen hastalarda, ani hipernatremi ve idrar miktarında artış gözlemlendiğinde, beyin ölümü gelişimi düşünülmelidir (4).

Acil tıp uzmanları, acil serviste organ bağıışına yönelik ilk değerlendirmeyi yapan kişilerdir. Donörün uygunluğunu belirlemek ve beyin ölümü tanısını koymak gibi kritik görevleri vardır (3). Beyin ölümü tanısının doğrulanması için, ilgili uzmanlık dalları hızla sürece dahil edilmeli ve hastane organ nakli koordinatörü 24 saat boyunca ulaşılabilir olmalıdır (2). Türkiye’de organ nakline ilişkin yasal düzenlemeler 1979 yılında çıkarılan "Organ ve Doku Alınması, Aşılması ve Nakli Hakkındaki" 2238 sayılı kanun ile belirlenmiştir. Bu kanunun 2014’te yapılan değişiklikle, tıbbi ölümün gerçekleştiğine biri nörolog veya nöroşirürjiyen, biri anesteziyoloji veya yoğun bakım uzmanı olmak üzere iki hekim tarafından oy birliği ile karar verilmesi zorunlu hale getirilmiştir (3).



Acil tıp uzmanları, beyin ölümü gerçekleşmiş bir hastanın organlarını canlı tutmak için kılavuzlar doğrultusunda gerekli tıbbi müdahaleleri gerçekleştirmelidir. Uygun organ perfüzyonunu sağlamak ve hipotermiyi yönetmek gibi durumlar bu adımlar arasında yer alır (2).

Beyin ölümü tanısının süreci şu aşamaları içerir: beyin ölümü şüphesinin ortaya çıkması, ön hazırlıkların yapılması, kardinal bulguların değerlendirilmesi, bekleme süresi ve destekleyici testler (6). Acil tıp uzmanları ayrıca organ bağışının her aşamasında diğer sağlık profesyonelleri ile koordinasyon sağlamalıdır. Bu koordinasyon, organın sağlıklı bir şekilde toplanması ve nakil işlemi için kritik öneme sahiptir(5).

Organ bağışı konusunda yapılan eğitimlerin, organ nakli sayısı ile doğrudan ilişkili olduğu gösterilmiştir (3). Bu bağlamda, acil tıp uzmanlarının düzenli eğitimlere katılmaları ve organ bağışı sürecindeki rollerini daha iyi anlamaları gerekmektedir. Hem sağlık çalışanlarının hem de toplumun bu konuda bilinçlendirilmesi, organ bağışını teşvik edebilir ve sürecin etkinliğini artırabilir (3).

Organ bağışı sürecinde karşılaşılan zorluklar arasında beyin ölümü tanısındaki belirsizlikler, organın toplanması sırasında yaşanan teknik problemler, sağlık profesyonellerinin yetersiz bilgisi ve ailenin onay vermede zorlanması sayılabilir. Bu zorlukların aşılması için düzenli eğitim programları ve seminerler düzenlenebilir. Ayrıca, medya aracılığıyla organ bağışı bilinci artırılmalı ve sağlık kurumları arasında daha iyi bir koordinasyon sağlanmalıdır(6).

SONUÇ

Sonuç olarak, organ bağışı sürecinde beyin ölümü tanısı koymak, organların toplanması ve sağlık profesyonelleri ile koordinasyon sağlamak gibi kritik görevlerde acil tıp uzmanlarının rolü büyüktür. Gelecekte, organ bağışı sürecinin daha da iyileştirilmesi ve acil tıp uzmanlarının bu konudaki rollerinin daha iyi anlaşılması, daha fazla hayat kurtarma potansiyeli taşımaktadır. Bu konuda atılacak adımlar, sağlık sistemimizi güçlendirecektir.

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KAN TRANSFÜZYONUNUN AKUT KOMPLİKASYONLARI VE ACİL SERVİS YÖNETİMİ

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Giriş

Kan transfüzyonu, hematolojik ve kardiyovasküler destek gereksinimleri için vazgeçilmez bir tedavi yöntemidir. Ancak, transfüzyon işlemleri bazı riskleri de beraberinde getirir. Akut komplikasyonlar, transfüzyon işlemi sırasında veya hemen sonrasında ortaya çıkan, çeşitli derecelerde klinik belirtilerle seyreden reaksiyonlardır. Bu bölümde, akut hemolitik reaksiyonlar, febril non-hemolitik reaksiyonlar, transfüzyon ilişkili akut akciğer hasarı (TRALI), transfüzyon ilişkili dolaşım yüklenmesi (TACO), alerjik ve anafilaktik reaksiyonlar ile transfüzyon kaynaklı sepsis gibi başlıca akut transfüzyon komplikasyonları incelenecektir.

1. Akut Hemolitik Reaksiyonlar

Akut hemolitik transfüzyon reaksiyonları (AHTR), alıcı ve verici kan grupları arasında uyumsuzluk olduğunda gelişir ve genellikle ABO grubu uyumsuzluğuna bağlı olarak ortaya çıkar. Bu reaksiyonlar, antikorların transfüze edilen eritrositlere bağlanarak hemolize yol açması sonucu gelişir.

Patofizyoloji: AHTR'ler, alıcının immün sisteminin donör eritrositlerine karşı geliştirdiği antikorların kompleman sistemini aktive etmesi ile başlar. Bu süreç, eritrositlerin hızla parçalanmasına neden olur ve dolaşım sisteminde serbest hemoglobin birikimi gerçekleşir.

Klinik Özellikler ve Yönetim: Klinik olarak ateş, titreme, bel ve göğüs ağrısı, hipotansiyon, hemoglobinüri ve akut böbrek hasarı ile karakterizedir. Tanı, kan grubu uyumsuzluğu testleri ve idrar analizi ile doğrulanır. Tedavide transfüzyonun hemen durdurulması, destekleyici sıvı tedavisi ve böbrek fonksiyonlarının izlenmesi esastır.

2. Febril Non-Hemolitik Transfüzyon Reaksiyonları (FNHTR)

FNHTR'ler, özellikle lökosit içeren kan ürünlerinin transfüzyonu sonrasında sık görülen reaksiyonlardır ve çoğunlukla ateş ve titreme ile kendini gösterir. FNHTR, transfüzyon sonrası 1-2 saat içinde ortaya çıkar ve genellikle ciddi bir komplikasyon oluşturmaz.

Patofizyoloji: FNHTR'ler, kan ürünlerindeki lökositlerin parçalanması sonucu açığa çıkan sitokinler tarafından tetiklenir. Lökositten fakir kan ürünleri kullanımı, FNHTR riskini azaltmada etkilidir.

Tedavi: Reaksiyon genellikle kendiliğinden geçer; ancak şiddetli durumlarda antipiretikler kullanılabilir. Profilaktik olarak lökositten arındırılmış kan ürünleri kullanılması önerilir.



3. Transfüzyon İlişkili Akut Akciğer Hasarı (TRALI)

TRALI, hayatı tehdit edebilecek düzeyde ciddi bir akciğer hasarıdır. TRALI, transfüzyon sırasında ya da hemen sonrasında hipoksemi ve pulmoner ödem gelişimi ile karakterizedir ve kardiyojenik olmayan akciğer ödemi olarak tanımlanır.

Patofizyoloji: TRALI'nin patofizyolojisi iki aşamalı modelle açıklanır: İlk aşamada hastanın akciğerlerinde nötrofiller aktive edilir, ikinci aşamada ise transfüze edilen ürünlerdeki antikorlar bu aktive olmuş nötrofilleri hedef alarak pulmoner kapiller geçirgenliğin artmasına neden olur.

Tedavi ve Yönetim: TRALI tedavisinde destekleyici bakım önemlidir. Oksijen tedavisi, ciddi vakalarda mekanik ventilasyon gerekebilir. TRALI'nin önlenmesi için kadın donörlerden plazma kullanılmaması önerilmektedir.

4. Transfüzyon İlişkili Dolaşım Yüklenmesi (TACO)

TACO, transfüzyon sonrası artan dolaşım yüklenmesi nedeniyle gelişen bir komplikasyondur ve sıklıkla volüm fazlalığı nedeniyle akciğerlerde ödem meydana gelir.

Patofizyoloji ve Risk Faktörleri: TACO, genellikle büyük hacimli transfüzyonların hızlı uygulanması sonucunda ortaya çıkar. Yaşlı hastalar, kardiyovasküler hastalığı olanlar ve böbrek yetmezliği bulunan hastalar yüksek risk grubundadır.

Klinik Özellikler ve Tedavi: Klinik olarak taşikardi, hipertansiyon, dispne ve akciğer ödemi ile karakterizedir. Tedavi, transfüzyonun durdurulması, diüretik kullanımı ve oksijen desteği verilmesini içerir. Transfüzyon hızının yavaşlatılması ve hastanın dikkatli izlenmesi, TACO riskini azaltmada etkilidir.

5. Alerjik ve Anafilaktik Reaksiyonlar

Kan transfüzyonu sırasında alerjik ve anafilaktik reaksiyonlar gelişebilir. Hafif alerjik reaksiyonlar sık görülmekle birlikte, anafilaktik reaksiyonlar nadirdir ancak potansiyel olarak yaşamı tehdit edicidir.

Patofizyoloji: Alerjik reaksiyonlar, kan ürünlerinde bulunan yabancı proteinlere karşı alıcıda gelişen IgE aracılı reaksiyonlardır. Anafilaksi ise daha şiddetli bir immün yanıt sonucu ortaya çıkar.

Tedavi ve Yönetim: Hafif reaksiyonlar genellikle antihistaminik tedavi ile kontrol altına alınabilirken, anafilaksi gelişen hastalarda transfüzyonun durdurulması, adrenalin uygulaması ve acil destekleyici tedavi önemlidir.



6. Transfüzyon İlişkili Sepsis

Transfüzyon ilişkili sepsis, kontamine kan ürünlerinin transfüzyonu sonucu gelişen ciddi bir enfeksiyon durumudur. Genellikle gram negatif bakteriler ile kontaminasyon sonucu ortaya çıkar ve hızla sistemik bir enfeksiyona dönüşebilir.

Patofizyoloji ve Klinik Özellikler: Transfüzyon sırasında veya hemen sonrasında yüksek ateş, titreme, hipotansiyon ve septik şok belirtileri görülür. Tanı kan kültürü ile doğrulanır.

Tedavi: Transfüzyon ilişkili sepsisin tedavisinde geniş spektrumlu antibiyotikler ve destekleyici bakım gereklidir. Kan ürünlerinin saklanma koşullarının iyileştirilmesi ve titiz testler, sepsis riskini azaltmada etkilidir.

Sonuç

Kan transfüzyonlarının hayat kurtarıcı olduğu durumlar göz önünde bulundurulduğunda, transfüzyon sonrası akut komplikasyonlar konusunda bilgi sahibi olunması ve bu komplikasyonlara hızlı müdahale edilmesi hayati önem taşır. Akut hemolitik reaksiyonlardan TRALI ve TACO gibi pulmoner komplikasyonlara, alerjik reaksiyonlardan sepsise kadar geniş bir yelpazede değerlendirilmesi gereken komplikasyonlar vardır. Her bir komplikasyonun tanı, tedavi ve önlenmesi, transfüzyon güvenliğini artırmada önemli rol oynar. Transfüzyon sürecinde dikkatli hasta takibi ve uygun kan ürünlerinin seçimi, bu komplikasyonların önlenmesi için kritik öneme sahiptir.

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YAPAY ZEKA İLE HIZLI MÜDAHALE: ACİL DURUMLARDA OTOMATİK TANI SİSTEMLERİNİN GELECEĞİ VE ETKİSİ

Acil durumlarda doğru ve hızlı müdahale; kritik öneme sahiptir

Yapay zeka (AI) tabanlı otomatik tanı sistemleri, bu alanda yeni bir dönem başlatmakta, acil servislerdeki iş yükünü azaltarak klinik kararları desteklemekte

Tıpta yapay zekanın gelecekte daha geniş kapsamda kullanılması, hem hastaların sonuçlarını iyileştirecek hem de sağlık hizmetlerinde devrim yaratacak

Acil Durumlarda Yapay Zeka Destekli Müdahale:

Acil durumlar, özellikle zamanın kritik olduğu travma, inme, kalp krizi gibi vakalarda, dakikaların bile büyük fark yaratabileceği durumlardır. Geleneksel tanı süreçleri zaman alıcı olabilir, görüntüleme ve test sonuçlarının değerlendirilmesi, uzmanlık ve deneyim gerektirir. Yapay zeka, bu süreçlerde zaman kaybını en aza indirerek daha hızlı ve doğru tanıları koyulmasına yardımcı olur. Özellikle tıbbi görüntüleme, vital bulguların izlenmesi, laboratuvar sonuçlarının analizi gibi görevlerde AI'nin yetenekleri her geçen gün gelişmektedir.

Tıbbi Görüntüleme Analizinde Yapay Zeka:

Yapay zekanın acil serviste en çok çalışılan uygulamalarından biri radyoloji. Yüksek hassasiyete sahip bu gibi algoritmaların kullanılması en çok yoğun acil servislerde radyologların geri dönüşlerindeki gecikmelerin önüne geçilmesinde ve radyoloji desteği sınırlı olan küçük yerlerdeki acil servislerde faydalı olacaktır.

Vital Bulgular ve Erken Uyarı Sistemleri:

Yapay zeka destekli cihazlar, hastaların vital bulgularını gerçek zamanlı olarak izleyerek kritik değişiklikleri erken fark edebilir

sepsis riski taşıyan hastalarda AI, kalp hızı, tansiyon, oksijen satürasyonu gibi verileri analiz ederek, doktorları erken uyandırabilir

Elektrokardiyografi (EKG) Analizi:

MI

Yapay zeka tabanlı EKG analiz sistemleri, ritimdeki anormallikleri belirleyerek doktorlara uyarılar verebilir

AI'nin sunduğu bu hızlı teşhis, zamanında yapılan müdahalelerle hastaların hayatını kurtarma potansiyeline sahiptir

Hatta bir çalışmada 5 dk boyunca 12 derivasyonlu ekg analizi yapılmış ve olumsuz kardiyovasküler sonuçları tahmin etmek üzere hayati belirti ve verileri ieren bir algoritma yapılmış ve TIMİ skorlaması ile karşılaştırıldığında daha iyi sonuçlar elde edilmiş. 30 günlük mortaliteyi tahmin etmede de oldukça başarılı bulunmuş.

Otomatik Tanı Sistemlerinin Gelecekteki Etkisi

Gelecekte, AI destekli otomatik tanı sistemlerinin yaygınlaşmasıyla acil servislerde iş akışı büyük ölçüde dönüşecek. Günümüzde bu sistemler, doktorlara karar destek araçları olarak hizmet verirken, ilerleyen yıllarda yapay zekanın daha bağımsız bir rol üstlenmesi beklenmektedir.



Daha Hızlı ve Doğru Tanı Koyma:

Yapay zeka sistemleri, büyük veri kümelerini ve geçmiş hasta verilerini analiz ederek benzer vakalardaki en iyi tedavi yöntemlerini önerir hale gelecek

Bu sayede tanı süreci hızlanacak ve hatalar minimize edilecek

Doktorların, hastanın semptomları, görüntüleme sonuçları ve laboratuvar verileri gibi çok sayıda bilgiyi hızlıca işleyip değerlendirme zorunluluğu azalacak ve AI, bu süreci devralacak

Kişiselleştirilmiş Tedavi Yaklaşımları:

Yapay zeka sistemleri, her hastanın genetik yapısı, tıbbi geçmişi ve mevcut durumunu analiz ederek en uygun tedavi seçeneklerini sunma kapasitesine sahip olacak

Acil tıpta kişiye özel tedavi yaklaşımları, özellikle kronik hastalıklarla başvuran veya multipl sağlık sorunları olan hastalarda büyük faydalar sağlayabilir

Hasta Güvenliğini Artırma:

Otomatik tanı sistemleri, hata payını azaltarak hasta güvenliğini artıracak

Yapay zeka, sürekli ve tarafsız bir şekilde çalışarak olası hata risklerini minimuma indirecek

Özellikle travma veya multipl yaralanmaları olan karmaşık vakalarda büyük bir fark yaratacak

Otomatik tanı sistemleri, hata payını azaltarak hasta güvenliğini artıracaktır. Günümüzde doktorlar, yoğun iş temposu ve stres altında hata yapmaya açık olabilirler. Ancak yapay zeka, sürekli ve tarafsız bir şekilde çalışarak olası hata risklerini minimuma indirecek. Bu, özellikle travma veya çoklu yaralanmaları olan karmaşık vakalarda büyük bir fark yaratacaktır.

Triyaj Süreçlerinin Otomasyonu:

Acil servise başvuran hastaların triyaj sürecinin hızlandırılması, sağlık hizmetlerinin verimliliğini artıracak

Yapay zeka tabanlı triyaj sistemleri, hastaların semptomlarını ve vital bulgularını değerlendirerek hangi hastaların acil müdahale gerektirdiğini belirlecek

Yapay zekanın acil servisteki ana uygulamalarından biri de triyaj sistemleri. Etkili triyaj, hasta akışını, kalış sürelerini, kaynak tahsislerini ve risk sınıflandırmalarını önemli ölçüde düzenleyebilir. Yapılan bir çalışma makine öğrenmesine dayalı elektronik triyaj sistemlerinin seviye 3 hastaları daha doğru bir şekilde sınıflandırabildiğini göstermiştir

Yapay Zeka Destekli Karar Destek Sistemlerinin Yaygınlaşması:

Klinik karar destek sistemleri, yapay zekanın en büyük katkılarından biri

Gelecekte bu sistemler daha sofistike hale gelecek ve doktorların karşılaştığı her klinik durumda olası teşhisler ve tedavi seçenekleri sunacak

Zorluklar ve Sınırlamalar

Yapay zeka tabanlı otomatik tanı sistemlerinin sunduğu potansiyel büyük olsa da bazı zorluklar ve sınırlamalar da mevcuttur



AI sistemlerinin sağlık alanında yaygınlaşması için klinik doğruluğun artırılması

Etik sorunların çözüme kavuşturulması

Bu sistemlerin düzenleyici kurumlarca onaylanması gereklidir

Ayrıca, yapay zekanın tıbbi verileri analiz ederken kullandığı algoritmaların şeffaf ve açıklanabilir olması büyük önem taşıyor

Bu sistemlerin yaygın kullanıma geçmesi, doktorların eğitimlerinde yapay zeka ile çalışma konusunda yetkinlik kazanmalarını da gerektirir

Acil servis görüntüleme çalışmalarını gerçek zamanlı olarak raporlayan bir algoritma düşünün. Algoritma, kırık veya şüpheli lezyon gibi anormal bir bulguyu kaçırırsa, kim sorumlu tutulur? Acil servis doktoru, radyolog, algoritma geliştiricisi ve sağlık kurumu dahil olmak üzere taraflardan herhangi birinin veya tümünün sorumlu tutulabileceği ileri sürülebilir. Ayrıca, radyologların tüm çalışmaları zamanında incelemesini talep eden herhangi bir sistemde, iş akışı verimliliği feda edilecektir.

Yapay zeka tabanlı otomatik tanı sistemleri, acil tıpta devrim niteliğinde bir dönüşüm yaratıyor

Bu sistemler, tanı sürecini hızlandırarak hasta güvenliğini artıracak, kişiselleştirilmiş tedavi seçeneklerini mümkün kılacak ve acil durumlarda doğru müdahalenin zamanında yapılmasına olanak tanıyacaktır

Yapay zekanın acil tıpta yaygınlaşması, hem doktorların iş yükünü hafifletecek hem de hastaların sonuçlarını iyileştirecektir



Can the Use of Telemedicine Reduce Emergency Department Congestion?

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Emergency departments (EDs) worldwide are facing increasing patient volumes, resulting in overcrowding, prolonged waiting times, and strained healthcare resources. Telemedicine, defined as the remote diagnosis and treatment of patients through telecommunications technology, has emerged as a potential solution to alleviate this growing problem.

Telemedicine provides opportunities to reduce congestion by triaging patients before they physically arrive at the ED. Through virtual consultations, healthcare providers can assess the severity of a patient's condition, offering advice on whether an ED visit is necessary or if alternative care settings, such as primary care or urgent care clinics, are more appropriate. This pre-hospital triage system ensures that patients with non-urgent conditions avoid unnecessary trips to the ED, freeing up resources for critically ill patients.

Moreover, telemedicine can facilitate follow-up care for discharged patients, minimizing the likelihood of repeat ED visits. Post-discharge consultations can monitor recovery, adjust treatments, and address concerns remotely, reducing the need for patients to return to the ED for follow-up care.

In addition, telemedicine offers real-time specialist consultations, allowing emergency physicians to seek expert advice for complex cases without the delays associated with in-person consultations. This streamlined access to specialist input can enhance decision-making and expedite care, potentially reducing ED overcrowding caused by delayed referrals.

However, there are challenges to telemedicine's widespread implementation, such as ensuring reliable technology access for patients and maintaining high standards of care remotely. Regulatory and reimbursement issues also present barriers to its full integration into emergency medicine.

Despite these challenges, telemedicine offers significant potential in optimizing patient flow and enhancing care in the ED. With appropriate infrastructure and integration, it can become a valuable tool in managing ED congestion while maintaining patient safety and quality of care.



Peripheral Nerve Blocks with USG

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Introduction: Ultrasound-guided peripheral nerve blocks (USG-PNB) have become increasingly important in emergency medicine, providing rapid and effective analgesia in emergency settings. This technique offers significant advantages, including reduced opioid use and minimized side effects, making it a valuable tool for emergency physicians dealing with trauma, fractures, and soft tissue injuries.

Historical Background: The use of ultrasound in medicine dates back to the 1940s, with the application of Doppler USG for brachial plexus blocks emerging in the late 20th century. By the 1990s, ultrasound-guided peripheral nerve blocks had gained broader acceptance and use, including in Turkey.

Indications for USG-PNB: USG-PNB is widely used in emergency medicine for various applications:

- **Trauma and Injuries:** Pain management in fractures, dislocations, and soft tissue injuries.
- **Surgical Procedures:** Local anesthesia for laceration repairs and minor surgeries.
- **Postoperative Analgesia:** Pain control following emergency surgeries.
- **Foreign Body Removal:** Facilitates soft tissue foreign body extraction.

Ultrasound Imaging of Peripheral Nerves: Peripheral nerves appear as honeycomb structures with hypoechoic fascicles and hyperechoic epineurium in transverse view, while in longitudinal view, they present as parallel hypo- and hyperechoic lines. Surrounding structures such as arteries, veins, and muscles aid in identification.

Imaging Techniques and Needle Guidance: USG-PNB utilizes high-frequency linear probes with careful positioning, image optimization, and in-plane or out-of-plane needle guidance techniques. The in-plane technique allows continuous visualization of the needle, enhancing safety, while the out-of-plane technique is faster but less precise.

Procedure Overview: The USG-PNB procedure involves sterile preparation, positioning, nerve identification, needle insertion, anesthetic injection, and assessment of block efficacy. The anesthetic is injected extraneurally to create a "donut sign" around the nerve.

Advantages and Challenges:

- **Advantages:** Provides rapid and effective analgesia, reduces opioid use, offers minimal systemic effects, and enables earlier discharge.
- **Challenges:** Requires technical equipment, operator experience, and attention in patients using anticoagulants.

Common USG-PNB Techniques:

- **Tibial Nerve Block:** For foot injuries.
- **Digital Block:** For finger trauma.



- Greater Occipital Nerve (GON) Block: Used in migraine management.
- Intercostal Nerve Block: Applied before chest tube placement.

Future Perspectives: USG-PNB is expected to grow with advancements in ultrasound technology, including AI-assisted nerve identification and simulation-based training. Research into new local anesthetics and strategies for complication prevention is ongoing.

Conclusion: USG-PNB represents a promising tool in emergency medicine, enabling safer, efficient pain management with fewer complications.



ONUR KARABAY

Echocardiographic Manifestations in Myocardial Infarction

Echocardiography is instrumental in evaluating acute myocardial infarction (MI) by assessing regional and segmental ventricular function, guiding therapeutic decisions, and detecting complications such as mechanical disruptions and left ventricular thrombus. While not routinely employed for MI diagnosis, it serves as a supportive tool when symptoms or signs suggest MI but remain diagnostically uncertain.

Through the non-invasive imaging of myocardial dysfunction caused by ischemia or necrosis, echocardiography is highly sensitive in identifying regional wall motion abnormalities (RWMA), which often appear before ECG changes or symptom onset. The presence of RWMA typically indicates ischemia, although previous infarctions, myocarditis, or cardiomyopathy can also cause similar manifestations, limiting its specificity in MI diagnosis. Wall motion abnormalities are classified based on contraction behavior—hypokinesia (reduced movement), akinesia (absence of movement), and dyskinesia (opposite directional movement)—and reflect diminished myocardial thickening and radial endocardial motion, crucial indicators of impaired cardiac function.

Localization of Wall Motion Abnormalities in MI Localization of RWMA in echocardiography helps pinpoint the affected coronary artery:

1. Anteroapical MI – Linked to the left anterior descending (LAD) artery and involves the septum, apex, and anteroseptal wall. These abnormalities are most visible in parasternal long-axis and apical views, with aneurysm formation indicated by diastolic deformity.
2. Inferobasal MI – Typically results from right coronary artery occlusion, affecting the inferobasal or diaphragmatic walls while sparing the apex.
3. Lateral Wall Infarction – Occurs with left circumflex artery obstruction, impacting the free wall and often involving multi-segmental areas.
4. Right Ventricular Infarction – Arises from proximal right coronary artery occlusion, affecting the right ventricle.

Detection of Post-MI Complications Echocardiography aids in identifying mechanical complications, including ventricular septal defects, papillary muscle rupture or displacement, free wall rupture, and tricuspid regurgitation, as well as the presence of left ventricular thrombus, critical for subsequent management.

Prognostic and Therapeutic Guidance Echocardiographic evaluation soon after MI provides essential prognostic insights and informs therapy, particularly influencing recommendations for beta blockers and ACE inhibitors based on left ventricular ejection fraction (LVEF) values.



GÖKHAN KAYA

Elder neglect and abuse in geriatric patients: an emergency medicine perspective

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Background:

Aging leads to a continuous decline in physiological capabilities, increasing the risks of dependency, chronic diseases, and accidents. Elder neglect and abuse are serious, often underreported issues, particularly in dependent individuals. The global rise in elderly populations, expected to reach 2 billion by 2050, underscores the need for healthcare systems to address these concerns.

Objective:

This study reviews elder neglect and abuse cases, focusing on identifying risk factors and establishing effective recognition methods in emergency departments (ED). Special attention is given to the challenges faced by healthcare professionals in diagnosing these cases.

Methods:

A review of current literature and ED cases is conducted, with an emphasis on the World Health Organization's definitions and classifications of elder abuse. Various forms of abuse, including physical, sexual, emotional, and financial, as well as neglect, are discussed. Key risk factors such as advanced age, dependency, isolation, and cognitive impairment are highlighted. Tools like the Elder Abuse Suspicion Index (EASI) and other screening protocols used in EDs are reviewed.

Results:

Elder abuse is frequently underreported, often due to the victim's fear of further harm, dependency on the abuser, or cognitive impairment. Healthcare professionals often lack training to identify abuse, and physical signs such as bruises or malnutrition are attributed to aging-related conditions.

Conclusion:

Increased awareness, training, and standardized screening tools in emergency settings are essential for the early detection of elder abuse and neglect. Proactive measures in EDs can significantly improve the protection of vulnerable elderly patients.

Keywords: Elder abuse, neglect, emergency medicine, geriatric patients, risk factors, screening tools



Thoracotomy and Chest Tube

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Thoracotomy: Thoracotomy may be required for cases involving cardiac arrest due to blunt or penetrating trauma, cardiac tamponade, and intrathoracic bleeding. Key considerations include assessing the patient's vital signs and evaluating factors like the nature and location of the injury.

Thoracostomy Tube Application: The procedure involves inserting a tube into the pleural space to drain abnormal air or fluid and connecting it to an underwater drainage system. Indications include trauma, pneumothorax, tension pneumothorax, hemothorax, pleural effusion, and others.

Diagnosis: Symptoms commonly include chest pain and shortness of breath, with diagnostic tools such as lung auscultation, chest X-ray, and CT scans.

Anatomy and Ideal Site: The ideal site is the mid-axillary line at the 4th or 5th intercostal space.

Required Equipment: Includes a scalpel, chest tube (size varies by patient), drainage system, and suture materials.

Procedure Steps:

1. Prep the area with antiseptic, provide local anesthesia, and make an incision parallel to the ribs.
2. Use blunt dissection to reach the pleura, create an opening, insert the tube, and secure it.
3. Verify placement with imaging.

Potential Complications: Include organ laceration, infection, tube misplacement, mechanical issues, and vessel injury.



EMİNE SARCAN

Dialysis in Methanol Poisoning: Continuous or Intermittent?

Methanol poisoning leads to the accumulation of toxic metabolites such as formaldehyde and formic acid in the body, causing severe metabolic acidosis, optic nerve damage, and organ failure. The goal of treatment is to rapidly remove the toxins and correct the acidosis. In this context, dialysis plays a key role in eliminating methanol and its toxic metabolites from the body. In current literature, there is ongoing debate between continuous renal replacement therapy (CRRT) and intermittent hemodialysis (IHD) for these cases. Both methods have their advantages and disadvantages, making patient-specific decision-making crucial.

CRRT is preferred, especially in hemodynamically unstable patients. It has been reported that CRRT provides a slower but continuous elimination of toxic metabolites while offering a more stable hemodynamic profile in patients (1). This method is effective in eliminating methanol and formic acid and is particularly favored in critically ill intensive care patients. However, since CRRT requires a longer duration, it may be a more feasible option in resource-rich centers.

IHD provides rapid, high-dose toxin elimination in a short time. Studies have shown that IHD corrects severe acidosis more quickly due to the rapid elimination of methanol and its toxic metabolites (2). It may be particularly effective in cases of high-dose methanol ingestion in the early stages. Additionally, since IHD infrastructure is more widely available, it can be more easily accessed in many hospitals. The ability to perform repeated sessions is also a significant advantage. However, there is a higher risk of hemodynamic fluctuations and hypotension during the procedure.

Current Clinical Practices: The EXTRIP (Extracorporeal Treatments in Poisoning) guidelines indicate that both dialysis methods are effective in managing methanol poisoning (3). However, recent studies support CRRT as a safer and more effective option in hemodynamically unstable patients. On the other hand, IHD may be preferred in hemodynamically stable patients due to its faster toxin clearance (5).

Conclusion: The choice of dialysis method in methanol poisoning depends on the patient's clinical condition and hemodynamic stability. Intermittent hemodialysis is ideal for rapid toxin elimination, while continuous dialysis should be preferred in patients with hemodynamic instability. Current literature emphasizes that both methods are successful in appropriate patients and that an individualized approach based on the patient's clinical status is required.

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GEÇ ENTÜBASYON MU? ERKEN ENTÜBASYON MU?

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Kritik hasta bakımında öncelikli sorun; Havayolu açıklığının, oksijenizasyonun ve ventilasyonun devamlılığının sağlanmasıdır. Acil tıp hekiminin birincil önceliği hava yolu, solunum ve dolaşım fonksiyonları bozuk olan ya da bozulma olasılığı olan hastaları tespit etmek ve bu hastaların güvenliği için gerekli tedbirleri almak olmalıdır. Zamanında yapılan havayolu yönetimi hayat ile ölüm arasındaki ince bir çizgidir. Endotrakeal entübasyon solunum yolunun korunmasının, kalıcı hava yolunun sağlanmasının, oksijenizasyonun, ventilasyonun sağlanmasının ve aktif aspirasyonun önlenmesinin en kalıcı yöntemidir. Erken entübasyon hastanın klinik durumu kötüleşmeden, erken evrede hastaya entübasyon yapılmasıdır. Erken yapılan entübasyonun avantajları; hızlı kontrol sağlanması, kritik hastalarda solunum komplikasyonlarının önlenmesi ve erken müdahale şansıdır. Dezavantajları; gereksiz entübasyon riski, uzun ventilasyon süresi ve ventilatör ilişkili komplikasyonlardır. Geç entübasyon hastanın klinik durumu belirgin şekilde kötüleşene kadar entübasyonun ertelenmesidir. Geç yapılan entübasyonun avantajları; hastanın kendi solunum yetisinin korunması, invaziv girişimlerden kaçınmadır. Dezavantajları; ani solunum yetmezliği riski, entübasyonun acil ve karmaşık hale gelmesi ve mortalite artışı riskidir. Erken ve geç entübasyon arasındaki seçim, hastanın klinik durumuna ve doktorun kararına bağlıdır. Erken entübasyon, riskli hastalarda tercih edilebilir, ancak hastanın stabilize olması durumunda geç entübasyon da bir seçenek olabilir. Her iki yöntemin de avantaj ve dezavantajlarını göz önünde bulundurarak bireyselleştirilmiş bir yaklaşım izlenmelidir. Entübasyon kararının zamanında verilmesi, hastanın hayatta kalma şansını artırır ve komplikasyon risklerini azaltır. Kritik hastanın hava yolu ve hemodinamik durumuna özel dikkat gösterilerek odaklanmış ve hızlı bir değerlendirme son derece önemlidir. Kritik hastalarda entübasyonun en uygun zamanı, hastanın solunum yetmezliğinin ciddiyeti ve müdahale gerektiren klinik durumlarıyla ilişkilidir.



UZMAN DR. MERVE UNUTMAZ

The Carboxyhemoglobin level correlates with symptoms in CO poisoning

Karbon monoksit (CO), hidrokarbon yanmasıyla oluşan kokusuz, tatsız, renksiz, tahriş edici olmayan bir gazdır. CO'nun atmosfer konsantrasyonu genellikle %0,001'in altındadır, ancak şehirlerde veya kapalı ortamlarda daha yüksek olabilir. CO, oksijenden çok daha fazla afiniteyle hemoglobine bağlanarak karboksihemoglobin (COHb) oluşturur ve oksijen taşınması ve kullanımında bozulmaya neden olur. (1)

CO'nun potansiyel kaynakları, yangınlardan kaynaklanan duman solunması, uygun şekilde havalandırılmayan otomobiller, gazlı ısıtıcılar, fırınlar, sıcak su ısıtıcıları, odun veya kömür sobaları ve gazyağı ısıtıcıları, kamp sobaları, benzinle çalışan elektrik jeneratörleri(2,3)

Nargile kullanımı (4) gibi günlük hayatta birçok yerde karşılaşılabilecek kaynaklardır.

CO zehirlenmelerinde klinikte nonspesifik semptomlar görülür ve her semptom her zaman rastlanmayabilir.

- %10-20 seviyelerine gelindiğinde baş ağrısı ve mide bulantısı başlayabilir.
- %20'nin üzerindeki düzeylerde genellikle belirsiz baş dönmesi, yaygın güçsüzlük, konsantrasyon güçlüğü ve yargılama bozukluğu görülür.
- %30'un üzerindeki düzeyler genellikle efor sırasında dispneye, göğüs ağrısına (koroner arter hastalığı olan hastalarda) ve konfüzyona neden olur.
- Yüksek seviyeleri bayılma, nöbet ve uyuşukluğa neden olabilir. (5)

Genellikle düzeyler %60'ın üzerinde olduğunda hipotansiyon, koma, solunum yetmezliği ve ölüm görülebilir.

Hastalarda ayrıca görme bozuklukları, karın ağrısı ve fokal nörolojik bozukluklar gibi birçok başka semptom da olabilir. Zehirlenme şiddetliyse, nöropsikiyatrik semptomlar ve belirtiler (örneğin, bunama, psikoz, parkinsonizm, kore, amnestik sendromlar) maruziyetten günler veya haftalar sonra gelişebilir ve kalıcı hale gelebilir.

Karboksihemoglobin düzeyi bu semptomlarla her zaman korele olmayabilir.

Karboksihemoglobin düzeylerinin örneğin miyokard hasarı üzerindeki etkileriyle korele olduğu gösterilen çalışmalar mevcutken (6) karboksihemoglobin düzeyi düşük olan, düşük maruziyetli zehirlenmelerde ciddi nörolojik bozuklukların görüldüğü çalışmalar mevcuttur. (7)

CO zehirlenmesi tanısı koymak için COHb ölçümü gereklidir ancak düzeyler zehirlenme derecesiyle ilişkili olmayabilir. CO vücutta hızla pulmoner eliminasyon ile azalır. Ölçüm zamanındaki düzey ile etkilenim zamanındaki COHb düzeyi farklı olabilir. CO maruziyeti doğrulanmış geçici bilinç kaybı yaşayan hastalar, COHb düzeyleri maruziyetin gerçekleştiği zamanki düzeyi göstermese bile hiperbarik oksijen tedavisinden (HBO) yine de faydalanabilir.

Majör semptomlarla (örneğin bilinç kaybı, değişen mental durum, kardiyak iskemisi) ilişkili anormal derecede yüksek COHb düzeyleri ciddi zehirlenme olarak değerlendirilmelidir. Hasta semptomları ve belirtileri yönetimi yönlendirir, COHb düzeyi değil. (8)



COhb seviyesi kaynak ortadan kaldırıldığında hızla düşer. Bu yüzden COhb seviyeleri CO zehirlenmelerinin bir biyobelirteci olarak kullanılır fakat maruziyet ciddiyeti ve doku hasarı derecesini göstermede güvenilir olmayan bir biyobelirteçtir.

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ACİL SERVİSTE KADIN SAĞLIK ÇALIŞANLARINA YÖNELİK ŞİDDET

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Kadın sağlık çalışanlarına yönelik şiddet, özellikle acil servislerde, dünya genelinde önemli bir sorun olarak öne çıkmaktadır. Bu konuda yapılan araştırmalar, kadın sağlık çalışanlarının hem hastalardan hem de çalışma arkadaşlarından gelen şiddete daha sık maruz kaldığını göstermektedir.

Kadın sağlık çalışanlarının acil servislerde karşılaştığı şiddetin toplumsal cinsiyet rollerinden kaynaklanan dengesizliklerle bağlantılı olduğu düşünülmektedir. Kadınlar genellikle daha düşük kurumsal ve mesleki pozisyonlarda yer aldıkları için, fiziksel, sözlü ve cinsel taciz gibi şiddet türlerine daha fazla maruz kalabilmektedir.

Almanya'da bir üniversite hastanesinde 2014-2023 yılları arasında gerçekleşen şiddet olaylarının incelendiği bir çalışmada toplam 859 şiddet olayı kaydedilmiş ve en sık şiddete maruz kalan kişilerin hemşireler olduğu belirtilmiştir. Çalışmada %46 ile en sık sözlü saldırı tespit edilmişse de %24 oranında fiziksel saldırı kaydedilmiştir.

Başka bir çalışmada hemşireler ve hekimler arasında cinsiyete dayalı şiddet olayları incelenirken hastalardan kaynaklanan şiddet olayları ile birlikte çalışanlar arasındaki şiddet olayları da incelenmiştir. Faillerin %65inin erkek olduğu ve çalışanlar arasındaki şiddetin erkeklerin kadınlara ve kadınların kadınlara yönelik şiddet eğilimi olduğu görülmüştür.

Cinsiyet temelli şiddetin özellikle kadınların daha savunmasız olduğu durumlarda, yalnız çalıştıklarında ya da gece vardiyasında daha yaygın hale geldiği bilinmektedir. Şiddete maruz kalmalarına rağmen ekonomik ve mesleki kaygılar ya da şiddeti rapor etmenin uzun ve zahmetli süreçlere yol açabileceği endişesi raporlama oranlarını azaltmaktadır.

Kadın sağlık çalışanlarına yönelik şiddetin ardında yatan temeller, şiddetin yeterince görünür olmaması ve raporlanmaması, kadın çalışanların yeterince değer görmemesi, kadınların karar mekanizmasına sınırlı erişimi, toplumsal cinsiyet eşitliği ile ilgili politikaların yetersizliği olabilmektedir.

Güç dengesizliğini çözmek için cinsiyet dengesi sağlanmış liderlik rollerine ve toplu eylemlerle kadın sağlık çalışanlarının güçlendirilmesine yönelik önlemler alınması gerekmektedir. Ayrıca, işyerinde toplumsal cinsiyet eşitliği ve güçlendirme politikalarının, liderler tarafından desteklenmesi önemlidir. Bu bağlamda, kadın sağlık çalışanlarına yönelik şiddetin önlenmesi için eğitim programları, etkili güvenlik önlemleri ve kolay uygulanabilir raporlama mekanizmalarının hayata geçirilmesi hayati önem arz etmektedir. Bunun yanı sıra, toplumsal cinsiyet eşitliğini destekleyen politikalar geliştirilerek kadın çalışanların güvenli bir çalışma ortamına kavuşmaları sağlanabilir.

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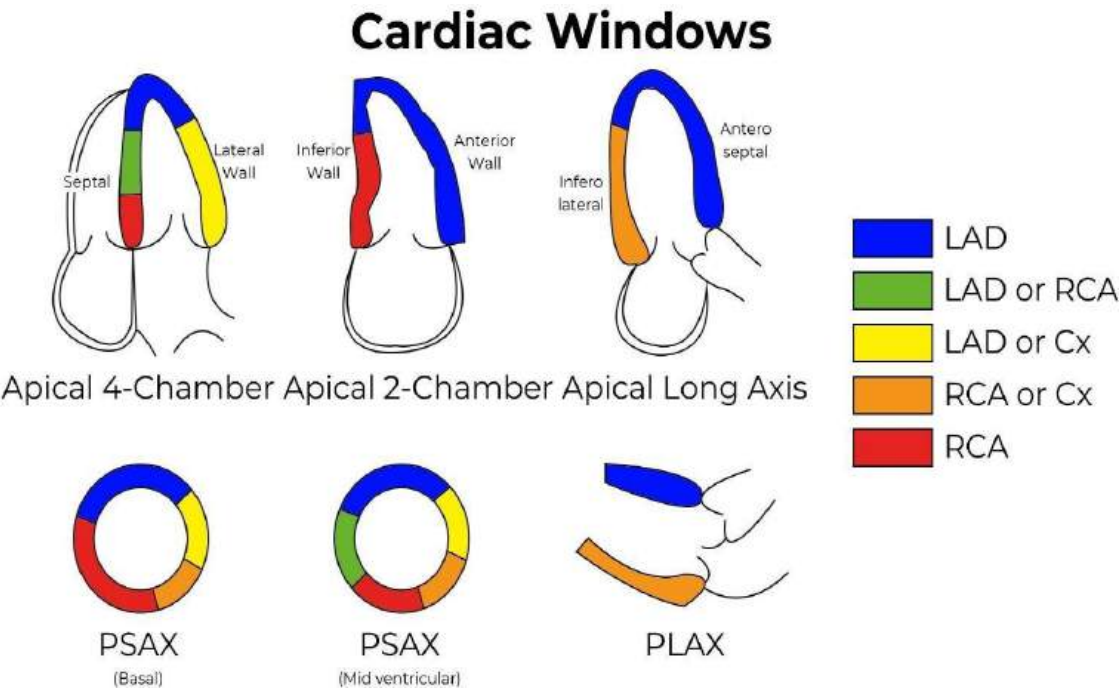
Doç Dr. Adnan Yamanoğlu

Title: Acute Coronary Syndomes and their complications

Bedside ultrasound has become quite common in the diagnosis of acute coronary syndrome (ACS), determination of complications and treatment management.

The most important sonographic finding of ACS is wall motion defects. However, wall motion defects (WMD) are not specific to ACS. Wall motion defects can be observed in many cases such as myocarditis, bundle branch blocks, and interventions such as ablation. The main difference between wall motion defects observed in ACS and these is that they often fit into coronary irrigation areas (Figure 1). Therefore, it is essential to know the coronary perfusion areas in the basic cardiac windows first.

Figure 1. Coronary artery myocardial perfusion areas



The diagnosis of ACS with echocardiography should be interpreted together with clinical and laboratory findings. The most important echocardiographic finding that can be attributed to ACS is WMD. At this point, determining whether the detected WMD is acute or chronic is the most important step. Some sonographic findings guide the clinician in this regard (Table 1.)

Table 1. Indicators in determining the age of wall motion defect

	Old	New



Ventricular Size	Dilated	Normal
Wall movement	Hypo /A / Dyskinesia	Hypokinetic (Frequently)
Myocardial Echogenicity	Hyperechoic	Normal
Wall Thickness	Decreased	Normal
Aneurysm	Yes	No

One of the areas where echocardiography contributes most to the diagnosis of ACS is the complications of ACS. ACS diagnosis can often be made without the help of echocardiography. However, echocardiography plays a major role in determining complications. Complications that can be monitored during ACS are presented in Table 2. Echocardiography plays a major role in detecting mechanical complications in particular.

Table 2. Complications of acute coronary syndrome

Table 3. Complications of Myocardial Infarction

Mechanical	- Left Ventricular Free Wall rupture / Pseudoaneurysm - Ventricular septal rupture - Acute Mitral Insufficiency (Papillary muscle rupture / Papillary muscle dysfunction) - True Ventricular Aneurysm - Pump failure and cardiogenic shock
Electrical	- Tachyarrhythmias (Ventricular Tachycardia / Fibrillation , Atrial Fibrillation) - Bradyarrhythmias (Sinus bradycardia, AV blocks) - Bundle branch and fascicle blocks
Inflammatory	- Peri-infarction pericarditis - Dressler's Syndrome
Ischemic	Post-infarct angina (Infarct enlargement, re-infarction)



Embolic

Mural thrombus formation and systemic embolism in the akinetic segment

Bedside cardiac evaluation plays an active role in the detection and management of ACS, as in many other issues. Therefore, the knowledge of the sonographic findings of ACS and ACS complications by emergency physicians will increase the success of physicians in this regard.



Nalan Gökçe ÇELEBİ YAMANOĞLU MD.

Title: Does RFT Broken USG help ? Hydronephrosis ?

The kidneys are retroperitoneal organs located on either side of the vertebral column. The right kidney is slightly more posterior than the left kidney because of the larger size of the liver relative to the spleen.

To perform renal ultrasound here are the key renal anatomic structures you should know:

Renal Cortex, Medullary Pyramids, Minor Calyces, Major Calyces, Renal Pelvis, Renal Sinus

The normal size of an adult kidney is around 9-13 cm in the longitudinal view and 4-6 cm in the transvers view.

The cortex contains the filtration system of the nephrons and then the medulla contains the resorption component. The pyramids it contains the loop of henle and the medullary pyramids are going to excrete urine into the collecting system and it's made up the calyces and you have a main major and minor calyces which are going to form the renal pelvis and then the ureter and goes down to your bladder.

COMMON CAUSES OF AKI?

HYMODYNAMIC

- Impaired forward flow
- Venous congestion
- Volume depletion
- Afferent arteriolar vasoconstriction (e.g. calcineurin inhibitors, hepatorenal syndrome)
- Vascular occlusion (e.g. Thromboembolism, renal artery stenosis)

INTRINSIC RENAL

- Glomerulonephrities (GN)

Primary GNs

Secondary GNs

- Tubular Causes

Acute Tubular Injury/ Necrosis (ATN)

Acute Interstitial nephritis (AIN)

OBSTRUCTIVE

- Urinary calculi (kidney, bladder stones)
- Prostatic enlargement (benign or malignant)
- Ureteral compression (e.g. Retroperitoneal fibrosis, cervical cancer)

- Urinary bladder tumors
- Dysfunctional bladder (Urinary retention)

How can we utilize ultrasonography to in each of these etiologic variants of acute kidney injury. It may not always provide the final diagnosis but it will at least help to narrow the differential and plan further management. The first thing you want to rule out in any patients with acute kidney injury is if the patient has obstructive nephropathy or not.

Figure 1. The order of the hydronephrosis

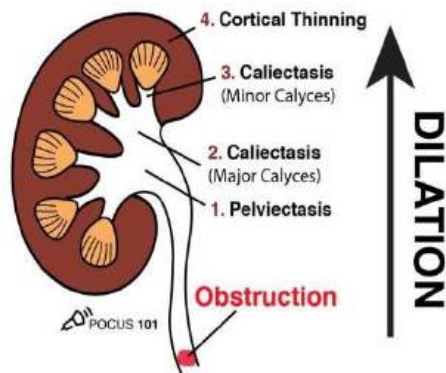
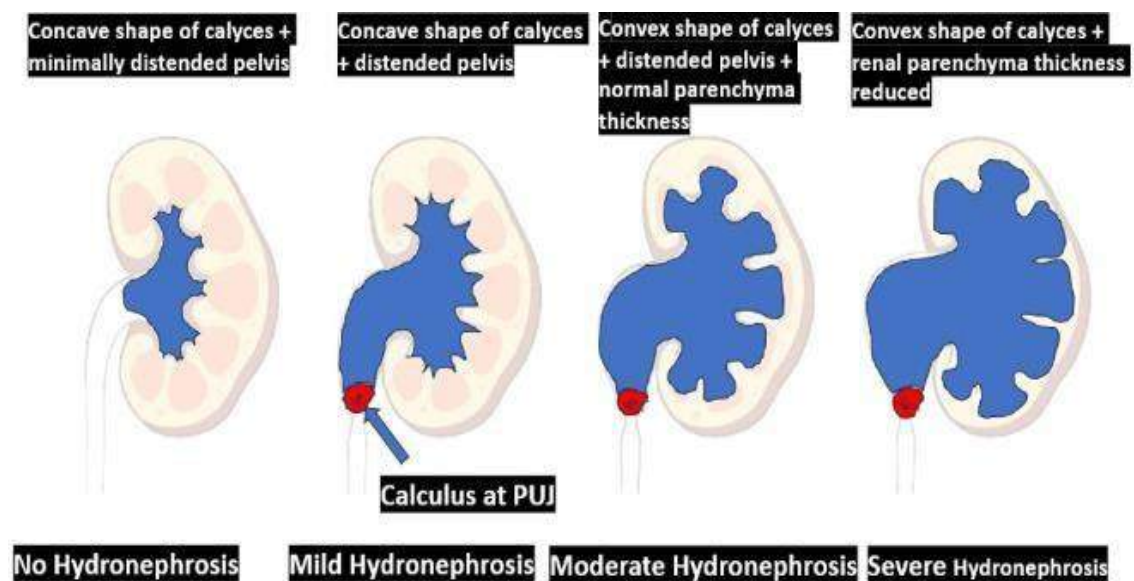


Figure 2. Diagrammatic representation showing the expected appearance of the pelvicalyceal system in different grades of hydronephrosis



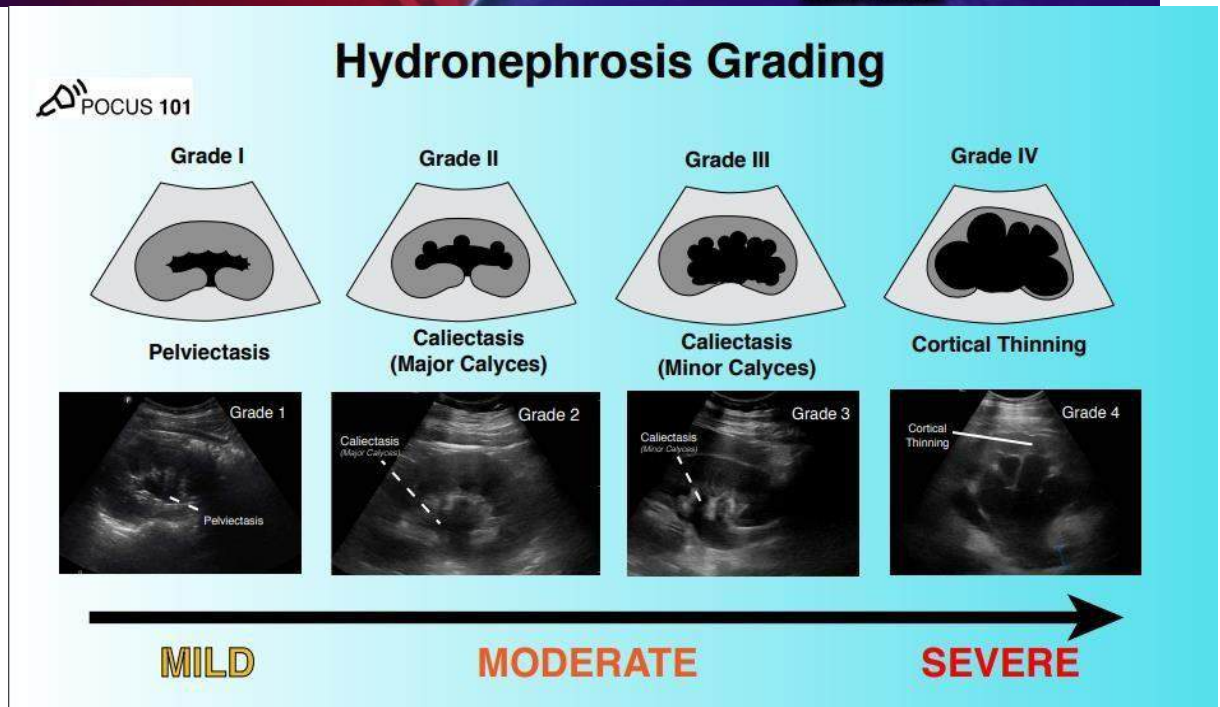


Figure 3. . The figure sums up the most commonly used hydronephrosis grading systems.

Bedside renal evaluation plays an active role in the detection and management of obstructive renal injury. It is important to exclude obstruction because it is easy to treat if you find obstruction. Therefore, the knowledge of the sonographic findings of hydronephrosis is very important for emergency physicians.



UZMAN DR. UFUK YILDIZ

ECMO-REBOA ACİL SERVİSTE KULLANIMI

ECMO

Ekstrakorporal membran oksijenizasyonu (ECMO)

- Şiddetli kalp ve akciğer yetmezliği olan hastalarda kullanılan gelişmiş bir yaşam desteği
- Sık kullanılan iki tipi var;
 - Venovenöz ECMO(VV ECMO)
 - Venoarteriyel ECMO (VA ECMO)

VV ECMO: Akut solunum yetmezliği ve şiddetli ARDS durumlarında endike

VA ECMO: Akut ya da kronik kalp yetmezliği olan hastaların geçici yaşam desteği için kullanılır.

Extracorporeal Life Support Organization (ELSO)'ya göre endikasyonları;

- Refrakter kardiyojenik şok
- Kardiyopulmoner resüsitasyon(ECPR)
- Akut dekompanse pulmoner vasküler hastalık
- Travma, anafilaktik şok, zehirlenme, boğulma vb durumlar

Komplikasyonları;

- Kanama
- Tromboz
- Enfeksiyon
- ABY

ECPR

Endikasyonları;

- Yaş <70
- Tanıklı kardiyak arrest
- CPR başlama süresinin 5 dk dan kısa olması
- Başlangıç ritmi: VF/VT/NEA
- ECMO'ya akışsız süre <60 dk



- ECMO kanülasyonundan önce $etCO_2 > 10$ mm Hg
- Spontan dolaşımın aralıklı olarak geri dönmesi (ROSC) veya tedaviye dirençli VF
- Yaşamı sınırlayan önemli eşlik eden hastalıkların olmaması
- Orta-İleri aort kapak yetersizliğinin olmaması

Hastane içi Kardiyak Arrest

- Chen ve arkadaşlarının 2008 yılında yaptıkları çalışmada
 - Geleneksel CPR ile ECPR karşılaştırdı
 - Her iki grupta 46 hasta vardı
 - ROSC açısından ECPR ile CPR arasında anlamlı farklılık mevcuttu
 - Hastaneden taburculuk açısından karşılaştırıldıklarında ECPR anlamlı olarak daha yüksek bulunmuş
 - Nörolojik sonuçlar (1 yıllık) olarak ECPR grubunda sağkalım daha yüksek bulunsada iki grup arasında anlamlı farklılık saptanmamış
- Shin ve arkadaşlarının 2013 yılında yayınladıkları çalışmaya göre;
 - ECPR ile geleneksel CPR karşılaştırılmış
 - ECPR ve CPR minimal bozukluk ile sağkalım oranları sırasıyla %20-%5 ($p=0.002$) olarak saptanmış
 - Ancak çalışmada ECPR uygulanan hastaların daha genç, erken müdahale ve sonrasında kardiyak müdahale edilme oranlarının daha yüksek olduğu saptanmış
- Ouwenel ve arkadaşlarının yayınladığı metaanalizde ECPR uygulanan hastaların 1 aylık nörolojik sağkalımlarında anlamlı bir şekilde CPR uygulanan gruba göre yüksek bulunmuş.

Hastane Dışı Kardiyak Arrest

- Yannopoulos ve arkadaşlarının 2020 yılında yayınladıkları çalışmada (ARREST)
 - Refrakter VF olan kardiyak arrest hastalarında ECPR ile geleneksel CPR ı karşılaştırmışlar
 - Her iki gruba randomize 15 hastayı dahil etmişler
 - ECPR grubundan 6 hasta (%43) taburcu olurken CPR grubundan 1 hasta (%7) taburcu olmuş.
- Belohlavek ve arkadaşlarının 2022 de yaptığı randomize klinik çalışmada (HYPERINVASIVE)
 - ECPR ile geleneksel CPR karşılaştırılmış
 - İki grup arasında 1 aylık minimal ve ya hiç nörolojik bozukluk olmadan sağkalım açısından ECPR yönünde olumlu istatistiksel anlamlı fark bulunmuş olsa da; 6 aylık sağkalım açısından anlamlı farklılık bulunmamış



- Uzamış resüsitasyonda ise ECPR dan hastaların önemli derecede fayda gördüğü saptanmış
- Suverein ve arkadaşlarının 2023 de yayınladığı çok merkezli randomize kontrollü çalışmada(INCEPTION)
 - 160 hasta ile yapılan çalışmada ECPR geleneksel CPR’a göre sayısal miktarda 30 günlük sağkalım sağlamış olsa da istatistiksel olarak iki grup arasında anlamlı farklılık saptanmamış
 - Bu çalışmadaki hastaların arrest olup ECMO ya alınma süresi diğer iki çalışmadan daha yüksek bulunmuş
- Lamhaut ve arkadaşlarının 2017 yılında yaptıkları çalışmada
 - Hastane öncesi ECPR ile hastane içi ECPR karşılaştırılmış
 - Hastane öncesi uygulanan ECPR da sağkalımın daha yüksek olduğu saptanmış.

Tüm çalışmalarda ortak vurgular

- İlk başlangıçta şoklanabilir ritm olması ECPR başarısını artırıyor
- Akımsız sürenin ve düşük akım hızı süresinin uzun olması ECPR başarısını azaltıyor
- Aralıklı ROSC olması ECPR başarısının artırıyor
- Arrest sırasında yaşamsal belirtilerin olması ECPR başarısını artırıyor
- Genç yaş olumlu sonuçlarla ilişkili
- Ek hastalığı olanlar, ileri yaş hastalar, şoklanabilir ritm bulunmayanlarda başarı düşük
- Organ nakli için geçiş süreci olarak kullanılabilir

Tüm bu bilgiler;

- Seçili vakalarda,
- özellikle genç hastalarda,
- ek hastalıkları olmayan ve ya az olan hastalarda,
- deneyimli ekipleri olan merkezlerde,
- özellikle koroner arter hastalığı düşündüren vakalarda ECMO’nun **yararlı olabileceği** düşündürmekte

ECMO tedavi yöntemi olmadığını, geçici destek yöntemi olduğu, hastanın asıl tedavileri için geçiş yöntemi olarak kullanılabileceğini unutmayalım!!

REBOA

Resuscitative Endovascular Balloon Occlusion of the Aorta(REBOA);

- Kanamalı hastalarda, hemostazı sağlamak ve hayati organların perfüzyonunu devam ettirmek için aortun resüsitatif balon oklüzyonu olarak tanımlanır



- 1954 yılında Kore savaşında ilk kullanılmış

Yerleştirme bölgeleri

- Zone 1: Sol subklaviyandan, çölyak artere kadar, inen torasik aort
- Zone 2: Çölyak ve renal arter arası, paraviseral aort
- Zone 3: Renal arter ve aort bifürkasyon arası, infrarenal abdominal aort

Koh ve arkadaşlarının 2023 yılında yayınladıkları çalışmada

- REBOA ile resüsitatif torakotomi karşılaştırmışlar
- İki grup arasında mortalite açısından anlamlı farklılık saptamamışlar.

Brenner ve arkadaşlarının 2024 yılında yayınladıkları çalışmada

- Künt ve penetran travmalı hastalarda REBOA ile resüsitatif torakotomi karşılaştırmışlar
- İki grup arasında mortalite açısından REBOA lehine anlamlı farklılık saptamışlar
- Her iki yöntemde de uygulamanın 30 dakikadan daha kısa olmasını önermişler

Paran ve arkadaşlarının 2024 yılında yayınladıkları çalışmada

- REBOA da kısmi oklüzyon ile tam oklüzyonu karşılaştırmışlar
- İki grup arasında mortalite açısından anlamlı fark bulamamışlar

Brenner ve arkadaşlarının 2024 de yayınladıkları çalışmada

- REBOA da Zon 1 ve Zon 3 uygulamaları arasında mortaliteyi karşılaştırmışlar
- Zon 1 uygulamalarında mortalitenin daha çok olduğunu, uygularken çok dikkatli ve seçici olması gerektiğini vurgulamışlar

Kim ve arkadaşlarının 2023 yılında yayınladıkları çalışmada

- Travma hastalarını REBOA yapılan ve yapılmayan olarak iki grupta incelemişler
- İki grup arasında mortalite açısından anlamlı farklılık saptamamışlar

Jansen ve arkadaşlarının 2023 yılında İngiltere’de yayınladıkları çalışmada

- REBOA ve standart tedavileri karşılaştırmışlar
- REBOA uygulanan grupta mortalite daha yüksek bulunmuş
- Çalışma REBOA mortaliteyi arttırabilir olarak sonuçlanmış
- Hedeflenen hasta sayısına ulaşmadan ara analiz sonuçlarının kötü gelmesi nedeniyle yarıda bırakılmış

Tüm bilgiler doğrultusunda



- Acil uzmanlarının bilgi gelişiminin yüksek olması
- E-FAST gibi tecrübelerin artması
- Tüm büyük merkezlerde multidisipliner yaklaşımın kolay ulaşılabilir olması
- REBOA komplikasyonlarının fazla olması
- REBOA uygulama süresinde azımsanmayacak kadar olması nedeniyle acil serviste uygulanabilirliğinin **uygun olmadığını** düşündürmekte
- Hastane öncesi ve savaş cerrahi gibi durumlarda uygulanması ile ilgili geniş çaplı araştırmalara ihtiyaç olduğunu düşünmekteyim



Myths in Emergency Medicine: Is contrast nephropathy not as common as we feared?

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1. Introduction: What is Contrast Nephropathy?

Contrast nephropathy is an acute kidney injury caused by the toxic effect of contrast agents used during medical imaging, especially on the kidneys. Especially when intravenous or intra-arterial contrast agents are used, a sudden deterioration in renal function can be observed in patients in the high-risk group.

2. Concerns and Historical Perspective

In the past, the risk of contrast nephropathy was of greater concern. In various studies, serious decreases in renal function were reported in patients exposed to contrast agents. This risk was believed to be particularly high in patients with diabetes, hypertension and renal dysfunction. Therefore, the use of contrast agents was tried to be avoided.

3. Current Research: What is the Prevalence?

However, recent studies show that the risk of contrast nephropathy may be lower than thought. In particular, newly developed low osmolarity and isoosmolar contrast agents may have less toxic effects on the kidneys. Furthermore, some studies suggest that kidney damage, defined as contrast nephropathy, may actually be more related to underlying diseases and other risk factors than to the contrast medium.

For example, a large meta-analysis published in 2020 reported that the incidence of contrast-induced kidney injury was less than 2% in the general population. In addition, some patients thought to develop contrast nephropathy have been found to develop acute kidney injury without the administration of contrast agents. Thus, this injury may be a condition that is sometimes attributed to contrast agents, but may in fact be related to other factors.



4. Risk Factors and Preventive Measures

Of course, the risk of contrast nephropathy cannot be completely excluded. In particular, risk factors such as advanced age, pre-existing kidney disease, diabetes mellitus and dehydration should be considered. However, effective strategies have been developed to manage these risks. Hydration measures, preference of low-risk contrast agents and better patient selection may help to minimise the risk.

5. Conclusion

In conclusion, contrast nephropathy may not be as common as we thought. The risks seem to be significantly reduced thanks to new contrast agents and preventive strategies. However, it should be remembered that caution should be exercised in high-risk patients. Further prospective and randomised controlled trials may clarify the uncertainties in this area.

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Doç.Dr. Yücel YÜZBAŞIOĞLU

ACİL TIPTA 2023 YILI TOP 5 LİTERATÜR

1. Dual Antiplatelet Therapy vs Alteplase for Patients With Minor Nondisabling Acute Ischemic Stroke: The ARAMIS Randomized Clinical Trial

Amaç:

Minör ve özür bırakmayan akut iskemik inme hastalarında, çift antiplatelet tedavi (DAPT: aspirin + klopidoğrel) ile trombolitik tedavi olan alteplaz karşılaştırılmıştır.

Çalışma, hastaların 90 günlük iyileşme sonuçlarını ve tedavilerle ilişkili komplikasyonları değerlendirmiştir.

Yöntem:

ARAMIS çalışması, randomize, çok merkezli bir klinik deneme olarak yapılandırılmıştır.

2000'den fazla hasta iki gruba ayrılmıştır: DAPT alanlar ve alteplaz alanlar.

Sonuçlar:

DAPT grubundaki hastaların klinik iyileşme oranları, alteplaz grubuna benzer bulunmuştur (%70'e karşı %68).

Ancak DAPT grubunda kanama gibi yan etkiler daha az gözlemlenmiştir.

Klinik Önemi:

Minör inme geçiren hastalarda trombolitik tedaviye alternatif olarak, güvenli ve etkili bir şekilde DAPT uygulanabilir.

Yan etkilerin daha az olması ve benzer etkinlik oranı, DAPT'yi özellikle hafif inmelerde tercih edilebilir bir seçenek haline getirir.

2. The Efficacy of Prehospital IV Fluid Management in Severely Injured Trauma Patients: A Systematic Review and Meta-Analysis

Amaç:

Hastane öncesi travma bakımında intravenöz (IV) sıvı tedavisinin faydalarının ve potansiyel risklerinin değerlendirilmesi.

Ağır travmalı hastalarda sıvı yönetiminin hayatta kalma oranları üzerindeki etkisi analiz edilmiştir.

Yöntem:

Bu sistematik derleme ve meta-analiz, 20'den fazla randomize klinik denemeyi içermektedir.

Hastane öncesi sıvı yönetiminin optimum miktarı ve zamanlaması değerlendirildi.

Sonuçlar:

Erken ve uygun miktarda verilen sıvı tedavisi, hayatta kalma oranlarını iyileştirebilir.



Ancak aşırı sıvı verilmesi, kanamayı artırabilir ve hastaların sonuçlarını olumsuz etkileyebilir.

Klinik Önemi:

Sıvı tedavisinin travmalı hastalarda dikkatlice yönetilmesi gerektiği, hem hastane öncesi hem de acil servis bakımında kritik öneme sahiptir.

Aşırı sıvı verilmesinin komplikasyonlara yol açabileceği göz önünde bulundurularak tedavi dengeli uygulanmalıdır.

3. PATCH-Trauma Investigators: Prehospital Tranexamic Acid for Severe Trauma

Amaç:

Travma sonrası aşırı kanama geçiren hastalarda, hastane öncesi dönemde traneksamik asit (TXA) uygulamasının etkilerinin değerlendirilmesi.

TXA'nın kanama kontrolü ve hayatta kalma oranları üzerindeki etkisi incelenmiştir.

Yöntem:

Randomize kontrollü bir çalışma olarak yürütülen bu deneme, 1000'den fazla ağır travmalı hastayı içermektedir.

Bir grup TXA tedavisi alırken, diğer grup standart bakım aldı.

Sonuçlar:

TXA uygulanan hastalarda kanama kontrolü daha başarılı olmuş ve ölüm oranlarında anlamlı bir azalma gözlemlenmiştir.

Komplikasyon oranlarında bir artış gözlemlenmemiştir.

Klinik Önemi:

TXA, travma sonrası acil bakımda standart bir tedavi seçeneği olarak önerilmektedir.

Hayatta kalma oranlarının artırılması açısından önemli bir etkiye sahip olan TXA, acil servislerde ve hastane öncesi bakımda rutin olarak kullanılabilir.

4. Tenecteplase Versus Alteplase for Acute Ischemic Stroke in the Elderly Patients: A Post Hoc Analysis of the TRACE-2 Trial

Amaç:

Yaşlı inme hastalarında tenekteplaz ve alteplaz tedavilerinin etkinlik ve güvenlik profillerinin karşılaştırılması.

Yaşlı hastalar, genç hastalara göre daha yüksek risk grubundadır ve bu nedenle uygun trombolitik tedavi seçimi önemlidir.

Yöntem:

TRACE-2 çalışmasının bu post-hoc analizi, 75 yaş üzerindeki akut iskemik inme hastalarını kapsamaktadır.



Hastalar iki gruba ayrılmış ve bir gruba tenekteplaz, diğerine alteplaz uygulanmıştır.

Sonuçlar:

Tenekteplaz grubundaki hastalar daha hızlı iyileşme göstermiştir.

Güvenlik profilleri iki tedavi arasında benzer bulunmuştur, ancak tenekteplaz daha kolay uygulanabilir.

Klinik Önemi:

Yaşlı hastalarda inme tedavisinde tenekteplaz, özellikle pratik uygulama avantajı nedeniyle, klinik olarak anlamlı bir alternatif olabilir.

Tenekteplazın daha basit bir dozajı ve uygulama süreci, inme tedavisini hızlandırarak tedavi sonuçlarını iyileştirebilir.

5. Tranexamic Acid in Prehospital Trauma Care: A Meta-Analysis

Amaç:

Travma geçiren hastalarda traneksamik asit (TXA) uygulamasının etkinliğini değerlendiren bir meta-analizdir.

TXA'nın hastane öncesi dönemde kanama kontrolü ve mortalite üzerindeki etkileri incelenmiştir.

Yöntem:

Bu meta-analiz, 15 randomize kontrollü denemenin sonuçlarını birleştirmiştir.

TXA, travmalı hastalarda hayatta kalma oranları ve kanama komplikasyonları açısından değerlendirilmiştir.

Sonuçlar:

TXA, kanamayı kontrol etmede ve travma sonrası ölüm oranlarını azaltmada etkili bulunmuştur.

Yan etkiler açısından herhangi bir artış gözlenmemiştir.

Klinik Önemi:

TXA, travmalı hastalarda hastane öncesi acil müdahalelerde kritik bir ilaç olarak ön plana çıkmaktadır.

Bu sonuçlar, dünya genelinde acil sağlık hizmetlerinde TXA'nın standart bir tedavi olarak uygulanmasını desteklemektedir.



Routine Oxygen Therapy should be administered in all patients with acute myocardial infarction

Süeda ZAMAN¹

One of the most common causes of death in developed societies is cardiovascular diseases [1]. Among these cardiovascular diseases, acute myocardial infarction (AMI) can lead to mortality if early diagnosis and treatment are not initiated [2]. The most serious complications that may arise in patients with AMI include cardiogenic shock, heart failure, ventricular fibrillation, and recurrent ischemia.

Reperfusion therapy is considered the gold standard treatment for patients experiencing AMI. Oxygen therapy has been part of routine treatment for the acute management of AMI since 1900 [3]. According to the 2010 American Heart Association's Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, routine oxygen therapy is initiated in patients suspected of having acute coronary syndrome. If the patient is dyspneic, hypoxemic, or has heart failure, their oxygen saturation should be maintained at 94% (Class 1, Level of Evidence:C). The 2013 AHA Guidelines state that there is insufficient evidence to support the routine use of oxygen and indicate that oxygen therapy is appropriate for patients with an oxygen saturation < 90% [4]. The European Society of Cardiology (ESC) guidelines published in 2017 also do not recommend routine oxygen therapy to reduce hypoxia, and the threshold for initiating oxygen has been lowered from < 95% to < 90% [5]. In the most recently updated 2023 ESC guidelines, the necessary oxygen saturation for treatment is still indicated as < 90% [6].

According to the results of a meta-analysis involving seven studies with 7,702 patients, routine oxygen therapy in AMI patients without hypoxemia was shown not to reduce the incidence of arrhythmias, heart failure, or recurrent ischemic events [3]. In the 2010 Cochrane review by Cabello et al., it was noted that patients receiving routine oxygen therapy for AMI had higher mortality rates compared to those receiving normal air [4]. Damage associated with hyperoxia has been attributed to increased coronary and systemic vascular resistance, decreased coronary arterial flow, and the generation of reactive oxygen species [7, 8].

In light of the studies and guidelines, routine oxygen therapy is not recommended for AMI patients with saturation > 90%.

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Okhan AKDUR MD Prof.

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Not Every Shock Is Sepsis! Approach Algorithms for Patients with Undifferentiated Hypotensive Shock

Shock is a condition of cellular and tissue hypoxia caused by a reduction in oxygen delivery and/or increased oxygen consumption. There are four classes of shock: distributive, cardiogenic, hypovolemic, and obstructive. The term "undifferentiated shock" refers to a situation where the shock state is recognized, but its cause is unknown. Clinical findings vary based on etiology and stage. Clinical signs that raise suspicion of shock include hypotension; oliguria; altered mental status; tachypnea; cold, clammy skin; and metabolic acidosis (usually hyperlactatemia). These features are not highly sensitive or specific for the diagnosis of shock. However, they are used to narrow the differential diagnosis so that empirical treatments can be administered in a timely manner. In the initial approach to undifferentiated hypotension or shock, oxygen, mechanical ventilation, airway management, and respiratory support should be provided as needed. To ensure adequate tissue perfusion, an intravenous line should be established for intravenous fluid therapy. In patients with undifferentiated hypotension or shock, the clinician should classify the patient based on the severity of shock and the need for urgent or early intervention so that life-saving treatments can be administered quickly. Life-saving treatments include intramuscular epinephrine (anaphylaxis), pericardiocentesis (cardiac tamponade), chest tube insertion (tension pneumothorax), surgical intervention (hemorrhagic shock, valve rupture, aortic dissection), cardioversion or pacemaker insertion (life-threatening arrhythmias), intravenous antibiotics (sepsis), revascularization procedures (myocardial infarction), systemic thrombolysis (massive pulmonary embolism), and intravenous glucocorticoids (adrenal crisis). Clinicians should take a detailed history, assess sensation, mucous membranes, neck veins, lungs, heart, abdomen, skin, and joints. Bedside monitoring should include electrocardiography. Serum lactate, kidney and liver function tests, troponin-I or -T levels, B-type natriuretic peptide or N-terminal pro-B-type natriuretic peptide levels, complete blood count, prothrombin time, INR, activated partial thromboplastin time, D-dimer level, and blood gas analysis should be performed. In patients with undifferentiated shock, a chest X-ray and bedside ultrasound should be conducted. Additional imaging techniques should aim to identify the etiology of the shock (e.g., chest CT). Hemodynamic measurements obtained by pulmonary artery catheterization may help in cases where the diagnosis or type of shock cannot be determined. In patients suspected of having shock, support with intravenous fluids (usually crystalloids in 500–1000 mL boluses, often administered through pressurized bags at different intervals) should be provided, followed by the administration of vasopressors. Although the optimal target for end-organ perfusion pressure is uncertain, it is generally recommended to maintain the mean arterial pressure between 65 and 70 mmHg. The diagnosis of shock is based on the combination of clinical, biochemical, and hemodynamic features. Using data obtained from diagnostic evaluation, the type of shock can be classified, and the etiology can be narrowed down to a few possibilities. Empirical treatments should be initiated early in shock patients (e.g., antibiotics). Once the diagnosis is clarified, response should be monitored, and treatments should be adjusted accordingly.



Her Şok Sepsis Değildir! Tanımlanmamış Hipotansiyon Şok Hastasına Yaklaşım Algoritmaları

Prof. Dr. Okhan AKDUR

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Şok, oksijen sunumunun azalması ve/veya artan oksijen tüketimi nedeniyle hücrel ve doku hipoksisi durumudur. Dört şok sınıfı vardır; dağılımsal, kardiyojenik, hipovolemik ve obstrüktif. "Ayrımı yapılmamış şok" terimi, şok durumunun fark edildiği, nedeninin bilinmediği durumu ifade eder. Klinik bulguları etiyolojiye ve evresine göre değişir.

Şoktan şüphelenmeye neden olan klinik bulgular hipotansiyon; oligüri; şuur durum değişikliği; taşipne, soğuk, nemli cilt ve metabolik asidozudur (genellikle hiperlaktatemi). Bu özellikler şok tanısı için duyarlı ve spesifik değildir. Ancak ampirik tedavilerin zamanında uygulanabilmesi için ayırıcı tanıyı daraltmak için kullanılır. Ayrımı yapılmayan hipotansiyon veya şok hastalarına ilk yaklaşımda, gerektiğinde oksijen, mekanik ventilasyon, hava yolu ve solunum desteği sağlanmalıdır.

Yeterli doku perfüzyonunu sağlamak, intravenöz sıvı tedavisine yönelik intravenöz yol sağlanmalıdır

Ayrımı yapılmamış hipotansiyonu veya şoku olan hastalarda, ampirik hayat kurtarıcı tedavilerin hızla uygulanabilmesi için klinisyen hastayı şokun şiddetine, acil veya erken müdahale ihtiyacına göre sınıflandırmalıdır. Hayat kurtarıcı tedaviler; kas içi epinefrin (anafilaksi), perikardiyosentez (perikardiyal tamponad), göğüs tüpü takılması (tansiyon pnömotoraks), cerrahi müdahale (hemorajik şok, kapak rüptürü, aort diseksiyonu), kardiyoversiyon veya kalp pili takılması (hayati tehdit eden aritmiler), intravenöz antibiyotikler (sepsis), revaskülarizasyon işlemleri (miyokard enfarktüsü), sistemik tromboliz (masif pulmoner emboli) ve intravenöz glukokortikoid (adrenal kriz) uygulamaları yer almaktadır.

Klinisyenler ayrıntılı öykü almalı, duyu, mukozalar, boyun damarlarını, akciğerleri, kalbi, batin, deri ve eklemleri değerlendirmelidir. Yatak başı monitörizasyon elektrokardiyografi yapılmalıdır.

Serum laktat, böbrek ve karaciğer fonksiyon testleri, troponin-I veya -T düzeyi, B tipi natriüretik veya N-terminal pro-B natriüretik peptid düzeyi, tam kan sayımı yapılmalı, protrombin zamanı, INR, aktifleştirilmiş kısmi tromboplastin zamanı, D-dimer düzeyi ve kan gazı analizi yapılmalıdır. Ayrımı yapılmayan şoklu hastalarda akciğer grafisi ve hasta başı ultrasonografi yapılmalıdır. Ek görüntüleme yöntemleri şokun etiyolojisini belirlemeyi hedeflemelidir (örn. göğüs BT).

Pulmoner arter katateri ile elde edilen hemodinamik ölçümler, tanının veya şokun tipinin belirlenemediği durumlarda yardımcı olabilir. Şok şüphesi olan hastalara intravenöz sıvılar ile (genellikle basınçlı torbalar kullanılarak farklı aralıklarla 500-1000 mL'lik boluslar halinde kristalloidler) destek verilmeli, ardından vazopresörler uygulanmalıdır.

Optimum uç organ perfüzyon basıncı belirsiz olsa da genel olarak ortalama arteriyel basıncın 65-70 mmHg arasında tutulması önerilmektedir. Şok tanısı klinik, biyokimyasal ve hemodinamik özelliklerin birleşimine dayanır. Tanısal değerlendirmeden elde edilen veriler kullanılarak şok tipi sınıflandırılabilir ve etiyoloji birkaç olasılığa daraltılabilir. Şok hastalarında ampirik tedaviler erken uygulanmalıdır (örn. antibiyotikler). Teşhis netleştikten sonra yanıt izlenmeli ve tedaviler iyileştirilmelidir.



Uzm. Dr. Ayşe Sümeyye An

Sincan Eğitim Araştırma Hastanesi

Don't Withhold Antibiotics From Sepsis Patients Because of Delay in Obtaining Blood Cultures

Sepsis is a condition characterized by the body's excessive response to infection, which can rapidly pose a life-threatening risk. Millions of individuals die from sepsis each year. Early diagnosis and appropriate treatment are critical for saving these patients' lives. Today, I would like to emphasize the necessity of obtaining cultures before initiating antibiotic therapy in the treatment of sepsis.

Antibiotics are vital medications in the management of sepsis, but their proper use is equally important. Obtaining cultures is the most reliable method for accurately identifying the source of infection and the causative pathogen. If antibiotic therapy is started without prior culture, there is a risk of selecting the wrong antibiotic, which can prolong the treatment process and contribute to the development of antibiotic resistance. This situation not only delays the patient's recovery but also limits future treatment options.

In emergency situations, there are concerns that obtaining cultures may result in time loss; however, in reality, obtaining cultures before initiating antibiotics is critical for immediate patient safety. Starting treatment without cultures may lead to unnecessary or inappropriate antibiotic use, putting the patient at further risk.

Protocols recommend obtaining cultures prior to initiating antibiotic therapy. This is feasible even in rapidly progressing conditions like sepsis and can improve treatment outcomes.



Uzm. Dr. Ayşe Sümeyye Arı

Sincan Eğitim Araştırma Hastanesi

Acil servise göğüs ağrısı ya da MI düşündürebilecek semptomlar ile başvuran hastaların çekilen ilk EKG 'sinde infarktten önce gelişmiş olabilecek veya infarktüsün bir komplikasyonu olabilecek bir dal blok paterni görülmesi hızlı karar verilmesi gereken MI tanısında bizi zora sokmaktadır. Sol dal bloğu olan hastaların diğer hastalara göre tedavilere daha az ulaştığı ve hastane içi daha mortal seyrettiği bildirilmiştir.

Di Marco ve arkadaşları 2020 yılında yaptıkları çalışma ile "Barcelona Algoritması" adını verdikleri sol dal bloğunda MI tanı kriteri olarak kullanılabilecek bir algoritma önermişlerdir.

*Çalışmaya, 484 hasta dahil edilmiştir ve bu çalışmada, yeni olduğu düşünülen LBBB nedeniyle pPCI'ye yönlendirilen ve ilk tıbbi temas sırasında kaydedilen EKG'si mevcut olan tüm hastalar dahil edilmiştir.

*Bu çalışmanın amacı, sol dal bloğu (LBBB) varlığında akut miyokard enfarktüsünün (AMI) elektrokardiyografik tanısının, herhangi bir EKG derivasyonunda konkordant ST depresyonu ve düşük voltajlı QRS komplekslerine sahip derivasyonlarda diskordant ve orantısız ST sapmalarının dikkate alınmasıyla iyileşip iyileşmediğini değerlendirmektir.

Sgarbossa. Barcelona

Düşük Duyarlık

Di Marco ve arkadaşları tarafından

2020 yılında "**Barcelona Algoritması**" adında sol dal bloğunda MI tanı kriteri olarak kullanılabilecek bir algoritma önerilmiştir.

Barcelona Algoritma Tanı Tanı Kriterleri

1. Herhangi bir EKG derivasyonunda QRS'in pozitif ya da negatif yönü ile uyumlu ≥ 1 mm ST sapması yani aşağıdakilerden bir tanesi
 - 1a. Herhangi bir EKG derivas. QRS negatif iken ≥ 1 mm ST çökmesi
 - 1b. Herhangi bir EKG derivas. QRS pozitif iken ≥ 1 mm ST elevasyonu
2. R dalgasının tepe noktası ile S dalgasının en alt noktası arasındaki mesafe ≤ 6 mm iken herhangi bir derivasyonda QRS'in pozitif ya da negatif yönüne ters yönde ≥ 1 mm ST sapması olarak tanımlanmaktadır.

Barcelona kriterlerinde; LBBB ve şüpheli AMI hastalarında EKG'nin tanısız duyarlılığını artırmak için EKG'ye iki yeni yaklaşım geliştirilmiştir

1- QRS ile uyumlu herhangi bir ST sapması anormal olarak kabul edilmesi gerektiğinden, sadece uyumlu ST yükselmesinin değil, aynı zamanda uyumlu ST depresyonunun da AMI belirtisi olabileceği varsayılmıştır .

- V1'den V3'e kadar olan derivasyonlarda uyumlu ST depresyonuna ilişkin Sgarbossa kuralı daha sonra, teorik olarak farklı miyokardiyal bölgelerdeki akut iskeminin elektrokardiyografik projeksiyonunu kapsayacak şekilde diğer tüm derivasyonları da kapsayacak şekilde genişletilmiştir .

2- Düşük voltajlı QRS komplekslerinde belirgin (≥ 1 mm veya 0,1 mV) uyumsuz ST sapmasının varlığı, AMI için pozitif bir kriter olarak kabul edilmiştir. Bu kriter, iskemi olmadığında, bu komplekslerin genellikle izoelektrik ST segment potansiyelleri göstermesi nedeniyle dahil edilmiştir.



Barcelona Algoritması Neden Gerekliydi???

- LBBB'nin ST-segment elevasyonu ile eşdeğer kabul edilmesi, AMI olmayan hastaların büyük çoğunluğunun gereksiz yere acil reperfüzyonun agresif ve maliyetli protokolüne maruz kalmasına neden olmaktadır.
- pPCI için başvuran LBBB'li hastalar arasında yalnızca %37'sinin gerçekten AMI geçirdiği çalışmalar sonucu ortaya konmuştur.
- Diğer yandan, LBBB ve iskemik semptomları olan hastalarda pPCI protokolü doğrudan aktif hale getirilmezse, LBBB'li ve AMI olan yüksek riskli alt grup hastalar zamanında reperfüzyon tedavisinden mahrum kalabilir ve bu da prognozları üzerinde potansiyel olumsuz sonuçlar doğurabilir.
- Bu değerlendirmeler, LBBB varlığında AMI'yi teşhis etmek için yeni EKG kriterlerine olan acil ihtiyacı vurgulamaktadır

Barcelona algoritması

LBBB'li hastalarda STEMI tanısı için sol dal bloğu olmayan hastalardakine benzer duyarlılığı ve özgüllüğü sahip olduğunu bildirmiştir.

Ayrıca, yüksek negatif prediktif değeri vardır: Algoritma negatif olduğunda, Akut MI olasılığı çok düşük görünmektedir.

Yapılan bir çalışmada

Barcelona algoritmasının

özgüllüğü %89

duyarlılığı ise %93

olarak bulunmuştur.

SONUÇ

Bu yeni algoritmanın en iyi yönü

Her türlü Akut MI konumuna uygulanabilmesidir



Uzm. Dr. Ayşe Sümeyye An

Sincan Eğitim Araştırma Hastanesi

Sepsis is a life-threatening organ dysfunction caused by a dysregulated host response to infection (1). Despite all advancements in medicine, approximately 30 million people are admitted to hospitals with sepsis each year, and this number is increasing by about 10% annually (2). Studies have shown that one person is lost to sepsis every three seconds (2). The ongoing danger of sepsis is significantly influenced by the increasing number of elderly individuals, those with compromised immune systems, and patients with chronic diseases, as well as the rise in antibiotic-resistant infections and invasive surgical procedures (2). Guidelines sharing years of experience in the diagnosis and treatment of sepsis have been shared with the medical community, and additional updates to the standard definitions were made in 2001, 2016, 2018, and 2019 (2). However, it is important to understand that these guidelines are recommendations and cannot replace the clinician's judgment (2).

Kaynakça

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FULL TEXTS

INVESTIGATION OF THE DIAGNOSTIC VALUE OF ULTRASOUND IN DETECTING FOREARM FRACTURES IN THE PEDIATRIC POPULATION APPLYING TO THE EMERGENCY SERVICE

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Purpose: Pediatric forearm trauma is one of the most common reasons for referral to the emergency department trauma unit. The aim of our study is to investigate the diagnostic value of ultrasonography (USG) compared to direct radiography in detecting forearm fractures in children aged 2-15 years with incomplete bone development.

Material and Method: Our prospective, observational and single-center study included patients aged 2-15 years, conscious, with isolated forearm trauma and closed injuries who applied to the emergency department of Kayseri City Hospital Emergency Medicine Clinic between 01.01.2021 and 31.08.2021. Written consent was obtained from the relatives or guardians of all patients. In the study, the physician who first examined the patient filled out the research form and requested a direct radiograph. Forearm soft tissue USG was performed by the USG certified principal investigator who was blinded to the diagnosis and imaging results.

Findings: A total of 87 patients, 60 male (69%) and 27 (31%) female, were included in the study. Fractures were detected in 69 (79.3%) patients, and 47 of the patients had only radius (54%), 20 (23%) had radius and ulna fractures, and 2 (2.3%) had only ulna fractures.

The sensitivity rate of USG for radius displaced fractures was found to be 96.67%, selectivity rate was 100%, and total accuracy rate was 98.8%. The sensitivity for radius nondisplaced fractures was found to be 94.59%, selectivity rate was 100%, and total accuracy rate was found to be 97.7%. The sensitivity rate of USG for displaced ulna fractures was found to be 94.1%, the selectivity value was 100%, and the total accuracy rate was 98.8%. The sensitivity coefficient for non-displaced ulna fractures was found to be 60%, the selectivity coefficient was 100%, and the total accuracy rate was found to be 97.7%.

Conclusion: The predictive power of USG for direct radiography results in pediatric forearm traumas was found to be extraordinary. As the clinical experience and USG experience of emergency physicians increases, we think that USG can be a more useful, radiation-free, and inexpensive diagnostic tool in the detection of forearm trauma in children.

Keywords: Ultrasonography, Forearm Fracture, Pediatric Population, Emergency Department

Introduction

Pediatric traumas constitute a significant portion of emergency department visits. Forearm fractures constitute 20-36% of all extremity fractures (1). Forearm traumas occur either as a result of direct trauma or as a result of falling onto an outstretched hand, most commonly from the same level (2). Forearm fractures constitute 41.1% of pediatric fractures (3).



In children, forearm fractures are usually apparent from the outside and are diagnosed by examination. Patients with suspected forearm fractures usually present with pain, swelling, redness, and deformity in the forearm (4).

Evaluation of extremity trauma typically includes both clinical and radiologic examinations. Conventional radiographs of the wrist in 2 planes are considered the gold standard (5). Radiographs expose children to small doses of radiation. Children are four times more sensitive to radiation than adults (6). Although extremity radiographs generally contain small amounts of radiation, cumulative radiation doses can cause health problems, such as an increased risk of malignancy over an individual's lifetime (5,7).

Bedside ultrasonography (USG) avoids this exposure for patients. In addition, bedside USG saves patients time in the emergency department by avoiding trips to the radiology department and delays waiting for radiographs to be interpreted (7,8). However, ultrasound has the advantage over x-ray in that it is excellent at visualizing soft tissue changes and, as a result, can identify secondary signs of a fracture. These signs can support primary findings and potentially increase the diagnostic yield of ultrasound for fractures (9,10).

Purpose

Our aim is to investigate the diagnostic accuracy of bedside USG compared to plain radiography in the detection of forearm fractures in children with incomplete bone development in the emergency department. Thus, to prove the superiority of USG over radiography as a fast, reliable and radiation-free method in the detection of forearm fractures in the emergency department.

Method

Our prospective, observational, single-center study included childhood patients who presented to Kayseri City Hospital Emergency Medicine Clinic between 01.01.2021 and 31.08.2021 as outpatients or by ambulance, with a Glasgow Coma Scale (GCS); 15, isolated forearm trauma, closed injury, and who were informed about the study and gave their consent (from themselves and their parents/surrogate or guardian if they were of school age, or from their parents/surrogate or guardian if they were younger than school age). 95 patients were initially included in the study, but a total of 8 patients were excluded because 4 patients were noncompliant during USG imaging and 4 patients' relatives did not want to give consent. As a result, a total of 87 patients were included in the study. Patients under 2 years of age, over 15 years of age, those with forearm deformity, those with multisystem trauma, those with mental status changes, those with hemodynamic disorders (signs of shock), those with developmental delay, those with open wounds on the forearm, those allergic to USG gel, and those for whom consent could not be obtained were not included.

The primary researcher, who was an emergency medicine physician with at least 2 years of experience, asked the children, their parents, or their caregivers to describe the accident and performed a clinical examination including physical examination, palpation, and neurovascular assessment, which was recorded on the patient follow-up form.



Before the radiographs were taken, bedside USG of the forearm was performed according to a standardized method by a secondary researcher who was certified in USG and was unaware of the patient's clinical condition.

The forearm was examined in 6 standardized planes (lateral, dorsal and volar surfaces, transverse and longitudinal planes) (Figure 1). Bone cortex continuity, soft tissue hematoma presence, fracture localization were examined and noted from the images taken in 6 planes. USG fracture diagnosis was made with the presence of cortical gap, cortical protrusion, cortical deviation or positive hematoma covering the cortical in all images. USG image was also recorded as a photograph (Figure 2).

For patients who did not need orthopedic consultation, the direct radiograph interpretation of an experienced emergency room physician was accepted as the gold standard, and for patients who needed orthopedic consultation, the direct radiograph interpretation of an orthopedic physician was accepted as the gold standard, and the diagnostic value of USG was investigated by comparing it with direct radiographs.

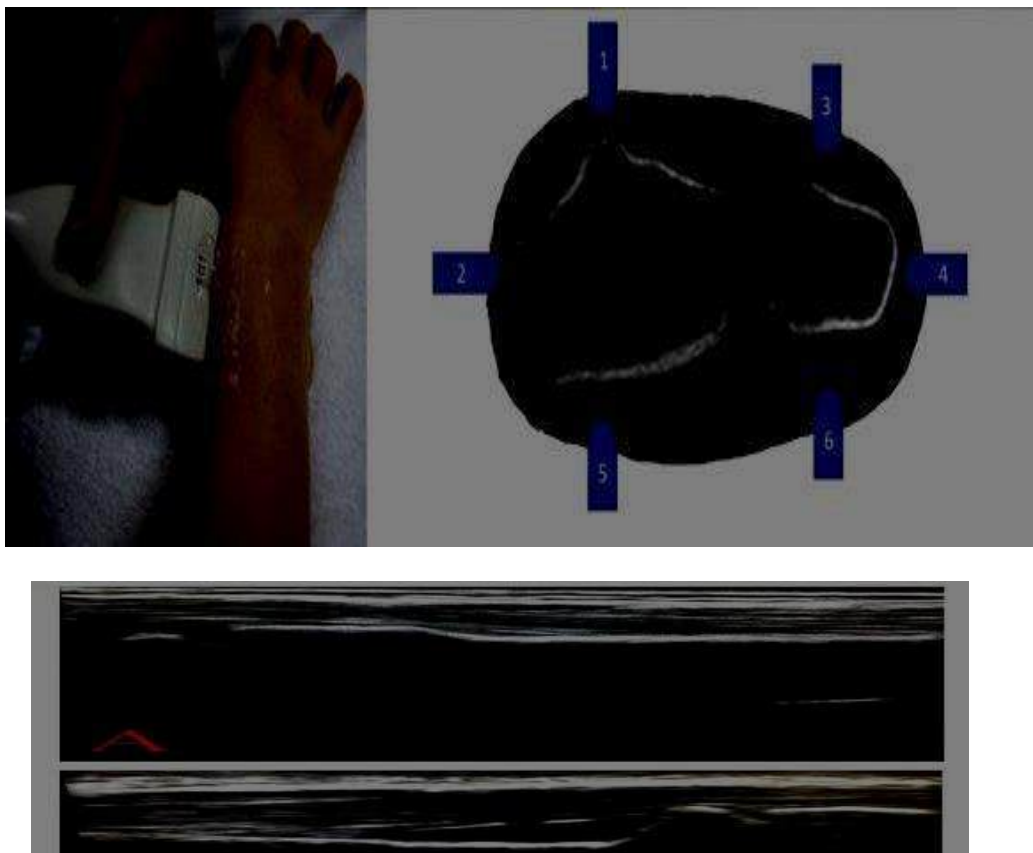




Figure-2: Fracture images taken on USG, A: Radius distal torus fracture B: Radius distal displaced fracture and edema in the soft tissue shown with arrow

Findings

Between 01.01.2021 and 31.08.2021, 87 children between the ages of 2-15 were examined. In each child, the radius and ulna bones were examined and a total of 174 bones were evaluated with ultrasound. Fractures were detected in 89 of these bones. While 37 (41.6%) nondisplaced and 30 (33.7%) displaced fractures were detected in the radius, 17 (19.1%) displaced and 5 (5.6%) nondisplaced fractures were detected in the ulna. The clinical features of the patients are shown in (Table 1).

Of the 37 radius nondisplaced fractures found on direct radiography, 35 were confirmed by USG. Of the 30 radius displaced fractures, 29 were confirmed. Of the 5 ulna nondisplaced fractures, 3 were confirmed. Of the 17 ulna displaced fractures, 16 were detected. A total of 6 fractures were not seen by USG, while 83 fractures were detected by USG (Table 2). Bones without any pathology were confirmed 100% by USG. The sensitivity rate of USG for radius displaced fractures was 96.67%, the selectivity rate was 100%, and the total accuracy rate was 98.8%. For radius nondisplaced fractures, the sensitivity was 94.59%, the selectivity rate was 100%, and the total accuracy rate was 97.7%. The sensitivity rate of USG for ulna displaced fractures was 94.1%, the selectivity value was 100%, and the total accuracy rate was 98.8%. For nondisplaced ulna fractures, the sensitivity coefficient was 60%, the selectivity coefficient was 100%, and the total accuracy rate was 97.7% (Table 3).

Tablo 2. Ultrasonografi ile kırık tespitleri bakımından doğru yanlış sayıları

	True Positive	True Negative	False Positive	False Negative
Radius non-displaced	35	59	0	2
Ulna non-displaced	3	82	0	2
Radius displaced	29	57	0	1
Ulna displaced	16	70	0	1
Total	83	219	0	6

Tablo 3. Ultrasonografi ile kırık tespitleri bakımından toplam değerler

	Radius non-displaced	Ulna non-displaced	Radius displaced	Ulna displaced	Total
Sensitivity	94.6	60	96.7	94.1	93.3
Specificity	100	100	100	100	100
Positive Predictive Value	100	100	100	100	100
Negative Predictive Value	96.15	97.6	98.3	98.6	98.4
Accuracy	97.7	97.7	98.8	98.8	98.5

Tablo-1. Hastaların klinik Özellikleri

	n	%
Female	27	31
Male	60	69
Patient with fracture	69	79.3
Fractured Bone	89	51.1
Radius fracture	47	54
Ulna fracture	2	2.3

Discussion



For these reasons, we investigated the diagnostic value of bedside USG performed by emergency physicians in detecting forearm fractures in the pediatric population presenting to the emergency department. The use of USG to detect skeletal fractures has already been described in some studies with different results (12-14).

In our study, a total of 174 bones from 87 patients were evaluated on USG, and 83 (47.7%) of them were fractured. While 66 (75.9%) of these patients were detected to have fractures in the radius and/or ulna, 21 (24.1%) patients were not detected to have fractures in the radius or ulna. On USG, 47 (54%) patients had only radius fractures, 17 (19.5%) patients had radius and ulna fractures, and 2 (2.3%) patients had only ulna fractures.

In their study, Lei Chen et al. found fractures in 48 patients. It was stated that 29 (60.4%) patients had only radius fractures, 17 (35.4%) patients had radius and ulna fractures, and 2 (4.2%) patients had only ulna fractures (11). In their study, Ackerman et al. found 77 fractures in 64 patients. 50 (78.1%) patients had only radius fractures, 1 (1.6%) patient had only ulna fractures, and 13 (20.3%) patients had both radius and ulna fractures (15). C. Herren et al. included 201 patients in their study. Fractures were found in 104 (51.7%) of 201 patients. Isolated radius fractures were detected in 89 (44.3%) patients, isolated ulna fractures in 9 (4.5%) patients, and both radius and ulna fractures were detected in 6 (3%) patients (8). When we look at our study and the results in the literature, it is seen that radius fractures are the predominant ones. We think that this is due to the fall mechanism and the forearm movement logic.

It was observed that USG had 96.67% sensitivity and 100% selectivity for radius displacement fractures and 94.59% sensitivity and 100% selectivity for radius nondisplacement. While USG showed 94.1% sensitivity for ulna displacement, it showed 60% sensitivity for ulna nondisplacement fractures. In the study conducted by C. Herren et al., 100% of 89 radius fractures were detected, while ulna fracture could not be detected in 1 (0.5%) patient (5). In the study conducted by Chen et al., 100% of 29 radius fractures were detected by USG, while ulnar styloid fracture could not be detected in 2 (1%) patients (11). In the study conducted by Ackerman et al., 72 of 77 fractures (94%) were detected, but it was not stated which type of fracture could not be detected (15). Ahmed et al. In his study, ulna fracture was not detected in 1 (2.4%) patient (6).

Similar to studies in the literature, in our study, the sensitivity and selectivity of USG for radius fractures were found to be higher than for ulna fractures. Forearm fractures in children mostly occur in the distal region. The radius is dominant and wide in the distal part of the forearm. Therefore, we think that ulna fractures are more difficult to detect on USG than radius fractures.

Conclusion

The predictive power of USG over direct radiography results in pediatric forearm traumas has been found to be at an extraordinary level. As clinical and USG experience increases in emergency physicians, we believe that USG may become a more useful, radiation-free, and inexpensive diagnostic tool in the detection of forearm trauma in children.



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Can The Systemic Inflammatory Index be Used As a Mortality Indicator in Patients Diagnosed with Acute Ischemic Stroke in The Emergency Department?

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Introduction

Acute ischemic stroke (AIS) is one of the most important health problems leading to loss of workforce in developed countries and is among the most common causes of death after cardiovascular diseases worldwide (1,2). Large artery atherosclerosis and cardioembolic causes play an important role in the etiology of acute ischemic stroke. Understanding the interactions of cells involved in inflammation is important to explain the mechanisms of atherosclerotic diseases and to develop new therapeutic strategies.

There are two types of inflammatory markers: the first type is derived from C-reactive protein (CRP) and albumin, and the second type is derived from leukocyte-related indices of inflammation such as platelet/lymphocyte (PLO) ratio, neutrophil/lymphocyte (NLO) ratio and systemic inflammatory index (SII). The SII (systemic inflammatory index) value is thought to be a prothrombotic inflammatory marker (3).

$$SII = \text{Neutrophils} * \text{Platelets}(N * P) / \text{Lymphocytes}(L)$$

Purpose

The aim of our study was to examine the relationship between in-hospital mortality and intracranial hemorrhage complications and systemic inflammatory index (SII) in patients admitted to the emergency department with AII. The secondary aim was to examine the changes in mean platelet volume (MPV), neutrophil-lymphocyte ratio (NLR), immature granulocyte (IG) percentage in addition to SII and to investigate their prognostic value on mortality.

Materials and Methods

Our study was descriptive, prospective and single-centered. Chi-square test was used to compare categorical data. The normal distribution of continuous variables was evaluated with the Kolmogorov-Smirnov test. Mann-Whitney U test was used to compare continuous variables that did not show normal distribution. In predicting mortality, ROC (receiver operator characteristic) analyses were performed for MPV, NLR, IG and SII values. In addition, ROC curves of these parameters were compared. Continuous measurements of neutrophil, lymphocyte, hemoglobin, platelet, MPV, NLR, IG and SII variables that did not show normal distribution were evaluated using "Friedman Repeated Measurement Variance Analysis". "Wilcoxon Paired Two Sample Test" was used for data found significant in the Friedman Test. Statistical significance was accepted as $p < 0.05$.

Our study was conducted on male and female patients over the age of 18 who applied to the emergency department as outpatients or by ambulance between 01.05.2022 and 01.11.2022 and were diagnosed with AIS as a result of examinations and consultations in the emergency department. A total of 232 patients applied and 130 of them (57%) were male and 42.3% (n=55 female) were included in the study. The mean age of the patients was 69.8 ± 12.3 . 102 patients were



not included in the study. Comparison of laboratory values of patients at the time of admission to the emergency department in terms of death and intracranial hemorrhage complications.

Findings

Comparison of laboratory values of patients on the 1st and 3rd days of hospitalization in terms of mortality and intracranial hemorrhage complications showed in Table 1, 2 and 3.

Table 1. Comparison of laboratory values of patients at the time of admission to the emergency department in terms of death and intracranial bleeding complications.

	After treatment					
	intracranial hemorrhage					
	Live	Dying	p*	No	Yes	p*
	Hydrangea (QID)	Hydrangea (QID)		Hydrangea (QID)	Hydrangea (QID)	
WBC (10 ³ /μl)	8,19 (3,8)	9,19 (4,8)	0,069	7,87 (5,7)	8,6 (3)	0,468
Neutrophil (10 ³ /μl)	5,32 (3,5)	5,82 (3,9)	0,142	4,8 (4,1)	5,6 (3,3)	0,340
Lymphocyte (10 ³ /μl)	1,99 (1,2)	1,66 (1,4)	0,237	2,07 (1,1)	1,78 (1,3)	0,151
Hgb (g/dL)	13,8 (2,4)	12,3 (3,3)	0,056	13,4 (2,7)	13,6 (3,2)	0,816
Platelet (10 ³ /μl)	221 (85)	243 (105)	0,518	223 (84)	225 (86)	0,781
MPV (fL)	9,8 (1,3)	10,1 (1,6)	0,144	9,8 (1,3)	10 (1,4)	0,432
NLR	2,46 (2,9)	3,63 (4,7)	0,268	2,44 (2,3)	3,01 (3,8)	0,471
IG (%)	0,4 (0,3)	0,5 (0,3)	0,207	0,4 (0,3)	0,45 (0,3)	0,566
SII (10 ³ /μl)	566 (844)	697 (1035)	0,266	496 (497)	620 (969)	0,316
QID: Interquartile difference (75%-25% difference), WBC: White Blood Cell, Hgb: Hemoglobin, MPV: Mean Platelet Volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index, SII (It is calculated by the formula: Neutrophil number x Platelet number) / Lymphocyte number. *: Mann-Whitney U test						

Table 2. Comparison of laboratory values of patients on the 1st day of hospitalization in terms of death and intracranial bleeding complications.



After treatment						
intracranial hemorrhage						
	Live	Dying		No	Yes	
	Hydrangea (QID)	Hydrangea (QID)	p*	Hydrangea (QID)	Hydrangea (QID)	p*
WBC (10 ³ /μl)	10,27 (3,9)	13,9 (8,6)	<0,001	10,26 (4,9)	11,06 (4,7)	0,046
Neutrophil (10 ³ /μl)	7,9 (3,7)	12,2 (7,4)	<0,001	7,4 (4,9)	8,66 (4,5)	0,003
Lymphocyte (10 ³ /μl)	1,69 (1,05)	0,9 (0,67)	<0,001	1,67 (1,09)	1,24 (1,3)	0,016
Hgb (g/dL)	13,5 (2,3)	11,6 (4,2)	0,02	13,4 (2,75)	13,2 (2,8)	0,677
Platelet (10 ³ /μl)	231 (81)	234 (100)	0,433	234 (80)	231,5 (80)	0,450
MPV(fL)	9,9 (1,6)	10,2 (1,5)	0,231	9,7 (1,4)	10,15 (1,6)	0,166
NLR	5,1 (4,9)	13,2 (9,5)	<0,001	4,33 (8,5)	6,9 (7,1)	<0,001
IG (%)	0,4 (0,2)	0,5 (0,22)	<0,001	0,4 (0,3)	0,5 (0,17)	0,1
SII (10 ³ /μl)	1092 (1147)	2845 (3180)	<0,001	967 (1306)	1449 (1755)	0,003
QID: Interquartile difference (75%-25% difference), WBC: White Blood Cell, Hgb: Hemoglobin, MPV: Mean Platelet Volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index, SII (It is calculated by the formula: Neutrophil number x Platelet number) / Lymphocyte number. *: Mann-Whitney U test						

Table 3. Comparison of laboratory values of patients on the 3rd day of hospitalization in terms of death and intracranial bleeding complications

After treatment						
intracranial hemorrhage						
	Live	Dying		No	Yes	
	Hydrangea (QID)	Hydrangea (QID)	p*	Hydrangea (QID)	Hydrangea (QID)	p*
WBC (10 ³ /μl)	10,37 (4,3)	14,16 (6,3)	<0,001	9,1 (6,1)	11,8 (4,8)	0,004
Neutrophil	7,63 (3,5)	12,5 (6,1)	<0,001	7,1 (5,4)	9,02 (5)	0,002



(10 ³ /μl)						
Lymphocyte	1,79 (1,2)	0,92 (0,6)	<0,001	1,74 (0,9)	1,28 (1,3)	0,055
(10 ³ /μl)						
Hgb (g/dL)	13,4 (2)	11,2 (4,17)	0,031	13,1 (2,4)	13,1 (2,4)	0,758
Platelet (10³/μl)	218 (72)	230 (84)	0,607	230 (80)	210 (77)	0,132
MPV (fL)	10 (1,4)	10,8 (1,8)	0,044	9,9 (1,5)	10,2 (1,6)	0,352
NLR	4,5 (4,48)	15,7 (21,4)	<0,001	3,96 (6,9)	6,36 (8,1)	0,002
IG (%)	0,4 (0,3)	0,7 (0,4)	<0,001	0,5 (0,3)	0,5 (0,4)	0,813
SII (10³/μl)	991 (898)	2986 (5332)	<0,001	918 (1535)	1262 (1197)	0,021

QID: Interquartile difference (75%-25% difference), WBC: White Blood Cell, Hgb: Hemoglobin, MPV: Mean Platelet Volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index, SII (It is calculated by the formula: Neutrophil number x Platelet number) / Lymphocyte number. *: Mann-Whitney U test

When the laboratory values of the patients on the first day of their hospitalization were compared in terms of death, the median WBC, neutrophil, NLR, IG and SII values of the deceased patients were statistically significantly higher than those who survived (p values <0.001), while the lymphocyte count and hemoglobin values were significantly lower (p values <0.001). 0.001 and 0.02).

When examined in terms of complications of ICH, the WBC, neutrophil count, NLR and SII values of those with ICH were statistically significantly higher (p values 0.046, 0.003, <0.001 and 0.003, respectively) and the lymphocyte count was significantly lower (p = 0.016).

When the laboratory values of the patients on the 3rd day of their hospitalization were compared in terms of death, the median WBC, neutrophil, MPV, NLR, IG count and SII values of the deceased patients were statistically significantly higher, and the lymphocyte count and hemoglobin values were significantly lower than the surviving patients.

When examined in terms of ICH complications, WBC, neutrophil count, NLR and SII values of those with ICH were statistically significantly higher. While the WBC and neutrophil counts on the 1st and 3rd days of hospitalization of the patients increased significantly during the first three days, the lymphocyte count and hemoglobin value decreased. MPV, NLR, IG and SII values increased significantly during the first three days. Comparison of ROC curves of MPV, NLR, IG and SII values on the 3rd day of hospitalization in terms of mortality (Table 4 and Figure 1).

Table 4. ROC Curve analyzes of MPV, NLR, IG and SII values in terms of mortality

AUC (p value)	Cut-off	Sensivite	(%95 CI)	Spesifite	(%95 CI)	LR+	LR-	PPV	NPV
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Mortality	MPV	0,621 (0,038)	>10,7	53,3	34,3- 71,7	74	64,3- 82,3	2,05	0,63	38,1	84,1
	NLR	0,818 (<0,001)	>7,65	70	50,6- 85,3	79	69,7- 86,5	3,33	0,38	50	89,8
	IG	0,739 (<0,001)	>0,5	69,2	48,2- 45,7	71,7	61,4- 80,6	2,45	0,43	40,9	89,2
	SII	0,808 (<0,001)	>1641	66,6	47,2- 82,7	79	69,7- 86,5	3,17	0,42	48,8	88,8
MPV: Average platelet volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index,calculated by the formula SII (Neutrophil count x Platelet count) / Lymphocyte count.											

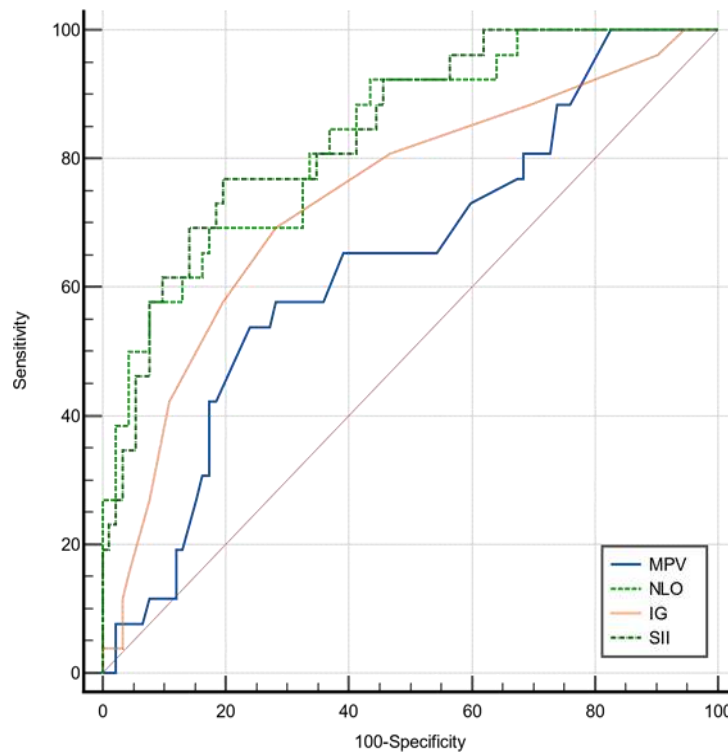


Figure 1. Comparison of ROC curves of MPV, NLR, IG and SII values on the 3rd day of hospitalization in terms of mortality

Discussion And Conclusion



As a result of our study, we believe that SII will be a valuable tool as a mortality predictor that can be used during referral and follow-up and will assist the National Institutes of Health Stroke Scale (NIHSS) score in AIS patients.

Platelet count is a parameter that reflects the production and aging of platelets and has been reported to play an important role in the development of ischemic or hemorrhagic stroke. A study conducted in 2016 showed that high platelet count increases the risk of ischemic stroke but decreases the risk of hemorrhagic stroke (4,5). In our study, platelet count did not change on the 1st and 3rd days compared to the time of admission, and in addition, no difference was found between platelet count and mortality. We believe that the reason for this result is due to the importance of platelet functions rather than the number of platelets in circulation as a prognostic factor in ischemic stroke.

Recent studies have shown that routine hematological parameters such as neutrophil-lymphocyte ratio (NLR), red blood cell distribution width (RDW) and eosinophil count are associated with the prognosis of AIS (6). NLR has emerged as an objective and easily measurable indicator of systemic inflammatory status reflecting the balance between neutrophils and lymphocytes in peripheral blood (7). A retrospective emergency room study conducted in our country in 2020 on 422 patients found that when the NLR value was >4.12 , its sensitivity in predicting first seven-day mortality was 77.8% and its specificity was 68.5% (8). In addition, a meta-analysis study showed that high NLR (at a cut-off value of 7.5-11) was a good predictor of ICH and 3-month mortality in patients with AIS (9). In our study, there was no difference between the NLR value at admission and mortality and ICH. However, there was a significant relationship between the NLR value, which changed significantly on the 1st and 3rd day of hospitalization, and mortality and ICH. Especially on the 3rd day of hospitalization, the NLR ratio (AUC=0.818) had the highest discriminatory ability in predicting mortality ($p < 0.0001$). When the NLR ratio was >7.65 , its sensitivity in predicting mortality was 70%, its specificity was 79%, its positive predictive value was 50%, its negative predictive value was 89.8%, its positive likelihood ratio was 3.33, and its negative likelihood ratio was 0.38.

Our study is the first study to show that dynamic hematological values are more valuable in AIS patients. A systematic review and meta-analysis study conducted in 2022 concluded that high MPV may be a predictor of adverse clinical outcomes of AIS, especially in patients who did not receive thrombolytics (10). In our study, there was no difference between the MPV value at the time of admission and on the 1st day of hospitalization and mortality and ICH. A significant relationship was found between the MPV value, which increased significantly from the time of admission, and mortality on the 3rd day of hospitalization. When the MPV value on the 3rd day of hospitalization was >10.7 , it was a poor predictor of mortality with 53.3% sensitivity and 74% specificity. We think that this result may be due to the fact that more than half of the patients received thrombolytic therapy, which may have affected their platelet functions. In recent years, the use of immature granulocytes (IG) has been suggested as a new indicator of systemic inflammation, and the prognostic and predictive role of IGs has been shown in relation to many diseases (11).

There are few studies investigating the relationship between IG and AII. Korkut et al. showed in their study that when $IG > 1.3$ in AII, it had 80.5% sensitivity and 93.2% specificity in predicting mortality (AUC value=0.715). In another study conducted in 2023, it was shown that the IG count in AII had a moderate predictive ability in predicting short-term mortality. In our study, there was no difference between the IG percentage at admission and mortality, but there was a significant



difference on the 1st and 3rd days of hospitalization. This difference was more pronounced on the 3rd day. The IG percentage first slightly decreased and then increased on the 3rd day. IG had a sensitivity of 69.2% and a specificity of 71% as a moderate predictor of mortality when the percentage value was >0.5 . Neurological recovery has been studied together with NLR and platelet/lymphocyte ratio in acute ischemic stroke, but SII was not found significant (12). Our study is a pioneering study examining the effect of SII on mortality in AII.

A study conducted in our country in 2023 showed that SII could be a good biomarker in both the diagnosis and the prediction of in-hospital mortality in acute stroke patients (13). However, the majority of AII patients in this study consisted of patients who received medical treatment. In our study, while there was no difference between SII at the time of admission and mortality, there was a significant difference on the 1st and 3rd days of hospitalization. SII increased on the 1st day compared to the time of admission, partially decreased on the 3rd day, but was found to be significantly higher than the time of admission. The SII on the 3rd day of hospitalization had a good ability to predict mortality when it was $>1641 \times 103/\mu\text{l}$ (AUC=0.808) and its sensitivity was 66.6% and specificity was 79%. To our knowledge, our study is the first to investigate SII in patients receiving both IV-tPA and MT. In our study, SII first showed a significant increase and then a slight decrease in stroke patients.

Conclusion

Our study is a pioneering study that emphasizes the dynamics of MPV, NLR, IG and SII over time in AII. SII index is a good prognostic marker in predicting in-hospital mortality on the 3rd day of hospitalization in patients with acute ischemic stroke.

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Investigation of The Effect of Electrocardiography Findings on 30-Day Mortality in Patients Applied to the Emergency Department for Syncope

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Introduction

Syncope is a temporary loss of consciousness due to transient global cerebral hypoperfusion characterized by rapid onset, short duration, and spontaneous full recovery (1). Approximately 1% of patients presenting to the emergency department are admitted due to syncope (2,3). The most common known causes of syncope are vasovagal (21.2%), cardiac (9.5%), and orthostatic (9.4%) syncope, respectively. The cause of the majority of syncope (36.6%) is unknown (4). There are multiple scoring systems developed for the management of patients presenting to the emergency department with syncope. These include Risk Stratification of Syncope in the Emergency Department (ROSE) (5), San Francisco Syncope Guidelines (SFSK) (6), Evaluation of Guidelines in Syncope Study (EGSYS) syncope rules (7), Osservatorio Epidemiologico della Sincope nel Lazio (OESIL) syncope rules (8), and Canadian syncope rules (9).

However, these scoring systems have not been able to establish a consensus on electrocardiographic (ECG) findings. In the ROSE syncope rules, the presence of a pathological Q wave outside the D3 derivation on the ECG and bradycardia were taken as criteria (5). SFSK (6), EGSYS syncope rules (7), and OESIL syncope rules (8) took abnormal ECG as criteria, but they did not define which abnormal ECGs had a worse prognosis in their scoring systems. In the Canadian syncope rules, abnormal QRS axis, QRS duration exceeding 130 msec, and QT length exceeding 480 msec are specified as criteria (9). These syncope rules were tried to be developed based on the short- and long-term morbidity of the patients, and it was stated at the end of the study that they needed contributions from new studies.

Purpose

In our study, we aimed to contribute to the literature by investigating the mortality rates of patients over the age of 18 who applied to the emergency department due to syncope within a 30-day period according to ECG findings.



Methods

Our study is a prospective, observational and single-center study.

A total of 217 patients, 116 male and 101 female, aged 18 years and over, were included in the study from 387 patients who applied to the emergency department with a complaint of loss of consciousness. Patients who had syncope due to hypoglycemia, those who had epileptic seizures, those who were intoxicated, those who consumed alcohol or substances, those who had syncope secondary to head trauma, patients who had cerebrovascular disease, and patients who had gastrointestinal bleeding were excluded from the study because the cause of syncope was known. A total of 170 patients were excluded from the study, including those who did not agree to participate in the study. Patients or their relatives who were included in the study were contacted on the 30th day and the patients were followed up. It was questioned whether mortality had developed.

Findings

Of the 217 patients included in our study, 53.5% (n=116) were male, 46.5% (n=101) were female, and the mean age was 46.41 ± 19.42 . It was observed that patients with bundle branch block, arrhythmia, QRS prolongation, QT prolongation and AV block in their ECGs had higher mortality rates ($p < 0.05$, $p < 0.001$), while patients with normal sinus rhythm had lower mortality rates ($p < 0.05$). It was observed that there was no significant difference in the one-month mortality of patients with pathological Q waves, ST-T changes and ventricular hypertrophy in their ECGs ($p > 0.05$). The sum of the highest R and deepest S waves in the chest derivations of the patients ECGs was calculated, and a significant relationship was found between the increase in this value and the increase in patient mortality ($p = 0.002$).

	Alive		Death		Total
Normal Sinus Rhythm	n	%	n	%	N
No	90	92,8	7	7,2	97
Yes	119	99,2	1	0,8	120
	Alive		Death		Total
Atrioventricular Block	n	%	n	%	N
No	205	96,7	7	3,3	212

Alive Death Total

Yes	4	80	1	20	5							
	Alive		Death		Total							
Ventricular Hypertrophies	n	%	n	%	N							
No	191	96,5	7	3,5	198							
Yes	18	94,7	1	5,3	19							
	Alive		Death		Total							
QT Interval Prolongation	n	%	n	%	n							
No	202	98,5	3	1,5	205							
Yes	7	58,3	5	41,7	12							
QRS Distance Prolongation						n	%	n	%	n	%	P
No						208	97,2	6	2,8	214	100	.000***
Yes						1	33,3	2	66,7	3	100	
						Alive		Death		Total		
Pathological Q						N	%	N	%	N	%	P
No						196	93,8	7	3,4	203	100	.484
Yes						13	92,9	1	7,1	14	100	
						Alive		Death		Total		
Pathological ST-T Change						N	%	N	%	N	%	P
No						162	97,6	4	2,4	166	100	.072



Yes	47	92,2	4	7,8	51	100	
	Alive		Death		Total		
Arrhythmia	N	%	N	%	N	%	P
No	159	98,1	3	1,9	162	100	.014
Yes	50	90,9	5	9,1	55	100	*
	Alive		Death		Total		
Branch Blocks	N	%	n	%	N	%	P
No	195	97,5	5	2,5	200	100	.001
Yes	14	82,4	3	17,6	17	100	***

	Mortality	Average	Average Rank	Total of Ranks	U	P
R+S ^a	Sağ	21,63	108,07	22586,00	294,5	.002**
	Ölüm	24,63	133,38	1067,00		

Discussion

In the study conducted by Quinn et al. in 2011, it was observed that 62.2% of the patients had NSR on their ECGs (11). The NSR rate of the participants in our study was found to be 55.3%, similar to the literature. According to the results obtained from our study, the mortality rate of those without NSR on their ECGs was statistically significantly higher than those with NSR.

In studies on syncope in the literature, the AV block rate on the ECGs was determined as 10% and 13% (10,12). The rate of those with AV block in our study was found to be 2.3%. The mortality rate of the participants with AV block in our study was statistically significantly higher than those without.

In one study, the rate of patients with QT prolongation was found to be 2.1% (10). Another study found that QTc interval prolongation may be associated with high mortality (14). In our study, the rate of patients with QT prolongation was found to be 5.5%, similar to the literature averages. The mortality rate seen in the participants with QT prolongation in our study was found to be statistically significantly higher than those without.



In the study conducted by Reed et al., the rate of patients with QRS prolongation in the derivation and validation groups created was found to be 5.5% and 8.1%, respectively (5). The rate of patients with QRS prolongation in our study was found to be 1.4%. We believe that the reason for our lower rate of patients with QRS prolongation compared to the study in the literature is that we did not include QRS prolongations due to myocardial infarction-related arrhythmia, intoxication or other reasons and that they were clearly causing syncope. The mortality rate seen in the patients with QRS prolongation in our study was statistically significantly higher than those without.

In syncope studies in the literature, arrhythmia rates were found to be 3.7% and 12% (15,16). In our study, arrhythmia was seen in 25.3% of the patients. The mortality rate of the participants in our study with arrhythmia on their ECGs was statistically significantly higher than those without.

In a study investigating patients presenting to the emergency department with syncope, the rate of those with right bundle branch block was found to be 13% and the rate of those with left bundle branch block was found to be 13.8% (10). In the study by Quinn et al., 9.3% of 684 patients had left bundle branch block and 2.9% had right bundle branch block (13). Similar to the literature, right and/or left bundle branch block was seen in 7.8% of our patients. The mortality rate of the participants in our study with bundle branch blocks on their ECGs was statistically significantly higher than those without.

In a study conducted in 2019, the rate of patients with left ventricular hypertrophy was determined as 1.4% according to the ECGs of patients who applied to the emergency room due to syncope (10). In the study conducted by Kapoor et al., ventricular hypertrophy was observed in 12% of the patients (16). In our study, the rate of patients with right or left ventricular hypertrophy was found to be 8.6%. There was no statistically significant difference in terms of mortality between the participants in our study who had and did not have ventricular hypertrophy in their ECGs.

In the study conducted by Reed et al., the rate of patients with pathological Q waves in the derivation and validation groups was found to be 24.3% and 30.4%, respectively (5). In the study conducted by Quinn et al., where patients who applied to the emergency room due to syncope were investigated, pathological Q waves were observed in 6.2% of the patients (11). In our study, similar to the literature, pathological Q waves were observed in 6.5%. There was no statistically significant difference in mortality between the participants in our study who had and did not have pathological Q waves.

In the study conducted by Quinn et al., ST segment changes were observed in 2.1% of the patients (11). In the study conducted by Kapoor et al., non-specific ST changes were observed in 18% of the patients (16). ST-T changes were observed in 23.5% of the patients in our study. We believe that the reason why the rate in our study is higher compared to the rates in the literature is that we evaluated a larger patient group in terms of ST segment changes and T wave abnormalities. There was no statistically significant difference in mortality between the participants in our study who had ST-T changes and those who did not.

Conclusion

It was determined that patients with bundle branch block, arrhythmia, QRS prolongation, QT prolongation, AV block in their ECGs had higher mortality rates, while patients with normal sinus rhythm had lower mortality rates.

It was observed that the high R+S value, which has never been studied before, was directly proportional to mortality.

In conclusion, ECG evaluation is important in the evaluation of syncope patients, but it is not sufficient alone. The importance of the patient's history, physical examination findings, comorbidities, and the clinician's opinion about the patient should not be forgotten.

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ACİL SERVİSTE KADIN SAĞLIK ÇALIŞANLARINA YÖNELİK ŞİDDET

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Kadın sağlık çalışanlarına yönelik şiddet, özellikle acil servislerde, dünya genelinde önemli bir sorun olarak öne çıkmaktadır. Bu konuda yapılan araştırmalar, kadın sağlık çalışanlarının hem hastalardan hem de çalışma arkadaşlarından gelen şiddete daha sık maruz kaldığını göstermektedir.

Kadın sağlık çalışanlarının acil servislerde karşılaştığı şiddetin toplumsal cinsiyet rollerinden kaynaklanan dengesizliklerle bağlantılı olduğu düşünülmektedir. Kadınlar genellikle daha düşük kurumsal ve mesleki pozisyonlarda yer aldıkları için, fiziksel, sözlü ve cinsel taciz gibi şiddet türlerine daha fazla maruz kalabilmektedir.

Almanya'da bir üniversite hastanesinde 2014-2023 yılları arasında gerçekleşen şiddet olaylarının incelendiği bir çalışmada toplam 859 şiddet olayı kaydedilmiş ve en sık şiddete maruz kalan kişilerin hemşireler olduğu belirtilmiştir. Çalışmada %46 ile en sık sözlü saldırı tespit edilmişse de %24 oranında fiziksel saldırı kaydedilmiştir.

Başka bir çalışmada hemşireler ve hekimler arasında cinsiyete dayalı şiddet olayları incelenirken hastalardan kaynaklanan şiddet olayları ile birlikte çalışanlar arasındaki şiddet olaylar da incelenmiştir. Faillerin %65inin erkek olduğu ve çalışanlar arasındaki şiddetin erkeklerin kadınlara ve kadınların kadınlara yönelik şiddet eğilimi olduğu görülmüştür.

Cinsiyet temelli şiddetin özellikle kadınların daha savunmasız olduğu durumlarda, yalnız çalıştıklarında ya da gece vardiyasında daha yaygın hale geldiği bilinmektedir. Şiddete maruz kalmalarına rağmen ekonomik ve mesleki kaygılar ya da şiddeti rapor etmenin uzun ve zahmetli süreçlere yol açabileceği endişesi raporlama oranlarını azaltmaktadır.

Kadın sağlık çalışanlarına yönelik şiddetin ardında yatan temeller, şiddetin yeterince görünür olmaması ve raporlanmaması, kadın çalışanların yeterince değer görmemesi, kadınların karar mekanizmasına sınırlı erişimi, toplumsal cinsiyet eşitliği ile ilgili politikaların yetersizliği olabilmektedir.

Güç dengesizliğini çözmek için cinsiyet dengesi sağlanmış liderlik rollerine ve toplu eylemlerle kadın sağlık çalışanlarının güçlendirilmesine yönelik önlemler alınması gerekmektedir. Ayrıca, işyerinde toplumsal cinsiyet eşitliği ve güçlendirme politikalarının, liderler tarafından desteklenmesi önemlidir. Bu bağlamda, kadın sağlık çalışanlarına yönelik şiddetin önlenmesi için eğitim programları, etkili güvenlik önlemleri ve kolay uygulanabilir





Evaluation of patients diagnosed with pediatric supracondylar humerus fractures in the emergency department of a tertiary hospital

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Introduction: Supracondylar humerus fractures (ScHFs) are common reasons for emergency department (ED) visits in children. These fractures account for approximately 60% of all elbow fractures in children (1). The ED plays a critical role in diagnosing the fracture and accurately assessing it clinically to initiate treatment. In most pediatric cases, fractures can be evaluated using only plain radiography, and the type of fracture can be determined using the Gartland classification. The necessity for surgical treatment can be applied according to the severity of the fracture (2). The Gartland classification is divided into four types: type I (non-displaced), type II (displaced but with an intact posterior cortex), type III (completely displaced with posteromedial or posterolateral displacement), and type IV (displaced with multidirectional instability due to circumferential periosteal disruption). Gartland type II, III, and IV fractures are generally managed with closed reduction and surgical stabilization (3). Possible complications of ScHFs include nerve and vascular injuries, compartment syndrome, malunion, and functional impairments such as reduced range of motion and angular deformities. Malunion of ScHFs and physeal closure can lead to progressive deformity in the elbow, which can result in generally poor functional outcomes (4). Successful treatment of pediatric ScHF depends on achieving and maintaining an acceptable reduction until the fracture heals, thereby preventing potential complications (5). In this study, we aimed to evaluate the predisposing factors (age, gender), demographic characteristics, fracture type, presence of neurovascular injuries, and frequency of surgical intervention in pediatric patients with ScHFs presenting to the ED of a tertiary hospital.



Material Method: Children who presented to the ED of Ankara Etlik City Hospital between January and July 2024 and were diagnosed with ScHFs were included in this study. Data on age, gender, time elapsed from the occurrence of trauma to the ED visit, type of trauma (fall from own height, fall from a height, traffic accident, and other causes), mechanism type (low, moderate, high), side of the affected limb (right/left), fracture type (open/closed), presence of neurological deficit, presence of vascular deficit, fracture type according to the Gartland classification (type I, II, III, and IV), need for computed tomography, need for reduction (none, open, closed), and treatment method (conservative/surgical) were retrospectively obtained from the database. All patients under 18 years of age who presented to this hospital with a diagnosis of ScHFs were included in the study. Patients with incomplete data (missing clinical, physical examination findings, or imaging), those over 18 years of age, polytrauma patients, patients with pathological or recurrent fractures in the elbow region, and those with psychomotor dysfunctions or neuromuscular disorders were excluded from the study. SPSS v. 22.0 software package was used for the statistical analysis of the data (version 22.0; SPSS, Inc, Chicago, IL, USA). Descriptive statistics were presented as number, mean $\pm$ standard deviation, median (25th-75th percentiles), and percentage (%) values. A p value of <0.05 was considered statistically significant in all tests.

Results: A total of 219 patients were included in our study, consisting of 120 (54.8%) males and 99 (45.2%) females. The demographic and clinical characteristics of pediatric patients with ScHFs are shown in Table 1. The average age of all patients was calculated as 6.89 ± 3.09 years. The average time to presentation was found to be 5.72 ± 8.22 hours. Of the patients included in our study, 125 (57.1%) presented to the ED due to falling from their own height, 39 (17.8%) due to falling from a height, 4 (1.8%) due to a traffic accident, and 51 (23.3%) due to other traumas. A low-intensity mechanism was present in 101 (46.1%) patients, a moderate-intensity mechanism in 90 (41.1%) patients, and a high-intensity mechanism in 28 (12.8%) patients. The



left extremity was affected in 122 (55.7%) pediatric patients. ScHFs were identified as closed in 215 (98.2%) patients and open in 4 (1.8%) patients. Neurovascular deficits were identified in 19 (8.7%) patients. Among the patients, 77 (35.2%) had a Type III fracture, 71 (32.4%) had a Type I fracture, 43 (19.6%) had a Type II fracture, and 28 (12.8%) had a Type IV fracture, as shown in Figure 1. It was observed that 16 patients required a CT scan. Reduction was not necessary for 165 (75.3%) patients, while 44 (20.1%) patients underwent closed reduction, and 10 (4.6%) patients underwent open reduction. Conservative treatment was applied to 95 (43.4%) patients, while surgical treatment was applied to 124 (56.6%) patients.

Discussion: ScHFs, which are common reasons for ED visits, require early diagnosis and effective treatment by emergency clinicians, and timely orthopedic consultations are crucial for preventing potential complications. The data we obtained are consistent with the literature, showing that these fractures are more frequently seen in males, patients under the age of 7, and in the left extremity (6). This suggests that the non-dominant side of the patients is more commonly affected by trauma. According to the literature, neurovascular injuries occur in approximately 15% of displaced ScHFs (7). In our study, neurovascular injury was observed in approximately 8.7% of all patients. We found that more than half of our patients sustained fractures through a low-intensity mechanism. A significant portion of the patients (54.3%) with non-displaced fractures (some Gartland type I and type II fractures) were treated conservatively. The literature also emphasizes that surgical fixation is indicated in most Gartland type II and III ScHFs to prevent malunion (8). Similarly, in our study, we found that a significant number of type II fractures required surgical treatment, in line with the literature.



It was observed that a small number of patients underwent computed tomography to determine the appropriate treatment method. We believe that this was mostly needed for assessing whether surgical treatment was required, particularly in lower-grade fractures. Closed reduction was attempted by the orthopedic surgeon in the emergency department in 44 patients, and 10 patients underwent open reduction surgery. Our study supports the literature in that the majority of supracondylar fractures require surgical treatment (9).

Conclusion: ScHFs are the most common type of fracture around the elbow in the pediatric population. The diagnosis of these fractures can be uncertain, and if missed, they can lead to vascular, structural, or neurological injuries. The rapid diagnosis and treatment of these injuries are crucial for improving clinical outcomes. Emergency physicians need to be vigilant against this orthopedic trap to avoid missing this diagnosis.

Keywords: emergency department, paediatrics, supracondylar humerus fractures

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Table 1: Demographic and clinical characteristics of patients



Trauma type	N	%
Falling from one's own level	125	57.1%
Falling from height	39	17.8%
Traffic accident	4	1.8%
Others	51	23.3%
Mechanism type		
Low	101	46.1%
Middle	90	41.1%
High	28	12.8%
Extremity side		
Right	97	44.3%
Left	122	55.7%
Fracture type		
Closed	215	98.2%
Open	4	1.8%
Deficit		
None	200	91.3%
Available	19	8.7%
Fracture type according to Gartland classification		
Tip 1	71	32.4%
Tip 2	43	19.6%
Tip 3	77	35.2%
Tip 4	28	12.8%
CT need		
None	203	92.7%
Available	16	7.3%
Reduction		
None	165	75.3%
Closed	44	20.1%
Open	10	4.6%
Treatment		
Conservative	95	43.4%
Surgical	124	56.6%

CT: Computerized Tomography

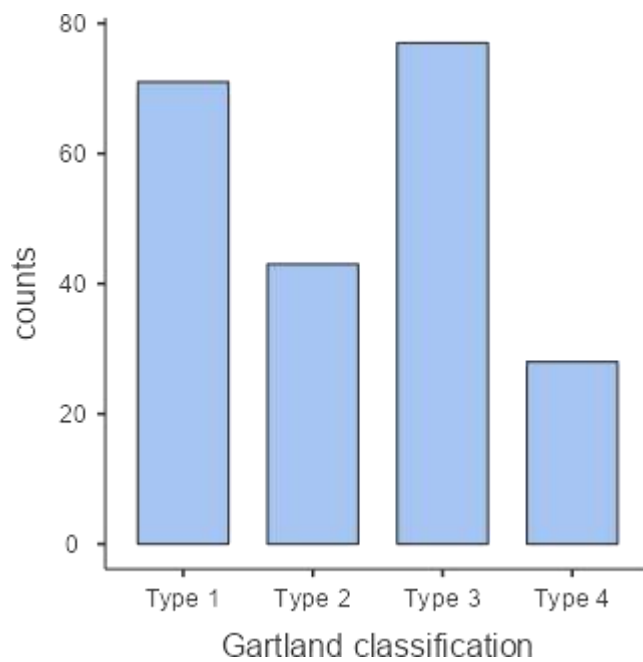


Figure 1: Fracture type according to Gartland classification



Spontaneous Angiomyolipoma Hemorrhage: Wunderlich Syndrome; A Rare Cause of Abdominal Pain

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Background

Angiomyolipomas (AMLs) are benign neoplasms of the kidney, consisting of a variety of tissues resembling blood vessels, smooth muscle, and fat tissue.(1) AMLs have been reported in 0.13% to 2.2% of asymptomatic adults undergoing imaging.(2,3) In a population-based study of approximately 18,000 asymptomatic adults undergoing renal ultrasound, renal AMLs were detected in 24 patients (0.13%).(2) Another study involving around 2,000 potential kidney donors who underwent computed tomography scans found renal AMLs in 43 patients (2.2%). (3) The vast majority of renal AMLs are asymptomatic.(4) Hemorrhage is the most feared complication of AMLs, leading to pain, anemia, and sometimes hemorrhagic shock. (5) Renal AMLs may rupture into subcapsular and perirenal spaces, making them the most common cause of non-traumatic renal hemorrhage known as Wunderlich syndrome. (6) AMLs larger than 6 cm are more likely to hemorrhage. (7)

Patients with AML who develop active hemorrhage should undergo resuscitative measures if they are unstable, and, if possible, angiography and selective arterial embolization should be performed immediately to control the bleeding.

Aim

This case report aims to present a 65-year-old geriatric patient who was admitted to the emergency department with abdominal pain and syncope and was diagnosed with spontaneous renal hemorrhage due to an AML.

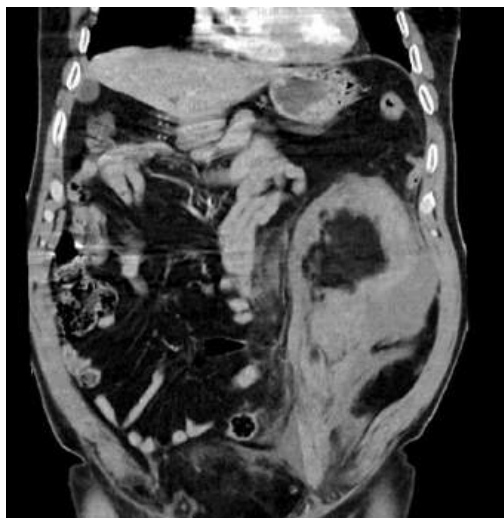
Case

A 65-year-old male .No known medical history aside from benign prostatic hyperplasia. Complaints of left lower quadrant pain and syncope. Blood pressure: 130/80 mmHg, Pulse: 90 bpm, ECG: Normal sinus rhythm, Rectal exam: Normal. Initial hemoglobin: 14.4 g/dL, follow-up hemoglobin after 2 hours: 12.7 g/dL .

Imaging revealed a likely spontaneous hemorrhage from an angiomyolipoma in the lower pole of the left kidney, leading to a retroperitoneal hematoma. (Figures 1–6)



Figures 1-2. Bilateral renal cysts and a left renal AML extending into the retroperitoneum were observed





Figures 3-4. Bilateral renal cysts and a left renal AML extending into the retroperitoneum were observed



Figures 5-6. Bilateral renal cysts and a left renal AML extending into the retroperitoneum were observed

Urology consultation was sought. Emergency angiographic embolization was recommended.

Conclusion

In patients presenting to the emergency department with non-traumatic abdominal pain and syncope, spontaneous renal hemorrhage secondary to AML, or Wunderlich syndrome, should be considered in the differential diagnosis.

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Hidden threat: Intracranial Dermoid Cyst Rupture in an Emergency Setting Mimicking Respiratory Infection

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Background and Aim

Dermoid cysts are congenital anomalies that arise between the third and fifth weeks of embryogenesis (1). They typically grow slowly and constitute 0.4-0.6% of all intracranial tumors (2). These cysts may contain varying amounts of ectodermal derivatives such as apocrine glands, sweat and sebaceous glands, squamous epithelium, and even teeth (3).

Intracranial dermoid cysts can be incidentally detected during central nervous system imaging performed for nonspecific complaints. When dermoid cysts rupture, the release of their contents into the ventricles, subarachnoid, and subdural spaces can cause headaches, seizures, neuromotor deficits, chemical meningitis, cerebral ischemia, and even death. Emergency situations resulting from the rupture of these cysts are rarely reported in the literature, making them difficult to diagnose (4).

In this case report, the diagnosis and clinical management of a 34-year-old female patient who presented to the emergency department with symptoms of an upper respiratory tract infection, later diagnosed with a ruptured intracranial dermoid cyst, are discussed.



Case Presentation

A 34-year-old female patient with no history of chronic illness or acute trauma presented to the emergency department with complaints of persistent sore throat and fever despite the use of oral antibiotics and oral antipyretic medications. On physical examination, her blood pressure was 120/70 mmHg, oxygen saturation was 98%, pulse was 100 bpm, and temperature was 37.8°C. The tonsils were bilaterally hypertrophic and cryptic in appearance. No significant findings were noted on examination of other systems.

The patient was administered 1000 mg of paracetamol intravenously as an antipyretic. Despite this treatment, the patient's fever persisted, and she began to complain of a headache. Further diagnostic tests were planned.

Laboratory results revealed WBC: 30,370/mcL, NEU: 27,330/mcL, Hgb: 10.6 g/dL, CRP: 255.4 mg/dL, and procalcitonin: 62.94 µg/L.

During follow-up in the emergency department, the patient developed confusion and vomiting. Subsequent physical examinations revealed signs of meningeal irritation, prompting the decision to perform a computed tomography (CT) scan of the central nervous system.

Imaging revealed a non-calcified lesion with soft tissue components and fat density located in the right sphenoid region, as well as multiple fat density lesions scattered throughout the brain



parenchyma. These findings suggested a ruptured dermoid cyst, and a consultation with neurosurgery was requested. Following the neurosurgical evaluation, it was decided to proceed with surgery. According to the operative reports, the tumor capsule was found to be highly adherent to the posterior branches of the MCA, the medial optic nerve, the oculomotor nerve, and the carotid branches. Pathological examination of the excised mass revealed mucoid, yellow, and white tissues containing sebaceous glands, squamous epithelium, and colloid-containing thyroid follicles. The patient was discharged in good health after surgery and scheduled for follow-up outpatient visits.

Conclusions

This case demonstrates that the rare but potentially highly morbid and fatal rupture of an intracranial dermoid cyst can be detected in a patient presenting to the emergency department with symptoms of an upper respiratory tract infection. This emphasizes the need for clinicians to consider the connection between presenting symptoms and rare neurological pathologies. Detailed clinical histories and careful neurological examinations are crucial in identifying unexpected diagnoses in emergency settings. Early imaging and neurological evaluation in such cases can significantly improve prognosis.

Discussion

Intracranial dermoid cysts are generally slow-growing and often asymptomatic lesions. They develop during embryonic development due to ectodermal remnants embedded in brain tissue, eventually containing structures like sweat glands, sebaceous glands, and teeth (1). However, in rare cases, rupture of these cysts can lead to serious clinical outcomes. When rupture occurs, the



cyst contents spread into the subarachnoid space or ventricles, leading to symptoms such as meningitis, seizures, headaches, and neuromotor deficits (2).

In this case, diagnosing a ruptured dermoid cyst in a patient presenting to the emergency department with non-specific upper respiratory tract infection symptoms posed a significant diagnostic challenge for clinicians. The non-specific nature of dermoid cyst symptoms can lead to these pathologies being overlooked in emergency departments (3). As stated in the literature, the overlap of symptoms with those of respiratory infections may delay diagnosis, and the clinical status of patients with ruptured dermoid cysts can rapidly deteriorate (4).

Advanced imaging techniques, such as computed tomography (CT) and magnetic resonance imaging (MRI), are critical in making the diagnosis. In this case, CT imaging revealed fat-density lesions distributed within the brain parenchyma, confirming the diagnosis of a ruptured dermoid cyst radiologically. Early surgical intervention after imaging facilitated the complete excision of the lesion, which positively impacted the patient's prognosis (1,2).

The rupture of dermoid cysts should not be overlooked in emergency departments, highlighting the importance of a multidisciplinary approach. Although rare, neurological evaluation and early imaging play a crucial role in diagnosing these cysts. This case underscores the importance of clinicians in emergency settings performing a thorough differential diagnosis, even in patients presenting with common symptoms such as those of an upper respiratory tract infection.

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Can The Systemic Inflammatory Index be Used As a Mortality Indicator in Patients Diagnosed with Acute Ischemic Stroke in The Emergency Department? Fatma Hancer Celik¹ , Taner Sahin¹ , Soner Kilic¹ , Ibrahim Toker¹ , Ahmet Furkan Nalbant¹ , Ismail Kürtüncü¹

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Introduction

Acute ischemic stroke (AIS) is one of the most important health problems leading to loss of workforce in developed countries and is among the most common causes of death after cardiovascular diseases worldwide (1,2). Large artery atherosclerosis and cardioembolic causes play an important role in the etiology of acute ischemic stroke. Understanding the interactions of cells involved in inflammation is important to explain the mechanisms of atherosclerotic diseases and to develop new therapeutic strategies.

There are two types of inflammatory markers: the first type is derived from C-reactive protein (CRP) and albumin, and the second type is derived from leukocyte-related indices of inflammation such as platelet/lymphocyte (PLO) ratio, neutrophil/lymphocyte (NLO) ratio and systemic inflammatory index (SII). The SII (systemic inflammatory index) value is thought to be a prothrombotic inflammatory marker (3).

$$SII = \text{Neutrophils} * \text{Platelets}(N * P) / \text{Lymphocytes}(L)$$

Purpose

The aim of our study was to examine the relationship between in-hospital mortality and intracranial hemorrhage complications and systemic inflammatory index (SII) in patients admitted to the emergency department with AIS. The secondary aim was to examine the changes in mean platelet volume (MPV), neutrophil-lymphocyte ratio (NLR), immature granulocyte (IG) percentage in addition to SII and to investigate their prognostic value on mortality.

Materials and Methods



Our study was descriptive, prospective and single-centered. Chi-square test was used to compare categorical data. The normal distribution of continuous variables was evaluated with the Kolmogorov-Smirnov test. Mann-Whitney U test was used to compare continuous variables that did not show normal distribution. In predicting mortality, ROC (receiver operator characteristic) analyses were performed for MPV, NLR, IG and SIİ values. In addition, ROC curves of these parameters were compared. Continuous measurements of neutrophil, lymphocyte, hemoglobin, platelet, MPV, NLR, IG and SIİ variables that did not show normal distribution were evaluated using “Friedman Repeated Measurement Variance Analysis”. “Wilcoxon Paired Two Sample Test” was used for data found significant in the Friedman Test. Statistical significance was accepted as $p < 0.05$.

Our study was conducted on male and female patients over the age of 18 who applied to the emergency department as outpatients or by ambulance between 01.05.2022 and 01.11.2022 and were diagnosed with AIS as a result of examinations and consultations in the emergency department. A total of 232 patients applied and 130 of them (57%) were male and 42.3% (n=55 female) were included in the study. The mean age of the patients was 69.8 ± 12.3 . 102 patients were not included in the study. Comparison of laboratory values of patients at the time of admission to the emergency department in terms of death and intracranial hemorrhage complications.

Findings

Comparison of laboratory values of patients on the 1st and 3rd days of hospitalization in terms of mortality and intracranial hemorrhage complications showed in Table 1, 2 and 3.

Table 1. Comparison of laboratory values of patients at the time of admission to the emergency department in terms of death and intracranial bleeding complications.

			After treatment		
			intracranial hemorrhage		
Live	Dying	p*	No	Yes	p*

 4th INTERNATIONAL CONGRESS ON EMERGENCY MEDICINE  SONO-EM  1st INTERNATIONAL SONOCRITIC CONGRESS ON EMERGENCY MEDICINE  23-26 OCTOBER 2024 RIXOS SUNGATE HOTEL, ANTALYA/TÜRKİYE						
	Hydrangea (QID)	Hydrangea (QID)		Hydrangea (QID)	Hydrangea (QID)	
WBC ($10^3/\mu\text{l}$)	8,19 (3,8)	9,19 (4,8)	0,069	7,87 (5,7)	8,6 (3)	0,468
Neutrophil ($10^3/\mu\text{l}$)	5,32 (3,5)	5,82 (3,9)	0,142	4,8 (4,1)	5,6 (3,3)	0,340
Lymphocyte ($10^3/\mu\text{l}$)	1,99 (1,2)	1,66 (1,4)	0,237	2,07 (1,1)	1,78 (1,3)	0,151
Hgb (g/dL)	13,8 (2,4)	12,3 (3,3)	0,056	13,4 (2,7)	13,6 (3,2)	0,816
Platelet ($10^3/\mu\text{l}$)	221 (85)	243 (105)	0,518	223 (84)	225 (86)	0,781
MPV (fL)	9,8 (1,3)	10,1 (1,6)	0,144	9,8 (1,3)	10 (1,4)	0,432
NLR	2,46 (2,9)	3,63 (4,7)	0,268	2,44 (2,3)	3,01 (3,8)	0,471
IG (%)	0,4 (0,3)	0,5 (0,3)	0,207	0,4 (0,3)	0,45 (0,3)	0,566
SII ($10^3/\mu\text{l}$)	566 (844)	697 (1035)	0,266	496 (497)	620 (969)	0,316
QID: Interquartile difference (75%-25% difference), WBC: White Blood Cell, Hgb: Hemoglobin, MPV: Mean Platelet Volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index, SII (It is calculated by the formula: Neutrophil number x Platelet number) / Lymphocyte number. *: Mann-Whitney U test						

Table 2. Comparison of laboratory values of patients on the 1st day of hospitalization in terms of death and intracranial bleeding complications.

After treatment					
intracranial hemorrhage					
Live	Dying	p*	No	Yes	p*
Hydrangea (QID)	Hydrangea		Hydrangea	Hydrangea	

 4th INTERNATIONAL CONGRESS ON EMERGENCY MEDICINE  SONO-EM  1st INTERNATIONAL SONOCRITIC CONGRESS ON EMERGENCY MEDICINE  23-26 OCTOBER 2024 RIKOS SUNGATE HOTEL ANTALYA/TURKEY						
	(QID)				(QID)	
WBC ($10^3/\mu\text{l}$)	10,27 (3,9)	13,9 (8,6)	<0,001		10,26 (4,9)	11,06 (4,7)
Neutrophil ($10^3/\mu\text{l}$)	7,9 (3,7)	12,2 (7,4)	<0,001		7,4 (4,9)	8,66 (4,5)
Lymphocyte ($10^3/\mu\text{l}$)	1,69 (1,05)	0,9 (0,67)	<0,001		1,67 (1,09)	1,24 (1,3)
Hgb (g/dL)	13,5 (2,3)	11,6 (4,2)	0,02		13,4 (2,75)	13,2 (2,8)
Platelet ($10^3/\mu\text{l}$)	231 (81)	234 (100)	0,433		234 (80)	231,5 (80)
MPV (fL)	9,9 (1,6)	10,2 (1,5)	0,231		9,7 (1,4)	10,15 (1,6)
NLR	5,1 (4,9)	13,2 (9,5)	<0,001		4,33 (8,5)	6,9 (7,1)
IG (%)	0,4 (0,2)	0,5 (0,22)	<0,001		0,4 (0,3)	0,5 (0,17)
SII ($10^3/\mu\text{l}$)	1092 (1147)	2845 (3180)	<0,001		967 (1306)	1449 (1755)
QID: Interquartile difference (75%-25% difference), WBC: White Blood Cell, Hgb: Hemoglobin, MPV: Mean Platelet Volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index, SII (It is calculated by the formula: Neutrophil number x Platelet number) / Lymphocyte number. *: Mann-Whitney U test						

Table 3. Comparison of laboratory values of patients on the 3rd day of hospitalization in terms of death and intracranial bleeding complications

After treatment					
intracranial hemorrhage					
Live	Dying	p*	No	Yes	p*
Hydrangea (QID)	Hydrangea (QID)		Hydrangea (QID)	Hydrangea (QID)	



WBC ($10^3/\mu\text{l}$)	10,37 (4,3)	14,16 (6,3)	<0,001	9,1 (6,1)	11,8 (4,8)	0,004
Neutrophil ($10^3/\mu\text{l}$)	7,63 (3,5)	12,5 (6,1)	<0,001	7,1 (5,4)	9,02 (5)	0,002
Lymphocyte ($10^3/\mu\text{l}$)	1,79 (1,2)	0,92 (0,6)	<0,001	1,74 (0,9)	1,28 (1,3)	0,055
Hgb (g/dL)	13,4 (2)	11,2 (4,17)	0,031	13,1 (2,4)	13,1 (2,4)	0,758
Platelet ($10^3/\mu\text{l}$)	218 (72)	230 (84)	0,607	230 (80)	210 (77)	0,132
MPV (fL)	10 (1,4)	10,8 (1,8)	0,044	9,9 (1,5)	10,2(1,6)	0,352
NLR	4,5 (4,48)	15,7 (21,4)	<0,001	3,96 (6,9)	6,36 (8,1)	0,002
IG (%)	0,4 (0,3)	0,7 (0,4)	<0,001	0,5 (0,3)	0,5 (0,4)	0,813
SII ($10^3/\mu\text{l}$)	991 (898)	2986 (5332)	<0,001	918 (1535)	1262 (1197)	0,021

QID: Interquartile difference (75%-25% difference), WBC: White Blood Cell, Hgb: Hemoglobin, MPV: Mean Platelet Volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index, SII (It is calculated by the formula: Neutrophil number x Platelet number) / Lymphocyte number. *: Mann-Whitney U test

When the laboratory values of the patients on the first day of their hospitalization were compared in terms of death, the median WBC, neutrophil, NLR, IG and SII values of the deceased patients were statistically significantly higher than those who survived (p values <0.001), while the lymphocyte count and hemoglobin values were significantly lower (p values <0.001). 0.001 and 0.02).

When examined in terms of complications of ICH, the WBC, neutrophil count, NLR and SII values of those with ICH were statistically significantly higher (p values 0.046, 0.003, <0.001 and 0.003, respectively) and the lymphocyte count was significantly lower (p = 0.016).

When the laboratory values of the patients on the 3rd day of their hospitalization were compared in terms of death, the median WBC, neutrophil, MPV, NLR, IG count and SII values of



the deceased patients were statistically significantly higher, and the lymphocyte count and hemoglobin values were significantly lower than the surviving patients.

When examined in terms of ICH complications, WBC, neutrophil count, NLR and SII values of those with ICH were statistically significantly higher. While the WBC and neutrophil counts on the 1st and 3rd days of hospitalization of the patients increased significantly during the first three days, the lymphocyte count and hemoglobin value decreased. MPV, NLR, IG and SII values increased significantly during the first three days. Comparison of ROC curves of MPV, NLR, IG and SII values on the 3rd day of hospitalization in terms of mortality (Table 4 and Figure 1).

Table 4. ROC Curve analyzes of MPV, NLR, IG and SII values in terms of mortality

		AUC (p value)	Cut- off	Sensivi te	(%95 CI)	Spesifite	(%95 CI)	LR+	LR-	PPV	NPV
Mortality	MPV	0,621 (0,038)	>10,7	53,3	34,3- 71,7	74	64,3- 82,3	2,05	0,63	38,1	84,1
	NLR	0,818 (<0,001)	>7,65	70	50,6- 85,3	79	69,7- 86,5	3,33	0,38	50	89,8
	IG	0,739 (<0,001)	>0,5	69,2	48,2- 45,7	71,7	61,4- 80,6	2,45	0,43	40,9	89,2
	SII	0,808 (<0,001)	>1641	66,6	47,2- 82,7	79	69,7- 86,5	3,17	0,42	48,8	88,8
MPV: Average platelet volume, NLR: Neutrophil/Lymphocyte Ratio, IG: Immature Granulocyte, SII: Systemic Inflammatory Index, calculated by the formula SII (Neutrophil count x Platelet count) / Lymphocyte count.											

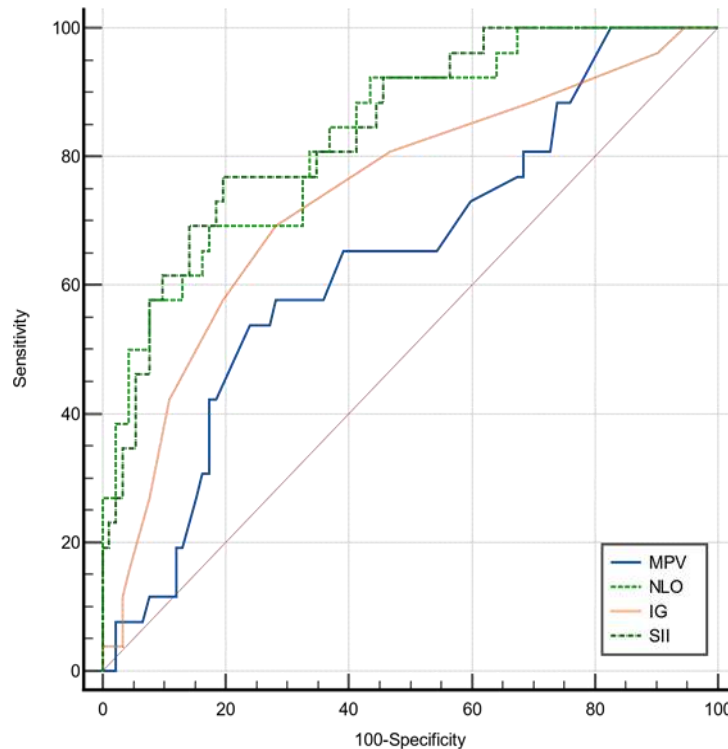


Figure 1. Comparison of ROC curves of MPV, NLR, IG and SII values on the 3rd day of hospitalization in terms of mortality

Discussion And Conclusion

As a result of our study, we believe that SII will be a valuable tool as a mortality predictor that can be used during referral and follow-up and will assist the National Institutes of Health Stroke Scale (NIHSS) score in AIS patients.

Platelet count is a parameter that reflects the production and aging of platelets and has been reported to play an important role in the development of ischemic or hemorrhagic stroke. A study conducted in 2016 showed that high platelet count increases the risk of ischemic stroke but decreases the risk of hemorrhagic stroke (4,5). In our study, platelet count did not change on the 1st and 3rd days compared to the time of admission, and in addition, no difference was found between platelet count and mortality. We believe that the reason for this result is due to the



importance of platelet functions rather than the number of platelets in circulation as a prognostic factor in ischemic stroke.

Recent studies have shown that routine hematological parameters such as neutrophil-lymphocyte ratio (NLR), red blood cell distribution width (RDW) and eosinophil count are associated with the prognosis of AIS (6). NLR has emerged as an objective and easily measurable indicator of systemic inflammatory status reflecting the balance between neutrophils and lymphocytes in peripheral blood (7). A retrospective emergency room study conducted in our country in 2020 on 422 patients found that when the NLR value was >4.12 , its sensitivity in predicting first seven-day mortality was 77.8% and its specificity was 68.5% (8). In addition, a meta-analysis study showed that high NLR (at a cut-off value of 7.5-11) was a good predictor of ICH and 3-month mortality in patients with AIS (9). In our study, there was no difference between the NLR value at admission and mortality and ICH. However, there was a significant relationship between the NLR value, which changed significantly on the 1st and 3rd day of hospitalization, and mortality and ICH. Especially on the 3rd day of hospitalization, the NLR ratio ($AUC=0.818$) had the highest discriminatory ability in predicting mortality ($p < 0.0001$). When the NLR ratio was >7.65 , its sensitivity in predicting mortality was 70%, its specificity was 79%, its positive predictive value was 50%, its negative predictive value was 89.8%, its positive likelihood ratio was 3.33, and its negative likelihood ratio was 0.38.

Our study is the first study to show that dynamic hematological values are more valuable in AIS patients. A systematic review and meta-analysis study conducted in 2022 concluded that high MPV may be a predictor of adverse clinical outcomes of AIS, especially in patients who did not receive thrombolytics (10). In our study, there was no difference between the MPV value at the time of admission and on the 1st day of hospitalization and mortality and ICH. A significant relationship was found between the MPV value, which increased significantly from the time of admission, and mortality on the 3rd day of hospitalization. When the MPV value on the 3rd day of hospitalization was >10.7 , it was a poor predictor of mortality with 53.3% sensitivity and 74% specificity. We think that this result may be due to the fact that more than half of the patients received thrombolytic therapy, which may have affected their platelet functions. In recent years,



the use of immature granulocytes (IG) has been suggested as a new indicator of systemic inflammation, and the prognostic and predictive role of IGs has been shown in relation to many diseases (11).

There are few studies investigating the relationship between IG and AII. Korkut et al. showed in their study that when $IG > 1.3$ in AII, it had 80.5% sensitivity and 93.2% specificity in predicting mortality (AUC value=0.715). In another study conducted in 2023, it was shown that the IG count in AII had a moderate predictive ability in predicting short-term mortality. In our study, there was no difference between the IG percentage at admission and mortality, but there was a significant difference on the 1st and 3rd days of hospitalization. This difference was more pronounced on the 3rd day. The IG percentage first slightly decreased and then increased on the 3rd day. IG had a sensitivity of 69.2% and a specificity of 71% as a moderate predictor of mortality when the percentage value was >0.5 . Neurological recovery has been studied together with NLR and platelet/lymphocyte ratio in acute ischemic stroke, but SII was not found significant (12). Our study is a pioneering study examining the effect of SII on mortality in AII.

A study conducted in our country in 2023 showed that SII could be a good biomarker in both the diagnosis and the prediction of in-hospital mortality in acute stroke patients (13). However, the majority of AII patients in this study consisted of patients who received medical treatment. In our study, while there was no difference between SII at the time of admission and mortality, there was a significant difference on the 1st and 3rd days of hospitalization. SII increased on the 1st day compared to the time of admission, partially decreased on the 3rd day, but was found to be significantly higher than the time of admission. The SII on the 3rd day of hospitalization had a good ability to predict mortality when it was $>1641 \times 10^3/\mu l$ (AUC=0.808) and its sensitivity was 66.6% and specificity was 79%. To our knowledge, our study is the first to investigate SII in patients receiving both IV-tPA and MT. In our study, SII first showed a significant increase and then a slight decrease in stroke patients.

Conclusion



Our study is a pioneering study that emphasizes the dynamics of MPV, NLR, IG and SII over time in AII. SII index is a good prognostic marker in predicting in-hospital mortality on the 3rd day of hospitalization in patients with acute ischemic stroke.

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INVESTIGATION OF THE DIAGNOSTIC VALUE OF ULTRASOUND IN DETECTING FOREARM FRACTURES IN THE PEDIATRIC POPULATION APPLYING TO THE EMERGENCY SERVICE

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Purpose: Pediatric forearm trauma is one of the most common reasons for referral to the emergency department trauma unit. The aim of our study is to investigate the diagnostic value of ultrasonography (USG) compared to direct radiography in detecting forearm fractures in children aged 2-15 years within complete bone development.

Material and Method: Our prospective, observational and single-center study included patients aged 2-15 years, conscious, with isolated forearm trauma and closed injuries who applied to the emergency department of Kayseri City Hospital Emergency Medicine Clinic between 01.01.2021 and 31.08.2021. Written consent was obtained from the relatives or guardians of all patients. In the study, the physician who first examined the patient



filled out the research form and requested a direct radiograph. Forearm soft tissue USG was performed by the USG certified principal investigator who was blinded to the diagnosis and imaging results.

Findings: A total of 87 patients, 60 male (69%) and 27 (31%) female, were included in the study. Fractures were detected in 69(79.3%) patients, and 47 of the patients had only radius (54%), 20 (23%) had radius and ulna fractures, and 2 (2.3%) had only ulna fractures.

The sensitivity rate of USG for radius displaced fractures was found to be 96.67%, selectivity rate was 100%, and total accuracy rate was 98.8%. The sensitivity for radius nondisplaced fractures was found to be 94.59%, selectivity rate was 100%, and total accuracy rate was found to be 97.7%. The sensitivity rate of USG for displaced ulna fractures was found to be 94.1%, the selectivity value was 100%, and the total accuracy rate was 98.8%. The sensitivity coefficient for non-displaced ulna fractures was found to be 60%, the selectivity coefficient was 100%, and the total accuracy rate was found to be 97.7%.



Conclusion: The predictive power of USG for direct radiography results in pediatric forearm traumas was found to be extraordinary. As the clinical experience and USG experience of emergency physicians increases, we think that USG can be a more useful, radiation-free, and inexpensive diagnostic tool in the detection of forearm trauma in children.

Keywords: Ultrasonography, Forearm Fracture, Pediatric Population, Emergency Department

Introduction

Pediatric traumas constitute a significant portion of emergency department visits. Forearm fractures constitute 20-36% of all extremity fractures (1). Forearm traumas occur either as a result of direct trauma or as a result of falling onto an outstretched hand, most commonly from the same level (2). Forearm fractures constitute 41.1% of pediatric fractures (3). In children, forearm fractures are usually apparent from the outside and are diagnosed by examination. Patients with suspected forearm fractures usually



present with pain, swelling, redness, and deformity in the forearm(4).

Evaluation of extremity trauma typically includes both clinical and radiologic examinations. Conventional radiographs of the wrist in 2 planes are considered the gold standard (5). Radiographs expose children to small doses of radiation. Children are four times more sensitive to radiation than adults (6). Although extremity radiographs generally contain small amounts of radiation, cumulative radiation doses can cause health problems, such as an increased risk of malignancy over an individual's lifetime (5,7).

Bedside ultrasonography (USG) avoids this exposure for patients. In addition, bedside USG saves patients time in the emergency department by avoiding trips to the radiology department and delays waiting for radiographs to be interpreted (7,8). However, ultrasound has the advantage over x-ray in that it is excellent at visualizing soft tissue changes and, as a result, can identify secondary signs of a fracture. These signs can support



primary findings and potentially increase the diagnostic yield of ultrasound for fractures (9,10).

Purpose

Our aim is to investigate the diagnostic accuracy of bedside USG compared to plain radiography in the detection of forearm fractures in children with incomplete bone development in the emergency department. Thus, to prove the superiority of USG over radiography as a fast, reliable and radiation-free method in the detection of forearm fractures in the emergency department.

Method

Our prospective, observational, single-center study included childhood patients who presented to Kayseri City Hospital Emergency Medicine Clinic between 01.01.2021 and 31.08.2021 as outpatients or by ambulance, with a Glasgow ComaScale (GCS); 15, isolated forearm trauma, closed injury, and who were informed about the study and gave their consent (from



themselves and their parents/surrogate or guardian if they were of school age, or from their parents/surrogate or guardian if they were younger than school age). 95 patients were initially included in the study, but a total of 8 patients were excluded because 4 patients were noncompliant during USG imaging and 4 patients' relatives did not want to give consent. As a result, a total of 87 patients were included in the study. Patients under 2 years of age, over 15 years of age, those with forearm deformity, those with multisystem trauma, those with mental status changes, those with hemodynamic disorders (signs of shock), those with developmental delay, those with open wounds on the forearm, those allergic to USG gel, and those for whom consent could not be obtained were not included.

The primary researcher, who was an emergency medicine physician with at least 2 years of experience, asked the children, their parents, or their caregivers to describe the accident and performed a clinical examination including physical examination, palpation, and neurovascular assessment, which was recorded on the patient follow-up form. Before the



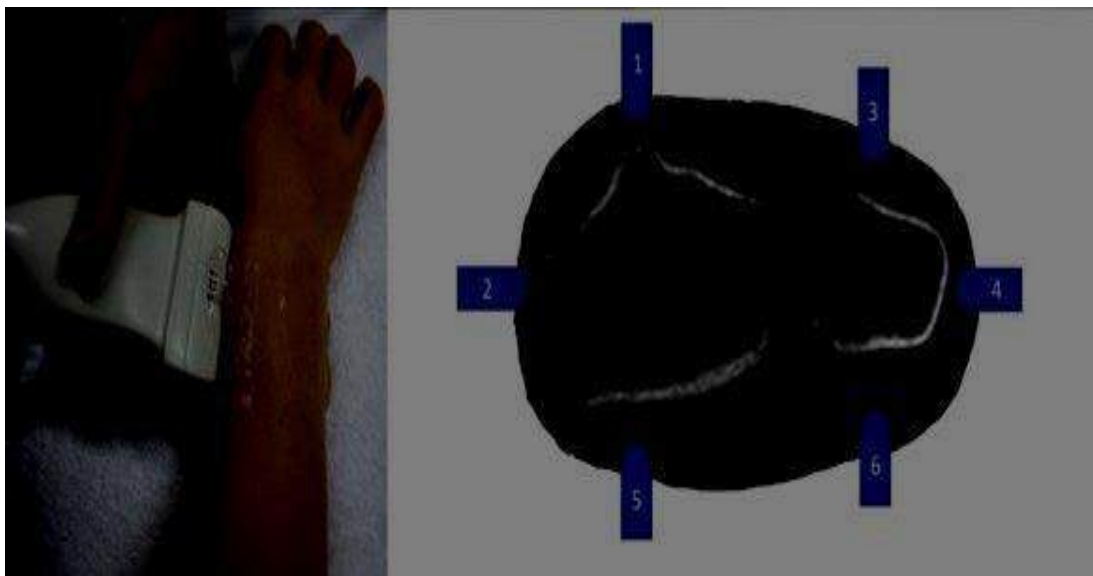
radiographs were taken, bedside USG of the forearm was performed according to a standardized method by a secondary researcher who was certified in USG and was unaware of the patient's clinical condition.

The forearm was examined in 6 standardized planes (lateral, dorsal and volar surfaces, transverse and longitudinal planes) (Figure 1). Bone cortex continuity, soft tissue hematoma presence, fracture localization were examined and noted from the images taken in 6 planes. USG fracture diagnosis was made with the presence of cortical gap, cortical protrusion, cortical deviation or positive hematoma covering the cortical in all images. USG image was also recorded as a photograph (Figure 2).

For patients who did not need orthopedic consultation, the direct radiograph interpretation of an experienced emergency room physician was accepted as the gold standard, and for patients who needed orthopedic consultation, the direct radiograph interpretation of an orthopedic physician was

accepted as the gold standard, and the diagnostic value of USG was investigated by comparing it with direct radiographs.

Figure-1: Ultrasound of the forearm, 1: dorso-radial; 2: radial; 3: dorso-ulnar; 4: ulnar; 5: palmar-radial; 6: palmar-ulnar



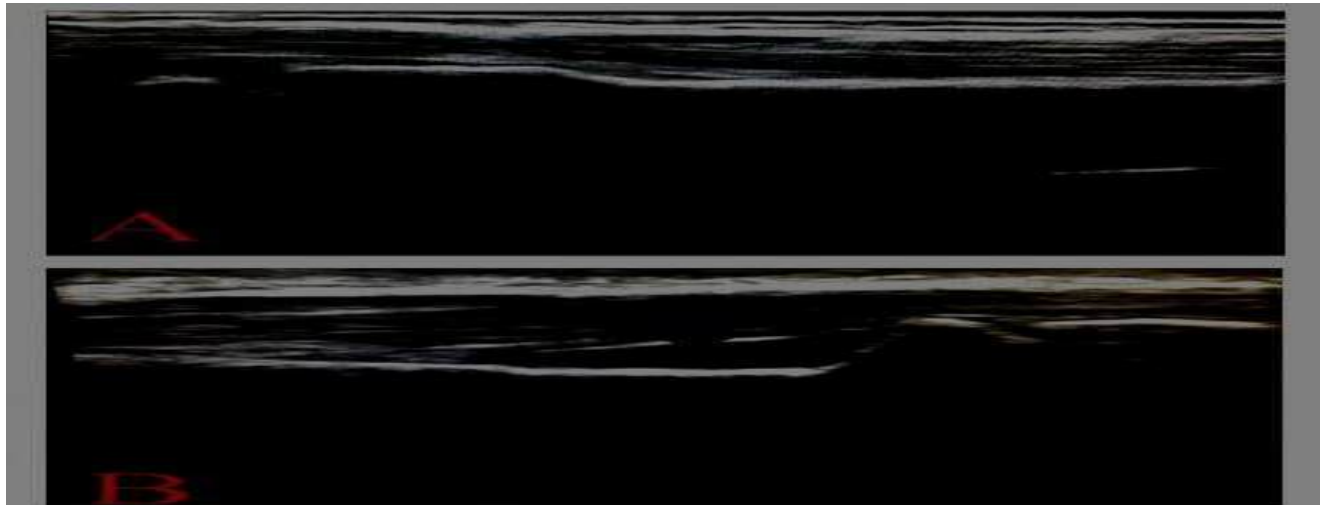


Figure-2: Fracture images taken on USG, A: Radius distal torus fracture B: Radius distal displaced fracture and edema in the soft tissue shown with arrow

Findings

Between 01.01.2021 and 31.08.2021, 87 children between the ages of 2-15 were examined. In each child, the radius and ulna bones were examined and a total of 174 bones were evaluated with ultrasound. Fractures were detected in 89 of these bones. While 37 (41.6%) nondisplaced and 30 (33.7%) displaced fractures were detected in the radius, 17 (19.1%) displaced and 5 (5.6%) nondisplaced fractures were detected in the ulna. The clinical features of the patients are shown in (Table 1).



Of the 37 radius nondisplaced fractures found on direct radiography, 35 were confirmed by USG. Of the 30 radius displaced fractures, 29 were confirmed. Of the 5 ulna nondisplaced fractures, 3 were confirmed. Of the 17 ulna displaced fractures, 16 were detected. A total of 6 fractures were not seen by USG, while 83 fractures were detected by USG (Table 2). Bones without any pathology were confirmed 100% by USG. The sensitivity rate of USG for radius displaced fractures was 96.67%, the selectivity rate was 100%, and the total accuracy rate was 98.8%. For radius nondisplaced fractures, the sensitivity was 94.59%, the selectivity rate was 100%, and the total accuracy rate was 97.7%. The sensitivity rate of USG for ulna displaced fractures was 94.1%, the selectivity value was 100%, and the total accuracy rate was 98.8%. For nondisplaced ulna fractures, the sensitivity coefficient was 60%, the selectivity coefficient was 100%, and the total accuracy rate was 97.7% (Table 3).

Tablo-1. Hastaların klinik Özellikleri

	n	%
Female	27	31
Male	60	69
Patient with fracture	69	79.3
Fractured Bone	89	51.1
Radius fracture	47	54
Ulna fracture	2	2.3
Radius and ulna fracture	20	23
Fracture type		
Non-displaced	42	48.2
Torus fractures	37	88.1
Greenstick fracture	4	9.5
Epiphysis fracture	1	2.4
Displaced	47	52.8
Proximal	1	2.1
Body	17	36.2
Distal	24	61.7

Tablo 2. Ultrasonografin kırık çeşitleri bakımından doğru/yanlış ayırtan

	True Positive	True Negative	False Positive	False Negative
Radius non-displaced	35	50	0	2
Ulna non-displaced	3	82	0	2

Tablo 3. Ultrasonografin kırık çeşitleri bakımından tamamlanan değeri

	Radius non-displaced	Ulna non-displaced	Radius displaced	Ulna displaced	Total
Sensitivity	94.6	60	96.7	94.1	93.3



Discussion

For these reasons, we investigated the diagnostic

value of bedside USG performed by emergency physicians in detecting forearm fractures in the pediatric population presenting to the emergency department. The use of USG to detect skeletal fractures has already been described in some studies with different results (12-14).

In our study, a total of 174 bones from 87 patients were evaluated on USG, and 83 (47.7%) of them were fractured. While 66 (75.9%) of these patients were detected to have fractures in the



radius and/or ulna, 21 (24.1%) patients were not detected to have fractures in the radius or ulna. On USG, 47 (54%) patients had only radius fractures, 17 (19.5%) patients had radius and ulna fractures, and 2 (2.3%) patients had only ulna fractures.

In their study, Lei Chen et al. found fractures in 48 patients. It was stated that 29 (60.4%) patients had only radius fractures, 17 (35.4%) patients had radius and ulna fractures, and 2 (4.2%) patients had only ulna fractures (11). In their study, Ackerman et al. found 77 fractures in 64 patients. 50 (78.1%) patients had only radius fractures, 1 (1.6%) patient had only ulna fractures, and 13 (20.3%) patients had both radius and ulna fractures (15). C. Herren et al. included 201 patients in their study. Fractures were found in 104 (51.7%) of 201 patients. Isolated radius fractures were detected in 89 (44.3%) patients, isolated ulna fractures in 9 (4.5%) patients, and both radius and ulna fractures were detected in 6 (3%) patients (8). When we look at our study and the results in the literature, it is seen that radius fractures are the predominant ones. We think that this is due to the fall mechanism and the forearm movement logic.



It was observed that USG had 96.67% sensitivity and 100% selectivity for radius displacement fractures and 94.59% sensitivity and 100% selectivity for radius nondisplacement. While USG showed 94.1% sensitivity for ulna displacement, it showed 60% sensitivity for ulna nondisplacement fractures. In the study conducted by C. Herren et al., 100% of 89 radius fractures were detected, while ulna fracture could not be detected in 1 (0.5%) patient (5). In the study conducted by Chen et al., 100% of 29 radius fractures were detected by USG, while ulnar styloid fracture could not be detected in 2 (1%) patients (11). In the study conducted by Ackerman et al., 72 of 77 fractures (94%) were detected, but it was not stated which type of fracture could not be detected (15). Ahmed et al. In his study, ulna fracture was not detected in 1 (2.4%) patient (6).

Similar to studies in the literature, in our study, the sensitivity and selectivity of USG for radius fractures were found to be higher than for ulna fractures. Forearm fractures in children mostly occur in the distal region. The radius is dominant and wide.



in the distal part of the forearm. Therefore, we think that ulnafractures are more difficult to detect on USG than radius fractures.

Conclusion

The predictive power of USG over direct radiography results in pediatric forearm traumas has been found to be at an extraordinary level. As clinical and USG experience increases in emergency physicians, we believe that USG may become a more useful, radiation-free, and inexpensive diagnostic tool in the detection of forearm trauma in children.

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Iatrogenic Systemic Botulism: An Extreme Case and a Review of Diagnosis and Treatment

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İzmir Şehir Hastanesi, Acil Tıp Kliniği

Background and aim

Botulism is caused by toxins produced by the anaerobic gram-positive bacterium *Clostridium botulinum* and its species (*C. baratii* and *C. butyricum*) (1). Botulinum toxins are among the most potent biological toxins known. Seven distinct antigenic botulinum toxins (A, B, C, D, E, F, and G) have been identified (2). Botulinum neurotoxin enters the vascular circulation through absorption from wounds, the gastrointestinal tract, inhalation, or injection, and is transported to peripheral cholinergic nerve terminals, including neuromuscular junctions, postganglionic parasympathetic nerve endings, and peripheral ganglia (3). Its mechanism of action is the toxin-mediated blockade of neuromuscular transmission in cholinergic nerve fibers. Symptoms typically include dysphagia, ptosis, diplopia, and varying degrees of systemic weakness or muscle paralysis (4). Paralysis may progress to respiratory failure and death (5). Neurological symptoms are similar regardless of the route of exposure. Clinical signs can develop within hours or days and may last for several months. Although definitive diagnosis requires the isolation of the neurotoxin, access to such tests is limited. If there is a strong suspicion based on history and physical examination, treatment should be initiated immediately (5). Treatment includes supportive care, intubation and mechanical ventilation when necessary, and the administration of botulinum antitoxin.

The use of botulinum toxin products at appropriate doses for both therapeutic and cosmetic purposes is safe, and their effects are generally limited to the application site. However, in recent years, there has been an increase in cases of systemic iatrogenic botulism due to the rising off-label use of these products (6). Systemic involvement is typically associated with unlicensed drugs and high injection doses (6). Iatrogenic botulism cases have been reported in outbreaks, particularly following botulinum toxin injections into the gastric antrum via endoscopy for weight loss (6-8).



In this case report, we present iatrogenic systemic botulism following high-dose toxin administration for an unconventional indication. We aim to review the clinical presentation, diagnosis, and treatment of botulism based on current literature and highlight the rising incidence of such cases.

Case

A 61-year-old female patient presented to our clinic on June 14, 2024, with neurological symptoms following therapeutic botulinum toxin administration. She had a history of lumbar disc herniation, chronic obstructive pulmonary disease, hypertension, and Parkinson's disease. Her daily medications included 50 mg piribedil, 4 mg bornaprine hydrochloride, 40 mg propranolol, and 16 mg candesartan. The patient was a retired physician. In her history, she reported receiving an injection of 1000 U botulinum neurotoxin serotype A (BoNT-A, abobotulinumtoxin A, Dysport®) into her abdominal muscles by a physical therapy specialist at a private clinic on May 29 for back pain. Approximately 7-8 days after the injection, she developed hoarseness, slurred speech, difficulty swallowing, dry mouth, double and blurred vision, shortness of breath, and difficulty walking. Generalized weakness progressively worsened. Ten days after the injection, she visited an external center where botulism was diagnosed, and she was discharged with the advice that her symptoms would resolve within three months. However, following worsening symptoms, including neck weakness, she presented to another emergency department, where she was referred to our emergency department via ambulance due to a lack of available antitoxin.

The patient was admitted to a monitored area for follow-up and treatment. Upon arrival, she was conscious, cooperative, and oriented. Her vital signs were: blood pressure 128/63 mmHg, heart rate 80 bpm, oxygen saturation 96%, respiratory rate 13/min, and body temperature 36°C. Physical examination revealed hypophonic speech, normoisocoric pupils with normal bilateral light reflexes, no gaze deficits, diplopia, or nystagmus, and no neck stiffness or other signs of meningeal irritation. Muscle strength was 4/5 in the upper extremities and 3/5 in the lower extremities. Deep tendon reflexes were normal. The patient was unable to cooperate with cerebellar testing and gait assessment. Other system examinations were unremarkable. A brain CT scan showed no neuroradiopathology, and the ECG showed sinus rhythm with occasional



premature beats. Laboratory results included glucose at 102 mg/dL, white blood cell count of $8.73 \times 10^3/\mu\text{L}$, hemoglobin 11.9 g/dL, and C-reactive protein at 0.6 mg/L. Liver and kidney function tests, as well as electrolyte levels, were normal. Supportive care was provided in the emergency department, and her vital signs remained stable without the need for intubation. After contacting the national emergency call center (call number:112) and the national poison control center (call number:114), botulinum antitoxin (BAT®, Heptavalent Botulism Antitoxin [A, B, C, D, E, F, G]) was obtained from Bakırköy Dr. Sadi Konuk Training and Research Hospital. The BAT dosage and infusion rate are shown in **Table 1**. The patient was admitted to the general intensive care unit (ICU).

Table 1: BAT dosage guidelines and intravenous infusion rate

Patient group	Dose	Initial infusion rate (first 30 min.)	If tolerated, increased infusion rate (within 30 min.)	Maximum infusion rate
Adult (≥ 17 years)	1 vial	0.5 mL/min	Double the rate	2 mL/min
Pediatric (1-17 years)	20% to 100% of the adult dose	0,01 mL/kg/min Do not exceed the adult rate	0,01 mL/kg/min	0,03 mL/kg/min Do not exceed the adult rate
Infant (<1 year)	10% of the adult dose	0,01 mL/kg/min	0,01 mL/kg/min	0,03 mL/kg/min
Pediatric dosage is adjusted according to body weight.				

The patient received follow-up care and physical therapy in the ICU for 5 days. Upon improvement in muscle strength, with 5/5 in the right upper extremity, 4+/5 in the left upper extremity, 5/5 in the right lower extremity, and 4+/5 in the left lower extremity, she was transferred to the neurology ward. After one week, she still had hypophonic speech, required double support for walking, and had limited neck flexion, so her treatment continued in the physical medicine and



rehabilitation department for an additional 2 weeks. Following partial improvement, the patient was discharged for outpatient follow-up.

Pediatric dosage is adjusted according to body weight.

Conclusions

The confirmation of botulism requires the detection of neurotoxin in serum, stool, or gastric fluids using sensitive and specific tests such as mass spectrometry (9). However, in the later stages of the disease, serum toxin levels may decrease, leading to negative results. The gold standard for diagnosis is biological testing using experimental animals. Iatrogenic botulism can be diagnosed quickly and easily based on clinical history and presentation. Treatment decisions are made according to the clinical condition and symptoms. A positive response to treatment can aid in confirming the diagnosis, but repeated clinical evaluations and symptom monitoring are crucial for definitive confirmation of botulism (9).

Botulism typically progresses as follows: prior to the onset of paralysis, non-specific symptoms such as nausea, vomiting, abdominal pain, weakness, dizziness, and dry mouth are present. Signs and symptoms then advance to include blurred vision, diplopia, ptosis, extraocular muscle weakness, dilated pupils, dysarthria, dysphagia, and/or a diminished gag reflex. Additional neurological signs may include symmetric descending paralysis or weakness of motor and autonomic nerves. In the final stages, respiratory muscle weakness may be mild or progressive, potentially leading rapidly to respiratory failure (5). Laboratory results and cerebrospinal fluid analysis are typically normal. Patients often present to emergency departments due to the rapid progression and severity of symptoms.

After a focused history and physical examination, patients with suspected iatrogenic botulism should be closely monitored with airway, respiratory, and circulatory support as needed. In cases of respiratory failure, intubation and invasive mechanical ventilation may be required. The only specific treatment for botulism is botulinum antitoxin (BAT). BAT should be administered as early as possible, preferably in the emergency department, to patients with suspected botulism. The greatest benefit is observed in those who receive it within the first 2 days



of symptom onset (1). Early administration of BAT can halt the progression of paralysis and may prevent respiratory failure in some patients. However, antitoxin cannot reverse existing paralysis (1). BAT works by binding and neutralizing circulating botulinum toxin that has not yet irreversibly bound to synaptic receptors. All BAT doses should be diluted 1:10 in normal saline and administered via slow infusion. Vital signs should be monitored throughout the infusion, and the infusion rate should be adjusted according to the patient's clinical status. An additional dose of antitoxin may be given to patients whose symptoms continue to progress despite treatment.

Early administration of botulinum antitoxin reduces mortality, ICU stay, and hospital stay duration (10-12). It has not been definitively reported how many days after toxin exposure BAT would not be beneficial (12). In the literature, circulating toxin was detected in two cases of foodborne botulism 12 and 25 days after symptom onset, respectively (13). Progressive paralysis indicates that toxin remains in circulation, and such patients should receive antitoxin to protect unaffected muscles, regardless of the number of days since disease onset (1).

Iatrogenic botulism, which is increasing in frequency, is a life-threatening condition that requires continuous patient monitoring and rapid administration of BAT. Emergency physicians should always consider botulism in suspected cases and initiate BAT treatment promptly when indicated.

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Patient applied with paralysis was discharged from ED on foot

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Background and aim:

Hypokalaemic periodic paralysis (PP) is a rare neuromuscular disease that occurs in 1 in 100,000 (1). A defect in calcium or sodium ion channels in the muscle membrane causes low blood potassium levels (2). The disease is usually autosomal dominant but can sometimes occur sporadically. It is characterized by attacks of painless muscle weakness. The first attacks occur during adolescence and young adulthood and are 3-4 times more common in males. Attacks are triggered by heavy exercise followed by rest, fasting or eating a carbohydrate-rich meal, stress, cold weather, or alcohol consumption. These events are usually associated with increased secretion of epinephrine or insulin, which causes potassium to move into cells and lower potassium blood levels (3). Attacks are also triggered by the use of beta-adrenergic agonists, glucocorticoids, and medications that can cause hypokalemia (3). The frequency of attacks varies from weeks to months, while the duration of attacks can last from minutes to days. During an attack, proximal muscles are usually affected more than distal muscles, and weakness affects the legs more than the arms. Hyporeflexia or areflexia is typical. Consciousness is preserved and respiratory muscles may be slightly affected (4). Findings consistent with hypokalemia occur on the electrocardiogram (ECG), including ST segment depression, decreased T wave amplitude, and increased U wave amplitude. Cardiac arrhythmias such as tachycardia, atrial fibrillation, paroxysmal supraventricular tachycardia, or ventricular fibrillation are uncommon but have been reported during attacks (5). Differential diagnoses include thyrotoxicosis, Anderson syndrome, myasthenia gravis, and metabolic myopathies. In patients with hypokalemic PP, the presence of a family history, hypokalemia during attacks, and response to treatment are diagnostic. Acquired cases of hypokalemic PP have been described in association with hyperthyroidism. Tests may be ordered to exclude other secondary causes of thyrotoxicosis and hypokalemia. Other diagnostic options include genetic testing, provocative testing, and electromyography, but are not routinely used.



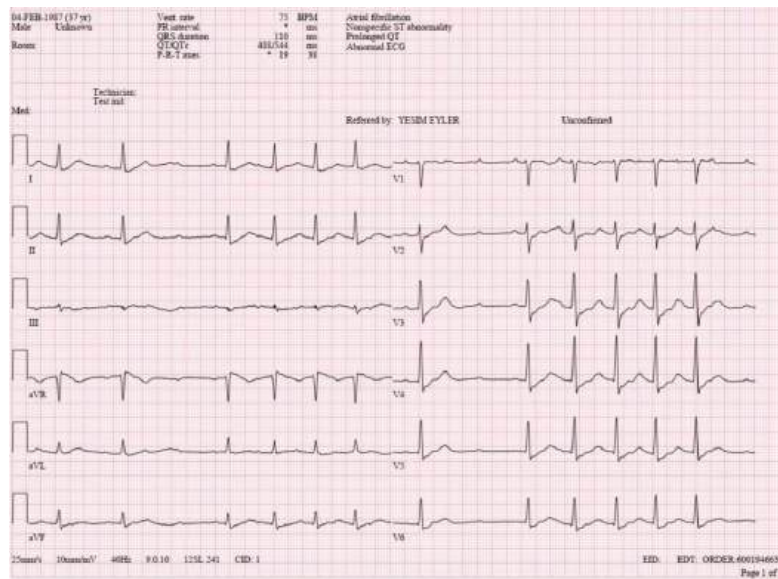
Potassium replacement therapy terminates acute attacks of PP. Recovery may take minutes to hours. Most patients with hypokalemic PP experience myopathy of varying severity throughout their lives (4). There is no known strategy to prevent the development of weakness.

We present a patient who developed weakness in 4 extremities after anaphylaxis treatment. With this case report, we aimed to remind the diagnosis of hypokalemic PP in cases of sudden paralysis after glucocorticoid therapy.

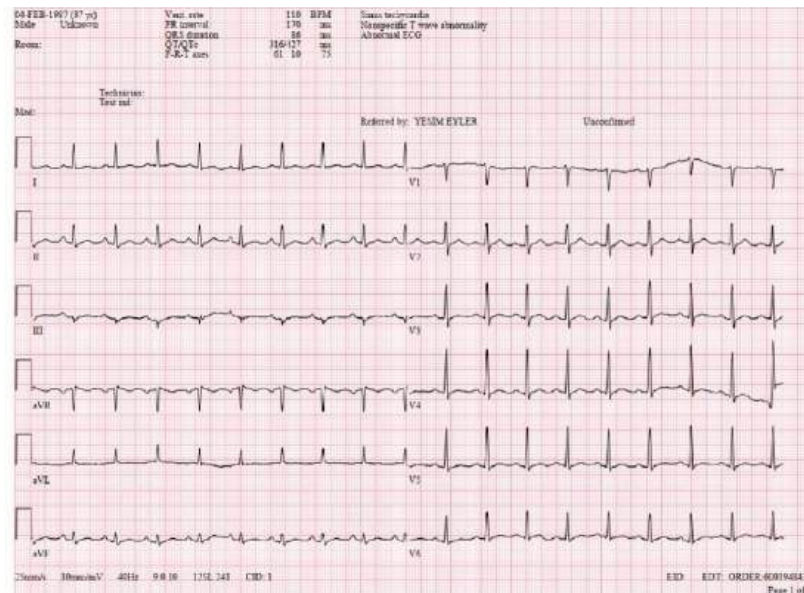
Case

A 37-year-old man was admitted to the emergency department (ED) by 112 emergency health services with complaints of weakness in his arms and legs and inability to walk when he woke up this morning. On arrival, he was conscious, fully oriented and cooperative, and his vital signs were normal. The patient reported that he used paracetamol last night due to an upper respiratory tract infection and then went to the ED with an allergic reaction and was discharged after treatment. He had no known disease or medication use. On physical examination, muscle strength was 2/5 in bilateral lower and upper extremities. Sensory examination was normal. Speech was normal, pupils were normoisochoic, there was no gaze defect, facial asymmetry or nystagmus. Cerebellar examination could not be evaluated. Other system examinations were normal.

The electrocardiogram (ECG) showed atrial fibrillation with normal ventricular response, Mobitz type 2 block and QT prolongation (**Figure 1.**). No acute neuroradiopathology was observed in brain computed tomography. Laboratory tests revealed glucose 199 mg/dl, creatinine 0.8 mg/dl, BUN 20, sodium 141 mmol/L, potassium 1.7 mmol/L, C-reactive protein 50 mg/L, troponin 232, TSH<0.005 uIU/mL and T4 2.71 ng/dL. Although the patient's free T4 value was determined to be above the reference range, there was no clinical thyrotoxicosis. We believe that hyperthyroidism aggravates the paralysis. The patient was closely monitored and potassium replacement therapy was started. In the echocardiography performed by the cardiologist, left ventricular ejection fraction, wall movements, and right structures were evaluated as normal. There was no pericardial or major valve pathology.



The patient's records from the previous day revealed that he was given 180 mg methylprednisolone, 8 mg dexamethasone, 1 mg adrenaline, 5 mg salbutamol nebulas and 2000 cc 0.9% NaCl infusion in the ED. After potassium replacement, the patient's complaints began to regress and ECG findings improved (**Figure 2.**). We thought that the intensive glucocorticosteroid treatment may have triggered the patient's findings. Since the weakness improved with the return of the potassium level to normal, we first considered hypokalemic periodic paralysis in the diagnosis. Our patient was also evaluated by neurology, infectious diseases and internal medicine specialists. As a result of the consultations, we discharged our patient by recommending outpatient clinic control for further examinations and follow-ups.



Conclusion

We present a case who admitted with acute onset painless muscle weakness and whose symptoms rapidly improved with treatment. Low blood potassium levels in the patient caused severe electrocardiogram abnormalities. This condition was probably triggered by high dose glucocorticosteroid injection. Also, hyperthyroidism aggravated the paralysis. We considered the diagnosis of hypokalemic PP because of the rapid clinical improvement with potassium replacement. We discharged the patient for outpatient follow-up.

Hypokalemic PP often presents in young men with variable steroid-induced low potassium levels and muscle weakness attacks that usually occur within 24 hours. In patients diagnosed with hypokalemic PP, family history and gene mutations are not always present (6).

This disease, which causes a serious neurological condition and electrocardiographic findings, is rarely encountered in emergency services but responds dramatically to treatment. Hypokalaemic PP should be considered among the differential diagnoses in cases of sudden paralysis after glucocorticoid administration. Treatment should be started as soon as low blood potassium levels are detected.



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COMPARISON OF LACTATE AND PROCALCITONIN ELEVATIONS WITH BLOOD CULTURE GROWTH IN PATIENTS WITH SUSPECTED SEPSIS IN EMERGENCY DEPARTMENT

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****Background and Aim**:**

Sepsis and septic shock require prompt initiation of intravenous antimicrobial therapy, ideally after blood cultures are obtained. However, blood culture results take a prolonged period to become available, making early diagnosis and intervention challenging.

Procalcitonin and lactate have been proposed as rapid biomarkers for sepsis diagnosis and monitoring. This study aimed to evaluate the relationship between lactate and procalcitonin levels and blood culture growth in patients with suspected sepsis in the emergency department (ED).

****Methods**:**

This retrospective cohort study was conducted on patients presenting to the ED between November 1, 2020, and November 1, 2022, who were over 18 years old, had a qSOFA score of 2 or higher, and had blood cultures obtained. A total of 87 patients were included based on inclusion and exclusion criteria, all of whom were hospitalized. The data collected included demographics, clinical parameters, lactate and procalcitonin levels, and blood culture results.

****Results**:**



A total of 1165 patients had blood cultures obtained during the study period. Of these, 87 patients (51.7% male, mean age 75.1 ± 15.1 years) met the inclusion criteria. Growth was observed in 55.2% of the blood cultures. There was no significant difference between the groups with and without culture growth regarding age, sex, and comorbidities ($p > 0.05$). However, lactate and procalcitonin levels were significantly higher in the group with culture growth ($p < 0.05$). The elevation in these biomarkers was associated with Gram-negative bacterial growth.

****Conclusions**:**

Due to the time required for blood culture results, early identification of the causative pathogen in sepsis is critical. Our study suggests that lactate and procalcitonin levels can be helpful in predicting blood culture positivity, especially in cases of Gram-negative bacterial infections. Demographic findings, vital signs, and other laboratory parameters did not reliably predict culture results in this population.

****Keywords**:** Blood Culture, Lactate, Procalcitonin, qSOFA, Sepsis

****INTRODUCTION****

Sepsis is a life-threatening organ dysfunction caused by a dysregulated host response to infection. It remains a leading cause of mortality and morbidity worldwide, especially among critically ill patients (1). Early recognition and treatment of sepsis are crucial to improving patient outcomes. According to the Surviving Sepsis Campaign guidelines, the administration of appropriate antimicrobial therapy should begin as soon as sepsis is suspected, ideally after blood cultures are collected to identify the causative pathogen (2).



Blood cultures are considered the gold standard for diagnosing bacteremia, but their results can take several days to become available. This delay poses a challenge in initiating targeted antimicrobial therapy. As such, there is increasing interest in using rapid biomarkers like lactate and procalcitonin to help predict sepsis and guide early antimicrobial therapy (3, 4). Lactate is a well-established marker of tissue hypoxia, and elevated levels have been associated with increased mortality in septic patients (5). Procalcitonin, a precursor of the hormone calcitonin, has been identified as a marker of bacterial infection and inflammation, with higher levels indicating a higher likelihood of bacterial etiology (6, 7).

This study aimed to compare the elevations of lactate and procalcitonin with blood culture growth in patients with suspected sepsis in the emergency department (ED).

MATERIALS AND METHODS

Study Design

This was a retrospective cohort study conducted at Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi, Istanbul, Turkey. The study period was from November 1, 2020, to November 1, 2022. Patients aged 18 years or older with suspected sepsis who had blood cultures taken and were hospitalized were included in the study. A qSOFA score of 2 or higher was used to identify patients at risk for sepsis (8).

Inclusion and Exclusion Criteria

Inclusion criteria were:

- Age $\geq$ 18 years
- Blood cultures obtained



- qSOFA score ≥ 2
- Hospitalization following ED admission

Exclusion criteria included:

- Patients without blood cultures taken
- Patients with non-septic conditions or chronic infections
- Patients who did not meet the qSOFA criteria

****Data Collection****

Demographic and clinical data were collected from electronic health records. Laboratory parameters, including lactate and procalcitonin levels, were measured at the time of ED admission. Blood culture results were recorded, and the presence or absence of microbial growth was noted. The study also included information on comorbidities, vital signs, and other inflammatory markers such as C-reactive protein (CRP).

****Statistical Analysis****

Descriptive statistics were used to summarize the patient demographics and clinical characteristics. Continuous variables were compared using the t-test or Mann-Whitney U test, and categorical variables were compared using the chi-square test. Statistical significance was set at $p < 0.05$. SPSS version 23.0 (IBM Corp, Armonk, NY, USA) was used for data analysis.

**RESULTS**

****Patient Demographics and Clinical Characteristics****



Out of 1165 patients who had blood cultures taken during the study period, 87 patients (mean age 75.1 ± 15.1 years) met the inclusion criteria. Of these, 45 patients (51.7%) were male. Blood culture growth was observed in 55.2% of cases. The most common organisms identified were Gram-negative bacteria, including *Escherichia coli*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*.

****Comparison of Laboratory Parameters****

There was no significant difference between the groups with and without blood culture growth in terms of age, sex, or comorbid conditions such as diabetes, hypertension, or chronic kidney disease ($p > 0.05$). However, lactate levels were significantly higher in the culture-positive group (mean lactate = 4.5 mmol/L vs. 2.1 mmol/L in the culture-negative group, $p = 0.01$). Procalcitonin levels were also significantly elevated in the culture-positive group (mean procalcitonin = 8.2 ng/mL vs. 2.3 ng/mL in the culture-negative group, $p = 0.03$).

****Sensitivity and Specificity of Lactate and Procalcitonin****

Lactate and procalcitonin were found to be useful biomarkers for predicting blood culture positivity. The optimal cutoff value for lactate was 3.5 mmol/L, with a sensitivity of 78% and specificity of 82%. For procalcitonin, a cutoff value of 5 ng/mL yielded a sensitivity of 74% and specificity of 80%. These findings suggest that elevated lactate and procalcitonin levels are associated with a higher likelihood of blood culture positivity and bacterial sepsis.

**DISCUSSION**

Sepsis remains a significant cause of morbidity and mortality, and early identification and appropriate antimicrobial therapy are essential for improving patient outcomes. Blood



cultures remain the gold standard for identifying the causative pathogen but are limited by the time it takes to yield results. Our study found that lactate and procalcitonin levels were significantly higher in patients with positive blood cultures, suggesting that these biomarkers can aid in early diagnosis and antimicrobial therapy initiation.

Lactate has been extensively studied as a marker of tissue hypoxia and poor prognosis in sepsis. Elevated lactate levels are associated with an increased risk of organ failure and mortality (5). Similarly, procalcitonin has shown promise as a diagnostic marker for bacterial infections, with higher levels correlating with positive blood cultures in sepsis patients (6, 9).

Our findings suggest that lactate and procalcitonin can serve as useful adjuncts to clinical assessment and guide early treatment decisions. In particular, these biomarkers may be especially valuable when blood culture results are delayed, allowing for the timely initiation of appropriate antimicrobial therapy.

CONCLUSIONS

Lactate and procalcitonin are useful biomarkers in predicting blood culture positivity and can help guide the early management of sepsis in the emergency department. Our study demonstrates that these biomarkers, particularly when elevated, are associated with positive blood cultures and Gram-negative bacterial infections. Further research is needed to validate these findings and refine the use of lactate and procalcitonin in clinical practice for sepsis diagnosis.



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Certainly! Below is the extended version of your abstract as a full article, incorporating the necessary structure and referencing.



RELATIONSHIP BETWEEN NIHSS SCORE, AF, AND OXIDIZED LIPOPROTEIN IN ISCHEMIC STROKE CASES

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****ABSTRACT****

****Background**:** Stroke, also known as cerebrovascular accident (CVA), continues to be a significant cause of morbidity and mortality worldwide. Atherosclerosis, atrial fibrosis, and oxidized low-density lipoprotein (OxLDL) have been implicated in the pathophysiology of ischemic stroke. Understanding the relationship between atrial fibrillation (AF), serum OxLDL levels, and the severity of ischemic stroke as assessed by the National Institutes of Health Stroke Scale (NIHSS) may contribute to better diagnostic and therapeutic approaches.

****Aim**:** This study aimed to investigate whether there is a relationship between the prevalence of atrial fibrillation (AF), serum OxLDL levels, and NIHSS score in acute cerebrovascular accident (A-CVA) cases.

****METHODS****

This analytical cross-sectional study was conducted at Şişli Hamidiye Etfal Training and Research Hospital between June and July 2024. It included 25 patients (12 males, 13 females) diagnosed with acute cerebrovascular accident (A-CVA) in the Emergency Medicine Clinic. Data on demographic characteristics, comorbidities (hypertension, diabetes mellitus, ischemic heart disease, hyperlipidemia, malignancy, and hypothyroidism), and AF status were collected for each participant. NIHSS scores were calculated on admission and before discharge, and serum OxLDL levels were measured using the ELISA method.

****RESULTS****

The mean age of the participants was 64 ± 11 years, with a body mass index (BMI) of 26.6 ± 5.0 kg/m². Of the participants, 9 (36%) were smokers, and 4 (16%) consumed alcohol. The mean systolic blood pressure was 140 ± 22 mmHg, and the mean diastolic blood pressure was 88 ± 20 mmHg. A total of 22 patients had hypertension, 9 had diabetes mellitus, and 11 had atrial fibrillation (AF).



Assessment of Coronary Artery Dominance on Prognosis and Mortality in Patients with Anterior ST- Elevation Myocardial Infarction

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****ABSTRACT****

****Background and Aim**:**

Coronary artery dominance refers to which coronary artery (right or left) provides the posterior descending artery, which is important for supplying blood to the heart muscle. There has been debate over whether coronary artery dominance has an impact on clinical outcomes in myocardial infarction (MI). This study evaluates the role of coronary artery dominance on prognosis and mortality in patients with anterior ST-elevation myocardial infarction (STEMI).

****Methods**:**

A cohort of patients with anterior STEMI was analyzed, comparing survivors (n=51) and non-survivors (n=22). Clinical variables such as age, sex, comorbidities, left ventricular ejection fraction (LVEF), and systemic inflammation markers were assessed. Univariable and multivariable logistic regression analyses were performed to identify independent predictors of mortality.

****Results**:**

Non-survivors were significantly older (68 vs. 51 years, $p<0.001$), had higher rates of diabetes (8% vs. 14.4%, $p=0.029$), hypertension (54.5% vs. 23.7%, $p=0.008$), and chronic renal failure (18.2% vs. 0.8%, $p=0.002$). They also had lower LVEF (41% vs. 50%, $p=0.024$) and higher triglyceride levels (145.5 mg/dL vs. 102.9 mg/dL, $p=0.042$). However, coronary artery dominance (left vs. right) did not significantly affect mortality ($p=0.484$). Multivariable analysis revealed that age (HR 1.060, 95% CI 1.002-1.121, $p=0.041$), NLR (HR 1.233, 95% CI 1.136-1.339, $p<0.001$), SIRI (HR 1.175, 95% CI 1.071-1.129, $p<0.001$), SII (HR 1.001, 95% CI 1.000-1.001, $p<0.001$), and AISI (HR 1.001, 95% CI 1.000-1.001, $p<0.001$) were independent predictors of mortality.



Receiver operating characteristic (ROC) analysis showed that the optimal cutoff value for SIRI to predict mortality was 5.56, with 69.5% sensitivity and 86.4% specificity (AUC = 0.852; 95% CI: 0.779–0.925, $p < 0.001$).

****Conclusions**:**

Coronary artery dominance does not significantly affect mortality in patients with anterior STEMI. Instead, age and systemic inflammation indices (NLR, SIRI, SII, AISI) are more predictive of adverse outcomes. These findings suggest that clinical management of anterior STEMI should focus on systemic inflammatory markers and patient age when assessing risk.

****Keywords**:** Coronary Artery Dominance, Anterior ST-Elevation Myocardial Infarction, Mortality Prediction, Systemic Inflammation Indices, Left Ventricular Ejection Fraction

**INTRODUCTION**

Coronary artery dominance refers to the artery that provides the posterior descending artery, which is responsible for the blood supply to the inferior portion of the heart. In most individuals, the right coronary artery (RCA) provides this supply (right dominance), while in some cases, the left coronary artery (LCA) provides it (left dominance). The impact of coronary artery dominance on outcomes in patients with myocardial infarction (MI) remains an area of ongoing research, especially for patients with ST-elevation myocardial infarction (STEMI).

Anterior STEMI, which involves a large portion of the left ventricle, is often associated with more severe outcomes compared to inferior STEMI. This study aims to determine whether coronary artery dominance influences the prognosis and mortality of patients presenting with anterior STEMI. Understanding the relationship between coronary artery dominance and mortality in anterior STEMI could help refine risk stratification and inform management strategies in these patients.



MATERIALS AND METHODS

Study Design and Population

This retrospective cohort study was conducted at Şişli Hamidiye Etfal Training and Research Hospital, Istanbul, Turkey. Patients with anterior STEMI were included in the analysis. The inclusion criteria were:

- Age ≥ 18 years
- Diagnosis of anterior STEMI confirmed by ECG and coronary angiography
- Availability of complete clinical and laboratory data

Exclusion criteria included:

- Non-STEMI patients
- Patients with incomplete data or contraindications for angiography

A total of 73 patients were included in the analysis, with 51 survivors and 22 non-survivors, and their data were compared to identify factors associated with mortality.

Data Collection

Data were collected from hospital records, including:

- Demographic information (age, sex)
- Medical history (comorbidities such as hypertension, diabetes, chronic renal failure)
- Clinical variables (e.g., left ventricular ejection fraction [LVEF], heart rate, blood pressure)
- Laboratory results (e.g., lipid profile, high-sensitivity C-reactive protein, white blood cell count)
- Coronary angiography findings, including the assessment of coronary artery dominance (left vs. right dominance)

Coronary Artery Dominance Assessment

Coronary artery dominance was classified based on angiographic findings:



****Left dominance****: The left circumflex artery (LCx) gives rise to the posterior descending artery (PDA).

- ****Right dominance****: The right coronary artery (RCA) supplies the PDA.

****Statistical Analysis****

Descriptive statistics were used to summarize baseline characteristics. Continuous variables were compared using t-tests or Mann-Whitney U tests, and categorical variables were compared using chi-squared tests. Univariable and multivariable logistic regression analyses were performed to identify independent predictors of mortality. Receiver operating characteristic (ROC) curves were used to evaluate the predictive accuracy of systemic inflammation indices (NLR, SII, AISI).

**RESULTS**

****Patient Characteristics****

The average age of survivors was 51 years (range: 45–60), compared to 68 years (range: 53–79) in non-survivors ($p < 0.001$). Comorbid conditions were more prevalent in non-survivors, including diabetes mellitus (14.4% vs. 8%, $p=0.029$), hypertension (54.5% vs. 23.7%, $p=0.008$), and chronic renal failure (18.2% vs. 0.8%, $p=0.002$). Survivors had a significantly higher left ventricular ejection fraction (50% vs. 41%, $p=0.024$), but triglyceride levels were higher in non-survivors (145.5 mg/dL vs. 102.9 mg/dL, $p=0.042$).

****Impact of Coronary Artery Dominance on Mortality****

Coronary artery dominance did not significantly affect mortality in this cohort ($p=0.484$). Both left and right dominance were observed in similar proportions among survivors and non-survivors (40.7% vs. 50%, $p=0.484$).

****Predictors of Mortality****

Multivariable logistic regression analysis revealed that the following factors were independent predictors of mortality:

- ****Age**** (HR 1.060, 95% CI 1.002–1.121, $p=0.041$)



- ****NLR (Neutrophil to Lymphocyte Ratio)**** (HR 1.233, 95% CI 1.136–1.339, $p < 0.001$)
- ****SIRI (Systemic Inflammation Response Index)**** (HR 1.175, 95% CI 1.071–1.129, $p < 0.001$)
- ****SII (Systemic Immune-Inflammation Index)**** (HR 1.001, 95% CI 1.000–1.001, $p < 0.001$)
- ****AISI (Atherosclerosis Inflammation Index)**** (HR 1.001, 95% CI 1.000–1.001, $p < 0.001$)

****ROC Analysis for Predicting Mortality****

ROC analysis indicated that the optimal cutoff value for SIRI to predict mortality was 5.56, with 69.5% sensitivity and 86.4% specificity (AUC = 0.852; 95% CI: 0.779–0.925, $p < 0.001$).

**DISCUSSION**

Our study found that coronary artery dominance did not significantly influence mortality in patients with anterior STEMI. While coronary anatomy can affect the severity of myocardial injury, other factors such as age and systemic inflammation indices were more predictive of mortality in this cohort. The markers of systemic inflammation, including NLR, SIRI, SII, and AISI, were found to be independent predictors of mortality, highlighting the importance of the inflammatory response in the pathophysiology of myocardial infarction.



Current Approaches in the Use of Proton Pump Inhibitors: Clinical Outcomes

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Pantoprazole, omeprazole, esomeprazole, lansoprazole, and rabeprazole are high-prescription burden drugs, and the presentation below focuses on their use in specific indications.

Indications for Long-Term Use (>8 Weeks)

1. Barrett's esophagus
2. Clinically significant (LA Classification C/D) erosive esophagitis
3. Esophageal strictures due to GERD
4. Zollinger-Ellison syndrome
5. Eosinophilic esophagitis
6. In patients at high risk of gastrointestinal bleeding, using ASA/NSAIDs, for prophylaxis:
 - a. Endoscopy-negative reflux disease responsive to PPIs, with relapse after PPI discontinuation
 - b. Relapsing functional dyspepsia responsive to PPIs
 - c. Upper respiratory tract symptoms associated with laryngopharyngeal reflux, responsive to PPIs, with relapse upon PPI discontinuation
 - d. Secondary protection in gastric and duodenal peptic ulcers without concurrent antiplatelet therapy

Indications for Short-Term Use (<8 Weeks)

1. Helicobacter pylori eradication
2. Stress ulcer prophylaxis for critically ill patients with risk factors
3. Uninvestigated GERD/dyspepsia
4. Treatment of NSAID-induced gastric and duodenal peptic ulcers
 - a. First or optional treatment of endoscopy-negative reflux disease
 - b. Initial treatment of functional dyspepsia
 - c. Uninvestigated dyspepsia



- d. of ulcers following sclerotherapy or band ligation for esophageal varices
- e. Prevention of recurrent bleeding from Mallory-Weiss tears

Conditions Not Indicated for Long-Term Use (>8 Weeks)

1. Non-erosive reflux disease symptoms unresponsive to high-dose PPI therapy
2. Functional dyspepsia unresponsive to PPI therapy
3. Steroid therapy in the absence of ASA/NSAID use
4. Prevention of recurrent upper GI bleeding outside peptic ulcer disease
5. Erosive esophagitis

Conditions Not Indicated for Short-Term Use (<8 Weeks)

1. Empiric treatment of laryngopharyngeal symptoms
2. Undifferentiated acute abdominal pain
3. Acute nausea and vomiting thought not to be related to GERD/esophagitis
4. Any isolated lower GI symptoms

Proton pump inhibitors (PPIs) have been shown to delay gastric emptying, but this effect is still debated. As a result, one week of treatment with rabeprazole sodium does not significantly alter gastric emptying, myoelectric activity, or satiety threshold. Meta-analyses examining the effectiveness of PPIs in GERD show a significant improvement in symptoms. A study of PPI treatment for 8 weeks showed effective healing of erosive esophagitis. Patients using NSAIDs have a 50% incidence of gastric erosion and 15-30% incidence of ulcers. 80% of NSAID-related deaths are linked to peptic ulcers.

PPI administration should be considered for high-risk gastrointestinal bleeding patients who use NSAIDs/ASA.

Indications for PPI Use in High-Risk Groups:

- Patients with a history of gastrointestinal ulcers or bleeding + NSAID use
- Elderly patients (>65) using NSAIDs
- Long-term high-dose NSAID use
- Anticoagulant + NSAID or cortisol use



- Antiplatelet + NSAID or cortisol use
- Functional dyspepsia, GERD, H. pylori infection, chronic alcohol use + NSAIDs

Patients on antiplatelet therapy should have H. pylori eradicated, and PPI prophylaxis should be applied for antiplatelet + NSAID combinations.

Effect of PPIs on Aspirin and Antiplatelet Therapy: When PPIs are used with aspirin, they help reduce gastrointestinal side effects by providing gastric protection. However, some studies suggest that PPI use could impact the efficacy of aspirin. In general, PPI use with aspirin is recommended. PPIs may slightly reduce aspirin's effectiveness in platelet aggregation. Omeprazole, in particular, has been shown to increase the risk of ischemic stroke in some studies.

Gastrointestinal Bleeding and PPI Use in High-Risk Patients: Meta-analysis has shown that PPIs are effective in controlling bleeding in gastrointestinal bleeding patients, reducing the need for surgical intervention and rebleeding. Early initiation of PPI therapy improves bleeding control and reduces the risk of rebleeding.

Treatment Protocol: For patients with suspected upper GI bleeding, high-dose IV PPIs are recommended as part of the initial management. These patients should undergo endoscopy within 12 hours of stabilization. If endoscopy is delayed, a second IV PPI dose should be given 12 hours later. If no high-risk ulcer is found, the PPI dose is reduced.

Stress Ulcer Prophylaxis (SUP): For critically ill patients, PPIs may reduce bleeding risk significantly. However, in enterally fed patients, SUP is not beneficial and may increase the risk of nosocomial pneumonia. SUP should be continued only for 2-3 days and not extended beyond that in ICU settings.

Adverse Effects of Long-Term PPI Use

Long-term use of PPIs (over 1 year) has been associated with several adverse outcomes. The risks include dementia, B12 deficiency, bone fractures, and kidney disease.

Dementia: A population-based study with 5.5 years of follow-up found a 33% higher risk of dementia in PPI users with cumulative use >4.5 years. B12 Deficiency Prolonged PPI use can reduce B12 absorption, leading to deficiency.

Bone Fractures: PPI use may decrease calcium absorption and increase the risk of bone fractures.

Kidney Disease: Studies suggest that prolonged PPI use may increase the risk of chronic kidney disease and acute interstitial nephritis.

Gastric Cancer: Long-term PPI use has been linked to a 1.5-fold increased risk of gastric cancer after one year, and this risk rises to 2.4-fold after 3 years.

Gastrointestinal Microbiome and SIBO: PPI use can alter the gut microbiome, increasing the risk of small intestinal bacterial overgrowth (SIBO) and other gastrointestinal infections. Patients on long-term PPIs should be monitored for these risks.



Rabeprazole: Rabeprazole has a faster onset of action than other PPIs and exhibits high effectiveness in eradicating *H. pylori*. It has less interaction with the cytochrome P450 enzyme system, making it a safer option for patients on multiple medications.

Conclusion: Proton pump inhibitors are highly effective in treating a range of gastrointestinal conditions, but their long-term use should be carefully monitored due to the potential for serious side effects. Their use should be restricted to appropriate indications, with the minimum effective dose and duration. The evidence for the risks of long-term PPI use is growing, and the decision to use PPIs should balance the benefits and risks for each patient.



Pseudo-Bartter Syndrome Presenting in a Patient with a Gastric Balloon: Case Report

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ABSTRACT

****Background and Aim**:**

Pseudo-Bartter syndrome (PBS) presents with clinical and biochemical features similar to Bartter syndrome but lacks an underlying primary renal pathology. This case report discusses the development of PBS following the placement of a gastric balloon for obesity treatment, highlighting the potential complications of such interventions.

****Case**:**

A 56-year-old male patient was admitted to the emergency department (ED) with altered general condition, confusion, nausea, vomiting, and urinary incontinence. The patient had undergone gastric balloon placement for obesity treatment a week earlier. He reported increased vomiting, especially after meals, over the past few days, and noted no significant weight loss following the procedure. On physical examination, the patient appeared dehydrated with dry skin and mucous membranes and had a drowsy, non-cooperative level of consciousness. Laboratory findings revealed:

- ****Serum Sodium****: 133 mEq/L
- ****Serum Potassium****: 2.27 mEq/L
- ****Serum Chloride****: 62 mEq/L

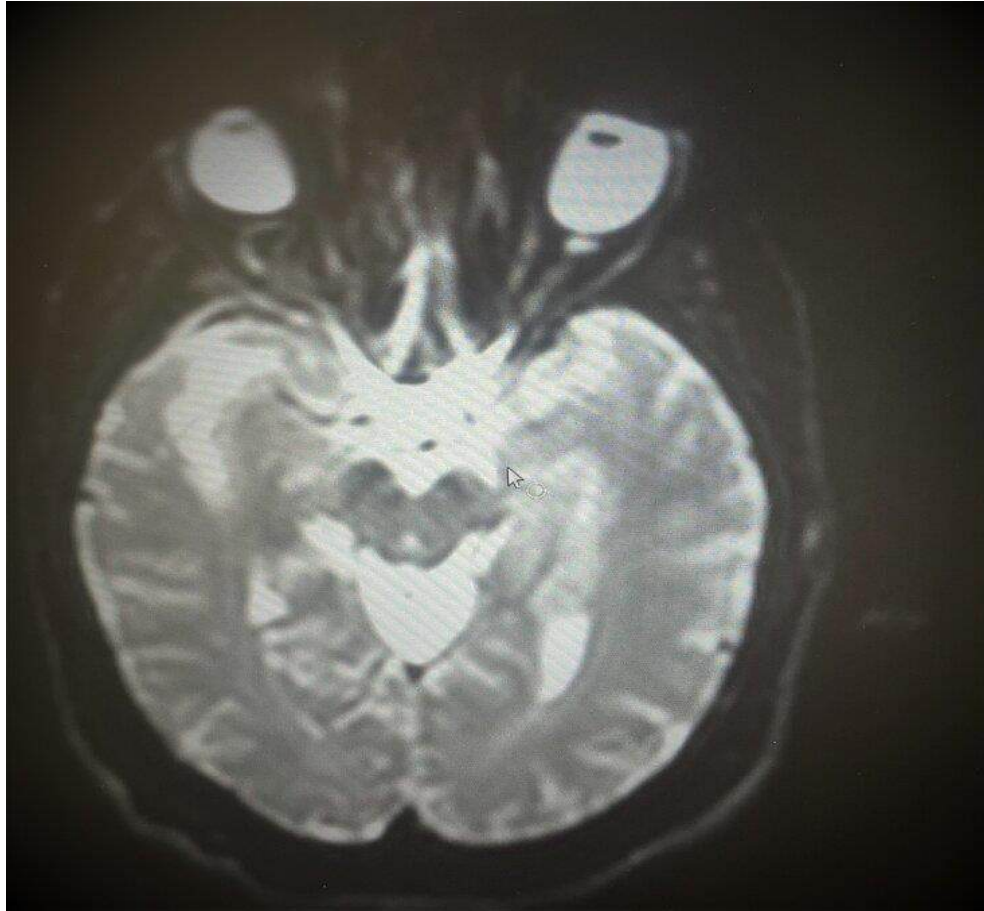
These biochemical abnormalities, along with the patient's clinical presentation, suggested a picture of hypokalemic, hypochloremic metabolic alkalosis, resembling Bartter syndrome.

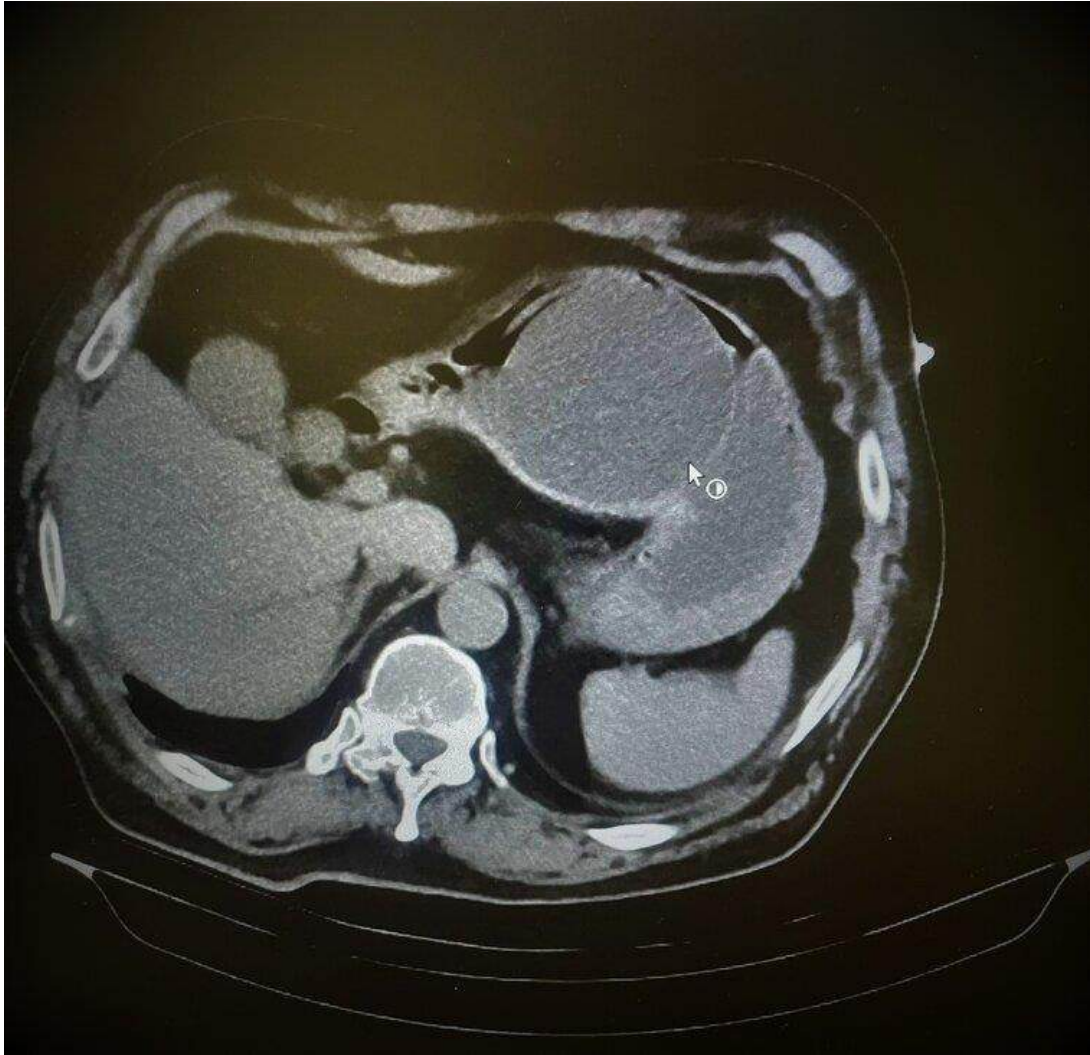
****Conclusions**:**

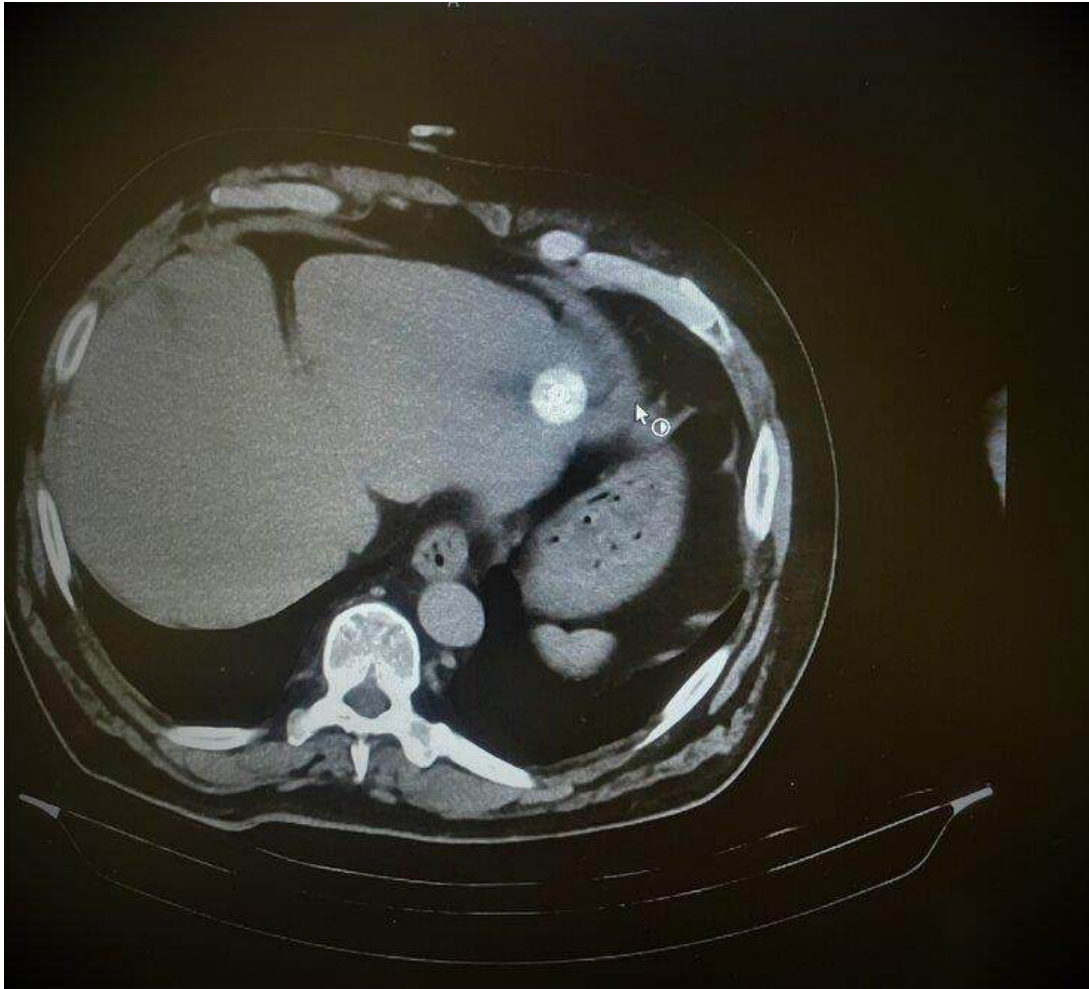


Pseudo-Bartter syndrome is a rare but important consideration in patients who have undergone gastric balloon placement and present with persistent vomiting and electrolyte disturbances. Early recognition and appropriate treatment can lead to rapid recovery and prevent further complications. This case underscores the need for awareness of PBS in similar patient populations.

****Keywords****: Hypochloremic Metabolic Alkalosis, Hypokalemia, Pseudo-Bartter Syndrome, Gastric Balloon, Electrolyte Disturbances







INTRODUCTION

Pseudo-Bartter syndrome (PBS) refers to a condition that mimics the clinical and biochemical features of Bartter syndrome but occurs in the absence of the genetic mutations or primary renal pathology typically associated with Bartter syndrome. PBS is often triggered by conditions that induce fluid and electrolyte disturbances, such as prolonged vomiting, diarrhea, or the use of certain medications like diuretics (1).



Bartter syndrome is characterized by hypokalemic metabolic alkalosis, hypocalciuria, and normal or high blood pressure, with a genetic basis affecting the renal salt transporters (2). PBS, while presenting with similar biochemical disturbances, does not have the same underlying genetic etiology and is generally considered a reversible condition when the precipitating cause is addressed (3).

Gastric balloons are increasingly used for the treatment of obesity, and although they are considered safe, they can lead to various gastrointestinal and metabolic complications. We present a case of PBS in a patient following gastric balloon placement, which was triggered by severe vomiting and dehydration.

CASE REPORT

A 56-year-old male with a history of obesity was admitted to the emergency department with altered general condition, confusion, nausea, vomiting, and urinary incontinence. The patient had undergone gastric balloon placement for obesity management approximately one week before the current presentation. He reported experiencing significant nausea and vomiting, particularly after meals, in the last 48 hours. There was no noticeable weight loss following the balloon placement.

Upon admission, the patient appeared to be in a poor general condition, with a drowsy and non-cooperative level of consciousness. On physical examination, signs of dehydration were evident, including dry skin and mucous membranes, and there was a noticeable decrease in urine output.

Laboratory Investigations:

The patient's laboratory results revealed the following:

- **Serum Sodium**: 133 mEq/L (normal range: 135-145 mEq/L)
- **Serum Potassium**: 2.27 mEq/L (normal range: 3.5-5.0 mEq/L)
- **Serum Chloride**: 62 mEq/L (normal range: 98-106 mEq/L)
- **Blood Urea Nitrogen (BUN)**: 28 mg/dL (normal range: 7-20 mg/dL)
- **Creatinine**: 1.0 mg/dL (normal range: 0.6-1.2 mg/dL)



These findings were consistent with hypokalemic, hypochloremic metabolic alkalosis, which is a hallmark feature of Bartter syndrome-like presentations. However, in the absence of renal pathology, the diagnosis of PBS was considered.

****Management**:**

The patient was treated with intravenous fluids for rehydration, electrolyte replacement (potassium chloride and sodium chloride), and antiemetic therapy to control the vomiting. The decision was made to monitor the patient closely in the hospital for resolution of his symptoms. Within 48 hours of treatment, the patient's condition significantly improved, with normalization of serum electrolytes and resolution of the vomiting and dehydration.

**DISCUSSION**

Pseudo-Bartter syndrome is a rare condition that mimics the clinical features of Bartter syndrome but is precipitated by factors such as vomiting, dehydration, and electrolyte imbalances without any primary renal pathology. Vomiting leads to the loss of gastric acid and chloride, contributing to hypokalemic, hypochloremic metabolic alkalosis (4). This clinical picture can be exacerbated by the use of interventions such as gastric balloons, which are often associated with significant nausea and vomiting, especially in the early postoperative period (5).

In this case, the patient developed PBS following gastric balloon placement, likely due to persistent vomiting and resulting fluid-electrolyte disturbances. As with Bartter syndrome, the clinical presentation included low serum sodium, potassium, and chloride levels, along with metabolic alkalosis. However, unlike true Bartter syndrome, the underlying cause in this case was related to the patient's gastric balloon and associated vomiting.

Pseudo-Bartter syndrome is generally reversible once the precipitating cause, such as vomiting or dehydration, is addressed (6). Prompt rehydration, correction of electrolytes, and cessation of the causative factor usually lead to complete recovery. It is important for clinicians to be aware of PBS in patients with recent gastric interventions, particularly those who present with unexplained vomiting and electrolyte disturbances.



CONCLUSIONS

Pseudo-Bartter syndrome is a rare but reversible condition that can present in patients with gastric balloons who experience persistent vomiting and electrolyte disturbances. Timely diagnosis and prompt treatment with rehydration and electrolyte correction are essential for recovery. This case serves as an important reminder that PBS should be considered in patients with gastric balloons who present with such symptoms, and appropriate management can lead to rapid improvement.

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The Relationship Between Intraparenchymal Hemorrhage and QTc Interval

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****ABSTRACT****

****Background**:** Intraparenchymal hemorrhage (IPH) is a form of brain hemorrhage often associated with traumatic brain injury and other neurological conditions. It is linked to high morbidity and mortality, and accurate prognostication is essential for clinical decision-making. One marker that may aid in predicting patient outcomes is the QTc interval, a measurement of the heart's electrical activity that is obtained from an electrocardiogram (EKG). Prolonged QTc intervals have been associated with a variety of conditions, including cardiovascular diseases and neurological disorders. This study investigates the relationship between QTc interval and mortality in patients with IPH.

****Aim**:** The purpose of this study is to explore whether the QTc interval could serve as a prognostic factor for mortality in patients with intraparenchymal hemorrhage, with particular focus on short-term (one-week) and longer-term (one-month) mortality outcomes.

****INTRODUCTION****

Intraparenchymal hemorrhage (IPH) is a serious type of intracranial hemorrhage, where bleeding occurs directly within the brain tissue. It is most commonly caused by severe trauma, hypertension, or the rupture of vascular malformations. IPH can lead to a range of neurological impairments, from mild deficits to full loss of consciousness, coma, and death. Mortality rates for IPH can be high, particularly when large hemorrhages or significant brain injury are involved.

QT prolongation, measured as the corrected QT interval (QTc), has been recognized as a risk factor for various clinical outcomes, including arrhythmias, cardiovascular events, and even death. While the QTc interval is most commonly used in cardiovascular settings, there is growing evidence to suggest that it may also provide valuable prognostic information in patients with neurological injuries such as IPH.



The QTc interval represents the time it takes for the heart's electrical system to reset after each heartbeat. When prolonged, it can be indicative of an underlying pathological process that may affect multiple organ systems, including the heart and brain. Therefore, investigating the relationship between QTc interval and mortality in IPH patients may provide insights into the systemic nature of the disease and its potential for long-term complications.

****MATERIALS AND METHODS****

****Study Design and Participants****

This study was conducted as a retrospective cohort study at Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi, a tertiary care hospital in Istanbul, Turkey, between January and June 2024. The study included 81 patients who were diagnosed with intraparenchymal hemorrhage and admitted to the emergency department.

****Inclusion Criteria**:**

- Adult patients (≥ 18 years old)
- Diagnosis of intraparenchymal hemorrhage confirmed by CT or MRI imaging
- Availability of a baseline EKG within 24 hours of admission
- Written informed consent for participation in the study (or family consent when the patient was incapacitated)

****Exclusion Criteria**:**

- Patients with other types of intracranial hemorrhage (e.g., subarachnoid hemorrhage)
- Patients with known pre-existing arrhythmias or conditions affecting QT interval (e.g., congenital longQT syndrome, chronic use of QT-prolonging drugs)
- Patients who died within 24 hours of admission

****Data Collection****



Patient demographics, including age, sex, and medical history (hypertension, diabetes, etc.), were collected from the hospital records. The volume of the hemorrhage was measured from the initial brainimaging. The Glasgow Coma Scale (GCS) score was used to assess the level of consciousness on admission.

The QTc interval was measured from the first EKG obtained within 24 hours of admission. The QTc was calculated using the Bazett's formula. Mortality was assessed at two time points: one week and one month following admission. The primary outcome was one-week mortality, while the secondary outcome was one-month mortality.

****Statistical Analysis****

Statistical analysis was performed using SPSS version 26.0. Descriptive statistics were used to summarize the demographics and clinical characteristics of the participants. Spearman's rank correlation was used to assess the relationship between QTc interval and mortality at one week and one month. Univariate and multivariate Cox regression analyses were performed to evaluate the prognostic value of QTc interval, adjusting for potential confounders such as hemorrhage volume and GCS score. A p-value < 0.05 was considered statistically significant.

****RESULTS****

The study included 81 patients, with a mean age of 63.5 ± 12.3 years. The majority of patients were male (56%, n = 45). Hypertension was the most common comorbidity (72%, n = 58), followed by diabetes (32%, n = 26). The median hemorrhage volume was 32.5 mL (IQR: 17–62 mL). On admission, the median GCS score was 10 (IQR: 8–13), indicating a moderate level of consciousness impairment.

****QTc Interval and Mortality****

- ****One-Week Mortality****: A significant positive correlation was found between the QTc interval and one-week mortality (Spearman's Rho = 0.457, $p < 0.001$). This indicates that each millisecond increase in the QTc interval was associated with an increased risk of death within the first week following admission.



- ****One-Month Mortality****: No significant relationship was found between QTc interval and one-month mortality (Spearman's $Rho = 0.095$, $p = 0.397$). This suggests that while QTc prolongation may be an important marker for short-term mortality, its role in predicting long-term outcomes is less clear.

****Regression Analysis****

Univariate Cox regression analysis demonstrated that the QTc interval was a strong predictor of one-week mortality (hazard ratio [HR] = 0.279, $p < 0.001$). However, in multivariate analysis, the effect of QTc interval on mortality became less pronounced (HR = 0.000–0.004, $p = 0.025$), suggesting that other factors, such as hemorrhage volume and GCS score, may also play a significant role in predicting patient outcomes.



Triple Rule Out BT Acilde Gerekli mi?

Kemal Gökçek

Buca Seyfi Demirsoy Eğitim ve Araştırma Hastanesi, Acil Tıp Kliniği, İzmir

Akut göğüs ağrısı, acil servise başvuruların en yaygın nedenlerinden biridir ve zamanında teşhis ile tedavi gerektiren önemli klinik durumların başında gelir. Bu bağlamda, Akut Koroner Sendrom , Pulmoner Tromboemboli ve Aort Diseksiyonu gibi ciddi patolojiler en sık karşılaşılan nedenler arasındadır. Triple Rule-Out Bilgisayarlı Tomografi (TRO-BT), acil servise başvuran göğüs ağrılı hastaların tanısal değerlendirilmesinde giderek önem kazanan bir görüntüleme yöntemi olarak öne çıkmaktadır. Bu teknik, koroner arter hastalığı , pulmoner emboli ve akut aort sendromu gibi üç kritik durumu aynı anda görüntüleyebilme özelliğine sahiptir.

TRO-CT, çok dedektörlü bilgisayarlı tomografi kullanarak non-invazif koroner anjiyografi gerçekleştirir ve bu sayede koroner arterler, pulmoner arterler ve aorta aynı anda değerlendirilebilir. Bu yöntem, özellikle tanının hızla konulması gerektiği ve zamanın kritik önemde olduğu durumlarda büyük avantaj sunar. TRO-BT, ciddi patolojileri hızla dışlayarak gereksiz invazif girişimlerin önlenmesine yardımcı olur ve hasta yönetim süreçlerini optimize eder.

Bununla birlikte, TRO-BT'nin uygulanmasında bazı zorluklar bulunmaktadır. Standart koroner BT anjiyografisine kıyasla daha uzun bir tarama süresi ve dolayısıyla daha yüksek radyasyon maruziyeti söz konusudur. Ayrıca, bu yöntemin görüntülerinin doğru bir şekilde yorumlanması, yüksek düzeyde uzmanlık gerektirir. Yüksek riskli hastalarda daha hedeflenmiş görüntüleme stratejilerine ihtiyaç duyulabileceği de göz önünde bulundurulmalıdır.

Sonuç olarak, TRO-BT, akut göğüs ağrısı şikayetli hastaların acil serviste tanısal değerlendirilmesinde klinik karar verme süreçlerini hızlandıran ve hasta sonuçlarını iyileştiren önemli bir araçtır. Ancak, yöntemin uygulanmasında radyasyon riski ve hasta seçimi dikkatle değerlendirilmelidir. TRO-BT'nin geliştirilmesi ve yeni algoritmalar ile desteklenmesi, acil tıbbı pratiğinde daha geniş uygulama alanı bulmasına olanak sağlayacaktır.



Triple Rule-Out Computed Tomography: A Diagnostic Tool in the Management of Acute Chest Pain

Kemal Gökçek

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Acute chest pain is one of the most common reasons for emergency department visits and represents a critical clinical condition requiring prompt diagnosis and treatment. Among the most frequent causes are Acute Coronary Syndrome, Pulmonary Thromboembolism, and Aortic Dissection. Triple Rule-Out Computed Tomography (TRO-CT) has emerged as an important diagnostic tool for the evaluation of patients presenting with acute chest pain in the emergency department. This imaging technique simultaneously assesses three critical conditions: coronary artery disease, pulmonary embolism, and acute aortic syndrome.

TRO-CT uses multi-detector computed tomography to perform non-invasive coronary angiography, enabling simultaneous visualization of the coronary arteries, pulmonary arteries, and the aorta. This approach is particularly advantageous when time is critical, as it allows for rapid exclusion of life-threatening conditions and helps optimize patient management by avoiding unnecessary invasive procedures.

However, there are challenges associated with the implementation of TRO-CT. Compared to standard coronary CT angiography, it involves a longer scanning time, which leads to higher radiation exposure. Additionally, accurate interpretation of TRO-CT images requires a high level of expertise, and the use of more targeted imaging strategies may be necessary for high-risk populations.

In conclusion, TRO-CT represents a significant advancement in the diagnostic evaluation of patients with acute chest pain in the emergency department, facilitating faster clinical decision-making and improving patient outcomes. However, careful consideration of radiation risks and patient selection is crucial in its application. As TRO-CT continues to evolve, particularly with the integration of machine learning algorithms, its role in emergency medicine is likely to expand, offering new opportunities to enhance diagnostic accuracy and patient safety.



Tamamlayıcı ve Geleneksel Tıp Uygulamaları (Akupunktur, Fitoterapi, Sülük, Homeopati, Kupa Terapisi, Ozon Terapisi)

Sivas Numune Hastanesi, Acil Servis

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Başlıca tamamlayıcı ve geleneksel tıp uygulamaları arasında; akupunktur, fitoterapi, sülük tedavisi, homeopati, kupa terapi, ozon terapi, mezoterapi, apiterapi, proloterapi, osteopati, refleksoloji, hipnoz, larva uygulaması, müzik terapi yer alır. Uygulamalar, Bakanlıkça yetkilendirilmiş ünite ile uygulama merkezlerinde ve ilgili alanda “uygulama sertifikası” bulunan tabip ve sadece diş hekimliği alanında olmak üzere diş tabibi tarafından yapılabilir. Uygulama alanında temel eğitimi bulunan sağlık meslek mensupları merkez ve ünitelerde sertifikalı tabiplere uygulamada yardımcı olabilirler. Diş hekimliği uygulama ve araştırma merkezlerinde, diş hastanelerinde ve ağız ve diş sağlığı merkezleri ile diş polikliniklerinde sadece diş hekimliği alanında uygulama yapılabilir.

Akupunktur

Latince acus (iğne) ve pungere (delmek) veya punctura (batırmak) kelimelerinden köken alır. 4500 – 5000 yıllık bir geçmişi vardır. Huang Di Nei Jing tarafından yazılan ‘Sarı İmparatorun İç Hastalıkları’ kitabı yazılı olarak ilk bahsedildiği kaynaktır. Geleneksel Çin Tıbbında, hastalıkların vücutta meridyen adı verilen kanallarda dolaşan yaşam enerjisinin (Qi) akışındaki bozukluklar nedeni ile oluştuğu varsayılmaktadır. Akupunkturla, vücuttaki meridyenler üzerindeki belli noktalara iğne batırmak suretiyle, bozulan enerji akışının düzeltilmesi amaçlanır. Vücudumuzda 14 adet meridyen üzerinde yaklaşık 600 adet akupunktur noktası bulunur. Yan etkilerinin az olması, düşük maliyeti ve uygulama kolaylığı nedeniyle sık tercih edilen ve giderek artan uygulanma oranlarına sahiptir. Yapılan bir çalışmada 3182 hastanın rutin tedavi maliyetleri ile akupunktur karşılaştırılmış olup toplam maliyet açısından daha ucuz ve etkin bir tedavi olduğu gösterilmiştir. Migren ve diğer baş ağrıları, boyun, sırt, omuz ve kol ağrıları, bel ağrıları, romatizmal ağrılar, zona zoster, trigeminal nevralji, hiperemesis gravidarum, astım, alerjik rinit, enürezis nokturna, dismenore, obezite, sigara, alkol ve madde bağımlılığında, insomnia ve psikosomatik bozukluklarda endikedir.



Fitoterapi

Phyton (bitki) ve therapeia (tedavi) kelimelerinden üretilen ve ilk olarak Fransız bir hekim olan Henri Leclerc tarafından kullanılan fitoterapi terimi Dünya Sağlık Örgütü (DSÖ) tarafından tıbbi bitkilerin ve bunların türevlerinin farmakolojik özelliklerine göre, önleyici

veya tedavi edici amaçlarla doğru kullanımına izin veren tıbbi disiplin olarak tanımlanmıştır. Dünya nüfusunun yaklaşık %80'i en az bir fitoterapotik yöntem kullanmıştır. Yapılan bir çalışmada kanser hastalarının %35,9'unun bir fitoterapi yöntemi kullandığı ve bunların

%50'sinin takipli olduğu hekime bu konuda bilgi vermediği görülmüştür. Her ne kadar masum olarak görülse de birçok tedavi yönteminde olduğu gibi kullanılan ilaçlarla

etkileşime girebilir, etkinliği azaltabilir veya direk toksik etki yaratabilir. Özellikle 60 yaş üstü hastalarda, karaciğer ve böbrek yetmezliği olanlarda ve obez bireylerde istenmeyen

etkilerin oluşma ihtimali artar. Dünyada etken doz ve yöntemlerin standardizasyonu

açısından Avrupa Bilimsel Fitoterapi Kooperatifi, DSÖ veya Almanya'daki Komisyon E gibi kuruluşların çalışmaları devam etmektedir.

	Kullanım	Etkileşim
Sarımsak	KB, kolesterol ve TG ↓, antioksidan, antiinflamatuaretki	Saquinavir, etoposid, paklitaksel, vinblastin ve vinkristin etkinliğinde ↓, varfarinetkinliğinde ↑
Ginkgo	Nörodejeneratif hastalıklar, tinnitus, vertigo, glokom, periferik vasküler hastalıklar, kognitif hastalıkların ve Alzheimer tedavisi	Antiagregan kullananlarda kanamayı artırabilir
Ginseng	Fiziksel güç ve konsantrasyon artırıcı	Varfarin ↓, antidiyabetiklerin ↑
Sarı Kantaron	Hafif ve orta dereceli depresyon	Klaritromisin, benzodiazepin, siklosporin, diltiazem, atorvastatin, estradiol, sildenafil, indinavir, digoxcin, matineb alfentanil, midazolam, lidokain, kalsiyum kanal blokörleri plazma düzeyi ↓
Zencefil	Bulantı, kusma ve organik nedenli olmayan vertigo, antioksidan, antiinflamatuaretki	Antiagregan kullananlarda kanamayı artırabilir



Sülük Tedavisi

Tedavide sülük kullanılmasına tıbbi sülük tedavisi veya hirudoterapi denir. Yaklaşık 600'den fazla sülük türü vardır. Bu türler arasında sadece 15 tür tıbbi olarak kullanılır. Tıbbi amaçla kullanılmayan sülükler genellikle tek renkli, çizgisiz ve tüylüdür. Tedavide genellikle kullanılan türler arasında *Hirudo medicinalis* ve *Hirudo verbana* bulunur. *H. medicinalis* Avrupa'da yaygın olarak bulunurken *H. verbana* türü Akdeniz havzasında yaygındır. İlk olarak milattan önce 1500'lü yıllarda Mısır hiyerogliflerinde, sonrasında ünlü Türk hekim İbn-i Sina'nın çeşitli cilt hastalıklarında kullanımını önerdiği eski bir uygulamadır. Sülüklerin ağzında yıldız şeklinde iz bırakan üç adet çene ve bu çenelerin her birinin üzerinde ise yaklaşık 100 minik diş bulunur, arka (kuyruk) kısmında sülüğün yapışmasını sağlayan bir emme aygıtı vardır. 1884 yılında sülük ısırıklarında tespit edilen 'hirudin' antikoagülan olarak tanımlanmıştır. 2004 yılında ABD İlaç ve Gıda Dairesi *H. medicinalis*'in plastikrekonstrüktif cerrahide tedavi amaçlı kullanımına onay vermesi ile birlikte, tıbbi sülük tedavisi modern çağa da ayak uydurmuştur. Bir sülük kendi ağırlığının 10 katına kadar kan emebilir. İşlemler steril, temiz ve kokusuz bir ortamda tedavi başına 2-5-7-10 adet sülük ile yapılır. Sülüğün nereye tutacağı ile ilgili net bir bölge yoktur. Sülükler işlem sırasında mümkün olduğunca rahatsız edilmemeli sülüğün kendisinin ayrılması beklenmelidir. Yaklaşık bir saat boyunca beslenen sülük yaklaşık 5-15 ml kan emer ve kendiliğinden ayrılır.

Güç kullanılarak sülüklerin ayrılması kuzmaları sonucu yara yeri enfeksiyonuna neden olabilir. İşlem sonrası sülükler %70 alkol çözeltileri ile imha edilmelidir. Sülük ısırıklarında 106 adet farklı kimyasal bileşen tespit edilmiştir. Analjezik, antienflamatuvar, antikoagülan, antimikrobiyal ve anti-platelet etkileri vardır. Mikrovasküler replantasyon, travma ve rekonstrüktif cerrahiden sonra venöz konjesyonun önlenmesi amacıyla, osteoartrit, lateral epikondilit ve alt ekstremitte variköz ven hastalarında ağrıyı azaltma amaçlı kullanılmaktadır. Aktif enfeksiyon varlığı, anemi, cerrahi işlem öncesi, gebelik, kanama diyatezlerinde, KT ve RT alanlarda, 18 yaş altındaki hastalarda, şiddetli psikiyatrik bozukluğu olanlarda, hemodiyaliz hastalarında, kemik iliğinin baskılandığı durumlarda uygulanmaz.



Homeopati

Homoios' (benzer) ve 'pathos' (acı çekmek) kelimelerinden türetilen homeopati "benzeri benzer ile tedavi etme" olarak tanımlanabilir. Hastalık belirtilerini sağlam bir insanda ortaya çıkarabilecek maddelerin çok düşük dozlarda hastaya verilmesiyle tedavi edilebileceği inancıyla çalışır. Çoğu zaman verilen ilaçta etken madde olmayabilir. Farmakolojik etkinliği yoktur. Dolayısıyla yan etkisi minimaldir.

Kupa Terapisi

En eski tamamlayıcı ve geleneksel tıp uygulamalarından olan kupa terapisinde birçok sınıflandırma yapılsa da en sık insizyon yapılma durumuna göre kuru kupa terapisi (KKT) ve yağ kupa terapisi (YKT, hacamat) olarak sınıflandırılabilir. Etki mekanizmasında negatif basınçla doku kanlanmasını artırarak daha fazla besin ve oksijen sağlanması, bu sayede lokal olarak metabolizma hızı, hormon ve enzim aktivitesinin artışının rol oynadığını düşünülür. 2014 yılında Resmi Gazete'de yayınlanan yönetmelikle bir tedavi yöntemi olarak kabul edilmiştir. Uygulamalar ülkesel ve kültürel farklılıklar gösterir. Uzak Doğu'da KKT, İslam Coğrafyası, Orta Asya ve Doğu Avrupa'da YKT yaygındır. Tedavide kupalar 5-10 dakika sürede uygun negatif basınçla uygulanır. YKT'de uygulanacak alan temizlendikten sonra cilde 0,1-0,2 mm'lik yüzeysel kesiler atılarak uygulama yapılır. Derin insizyonlarda kozmetik sorunlar oluşabilir. İnsizyonların vücut katlantılarına paralel olmasına özen gösterilmelidir.

Kapiller mümkün olduğunca zedelenmemeli, bir miktar intersisyonel alandaki sıvı çıkışı gözlemlendikten sonra işlem tamamlanmalıdır. YKT'de işlemin cilt kan akımının daha fazla olması nedeniyle aç iken uygulanması önerilir. En sık uygulama alanı sırt bölgesidir. YKT'de alınan kan miktarı ile tedavi arasında ilişki yoktur. YKT'de ülkemizde tedavi öncesi ve sonrasındaki 48 saat boyunca hayvansal gıdadan uzak durulması ve ay takvimine göre 3. haftada ve 15-17-19-21. günlerde yapılmasına özen gösterilir. Bu durum ayın çekim gücü sonucu toksinlerin daha yüzeyelleştiği ve YKT ile atıldığı görüşüne dayanır. Fibromyalji, romatizmal durumlardaki kronik ağrı, eklem tutukluluğu ve yorgunluk, kas - eklem mekanik ağrıları, migren ve organik nedenli olmayan diğer baş ağrıları, uyku bozuklukları ve kabızlık endikasyonları arasındadır. Tromboflebit, aktif yara ve enfeksiyon varlığı, anemi, kanama bozuklukları durumlarında önerilmez.

Ozon Terapisi

Ozon (O₃) gazı üç oksijen atomundan oluşan, kararsız, kuvvetli okside edici, keskin kokulu ve renksiz olan bir gazdır. Virüs, bakteri, mantar vb. mikroorganizmaların biyolojik membranlarını oksitleyerek parçalaması nedeniyle, uzun süre dezenfektan olarak

kullanılmıştır.



İmmunomodülatör, antimikrobiyal, antiinflamatuvar, antihipoksik,

antioksidan, yara yeri iyileştirici etkileri vardır. Hem hücresel, hem de humoral immün sistemi uyardığı, immüno kompetan hücrelerin artmasını ve immünglobulinlerin sentezini tetiklediği gösterilmiştir. Çeşitli uygulama yöntemleri vardır.

- Major otohemoterapi: 50-100 cc kan uygun oranda, normobarik olarak karıştırılıp geri verilir.
- Minör otohemoterapi: 2-10cc kan ozon gazı ile karıştırılıp intramuskuler olarak uygulanır.
- Rektal veya vajinal insufflasyon
- Torbalama metodu: Sıklıkla extremitelerde kullanılan haricen ozon gazı uygulamasıdır.
- İntradiskal uygulama: Skopi eşliğinde steril ortamda intervertebral disklere uygulanması işlemidir.
- Kas - iskelet sistemi uygulamaları: Deri içi, deri altı, kas içi veya eklem içi uygulamalardır.

Eklem, tendon ve ligaman hasarları, vertebra ve disk patolojileri, myofasial ağrı ve fibromyalji, diyabetik yaralar, periodontitis, gingivit, nöropatik ağrı, revaskülarizasyon şansı olmayan iskemik yaralarda endikedir.

Hava embolisi nedeniyle intravenöz olarak verilmez. G6PDH eksiliği olanlarda oksidatif stresi artırdığı için, graves hastalarında, masif kanaması olanlarda, malign hipertansiyonda ve platelet < 50000/mm³ olduğu durumlarda kontrendikedir.

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Acil Obstetrik Ultrason

Dr Öğr Üyesi Serkan ŞAHİN

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Ankara Bilkent Şehir SUAM

Acil Tıp AD

Giriş

Ultrason, gebelik sürecinde sık kullanılır, güvenilirdir. Fetal gelişimin izlenmesinde ve maternal sağlıkla ilgili komplikasyonların erken tanısında önemlidir. Fetal anomalilerin tanısı, gestasyonel yaşın doğrulanması ve doğum öncesi komplikasyonların tespiti gibi kritik alanlarda önemli bir araçtır. Hızlı tanı koyma yeteneği ile maternal ve perinatal mortaliteyi azaltmada önemlidir. İlk kez 1960'larda obstetrisyenler tarafından gebelik görüntülemesinde kullanılmış. Acil tıp hekimleri, 1990'larda ultrasonu kullanmaya başlamış.

Obstetrik Acillerde Ultrasonun Önemi

AS başvurularının %2'si **gebelik ve doğumla ilgili** tanılar içerir (Cairns C, Kang K. National hospital ambulatory medical care survey; 2022). ACEP'nin (American College of Emergency Physicians) 2016 yılı acil ultrason rehberine göre, gebelik değerlendirmesi de dahil olmak üzere yerinde ultrason (POCUS) kullanımı, **acil tıp hekimlerinin temel becerileri arasında yer alır ve yetki alanına dahildir** (Ultrasound Guidelines: Emergency, Point-of-Care and Clinical Ultrasound Guidelines in Medicine. Ann Emerg Med 2017).

Obstetrik USG; rüptüre olmuş ektopik gebelik ile tekrar başvuru olasılığını azaltır. (Ultrasound Guidelines: Emergency, Point-of-Care and Clinical Ultrasound Guidelines in Medicine. Ann Emerg Med 2017). 2015 yılında yapılan bir çalışma, transvajinal POCUS değerlendirmesi yapılan hastaların **acil serviste kalış süresinde 3 saate kadar azalma** olduğunu ortaya koymuştur (Panebianco NL, et al. The utility of transvaginal ultrasound in the ED evaluation of complications of first trimester pregnancy. Am J Emerg Med 2015). 2019 yılında yapılan bir diğer çalışma, **birinci trimester gebeliklerinde** POCUS değerlendirmesi yapılan hastaların **AS de kalış sürelerinin, radyoloji departmanında yapılan değerlendirmelere kıyasla önemli ölçüde azaldığını** göstermiştir (Beals T, et al. Point of care ultrasound is associated with decreased ED length of stay for symptomatic early pregnancy. Am J Emerg Med 2019)

Obstetrik Acillerde Ultrasonun Önemi Endikasyonlar

1. Trimester

Son adet tarihinden (SAT) ilk 13 haftalık periyodu kapsar.

Klinik Endikasyonlar



IU Gebelik tespiti. Ektopik gebelik şüphesinin değerlendirilmesi. Vajinal kanamanın değerlendirilmesi. Kardiyak aktivitenin varlığının tespiti. Şüpheli mol hidatiformun değerlendirilmesi

2. ve 3. Trimester:

Acil tıp açısından bakıldığında temel amaç *fetal iyilik halinin tespit edilmesidir.*

Klinik Endikasyonlar

Vajinal kanamanın, doğumun, travmanın ve karın ağrısının ilk değerlendirilmesi. Fetal kardiyak aktivite tespiti. Gestasyonel yaşın tahmin edilmesi. Plasenta previa'nın dışlanması. Fetal pozisyonun belirlenmesi. Travmatik veya obstetrik olmayan karın ağrısının değerlendirilmesi

Acil Tıpta Obstetrik Ultrason Yaklaşımı Genel Yaklaşım

Gebelikte Ultrason Teknikleri

-Transabdominal -Transvajinal

TVUS → invaziv ve daha az konforlu, **öncelikle TABUS**. Eğer yeterli görselleştirme sağlanırsa, TVUS'a gerek kalmaz.

Acil Tıpta Obstetrik Ultrason Yaklaşımı- Transabdominal Yaklaşım (Sagittal Pencere)

Suprapubik bölgede orta hat longitudinal olarak başlayıp uterus ayırt edilir. Probun belirtici hastanın başı yönüne. Ekranın **sol kenarında fundus, sağ kenarında ise serviks** (Şekil A). Rahim görüntüledikten sonra, probu tarama düzleminde eğerek rahmi süpürme (sweeping) işlemi yapılır ve intrauterin yapılar veya bulgular belirlenir. Pelvis taranırken, serbest sıvı belirtileri (örneğin **Douglas poşunda sıvı birikimi veya bağırsak çevresinde sıvı**) olup olmadığına dikkat edilmelidir. Bu durum, uygun klinik senaryoda rüptüre ektopik gebeliği gösterebilir.

Acil Tıpta Obstetrik Ultrason Yaklaşımı- Transabdominal Yaklaşım (Transvers Pencere)

Sagittal tarama tamamlandıktan sonra, transdüser 90 derece sola döndürülerek gösterge işareti hastanın sağ tarafına bakacak şekilde transvers görüntü alınır. Mesane bir sonografik pencere olarak kullanılarak, rahmin fundusundan servikse kadar tüm yapıları taranır

Acil Tıpta Obstetrik Ultrason Yaklaşımı- Transvajinal Sagittal Pencere

Hastalar, transdüserin tam hareket aralığını sağlamak için **litotomi pozisyonuna** yerleştirilmelidir. Görüntüleme ve rahatlık açısından, işlem öncesi hastanın mesanesini boşaltması önerilir. Transvajinal probu **4-5 cm** kadar vajina içe belirteç tavana doğru yönlenmiş şekilde yerleştirin. Fundus yukarı doğru açı vererek. Serviks proba aşağıya yön vererek görüntülenebilir. Rahmin orta hattı, **hiperekojenik endometriyal çizgi** ile tanımlanabilir. Orta hat bulunduktan sonra, **intrauterin gebelik (IUP) veya ektopik gebelik** belirtileri aranarak rahim boyunca süpürme işlemi yapılır.

Acil Tıpta Obstetrik Ultrason Yaklaşımı- Transvers Pencere



Sagittal düzlemdeki süpürme işlemi tamamlandıktan sonra, **transdüser 90 derece sola döndürülür** ve gösterge işareti hastanın sağ tarafına bakacak şekilde koronal bir görüntü elde edilir. Rahmin görüntülenmesi tamamlandıktan sonra, **adnexaları ektopik gebelik belirtileri açısından değerlendirmeye** geçilmelidir.

Acil Tıpta Obstetrik Ultrason Yaklaşımı- İyi Görüntü Elde Etme İpuçları

Abdominal pelvik USG için hastanın **mesanesi dolu** olmalıdır. Transvajinal pelvik USG için **mesane boş** olmalıdır. Her zaman longitudinal konumlandırma ile başlayın ve uterus ve serviksi ayırt edin. Uterusun orta hat çizgisi her zaman pelvisin orta hat çizgisinde değildir. Görüntü kalitesini arttırmak ve hassasiyet olup olmadığını belirlemek için overlere (veya diğer adneksiyal kitlelere) transvajinal probun ucuyla dokununuz.

Acil Durumlarda Obstetrik Ultrason Kullanımı POCUS (Point-of-care Ultrasound)

KISITLILIKLAR

Her zaman **kullanıcının deneyimine bağlı** olduğu unutulmamalıdır. Acil tıp doktorları tarafından yapılan USG'ye güven duyulmama POCUS, ayrıntılı bir prenatal veya tanısal ultrason taramasının yerine geçmez.

(NOT: POCUS'ta negatif bir bulgu, ciddi bir tanının olasılığını tamamen dışlamaz).

Özet

Ultrason, acil servise gebelikle ilgili şikayetlerle başvuran hastaların tanısal değerlendirilmesinde kritik bir öneme sahiptir. Ayrıca, gebelik sırasında meydana gelen kalp hastalığı, kolesistit, apandisit ve derin ven trombozu gibi diğer tanısal şikayetler için de tercih edilen görüntüleme yöntemi olabilir. Bunun nedeni, ultrasonun hem anne hem de fetus için düşük radyasyon riski taşımasıdır. Ancak, ultrason görüntüleme çalışmaları yapılırken gebelik boyunca meydana gelen anatomik farklılıkların dikkate alınması önemlidir.



İNTRAVENÖZ VE TRANSKUTANÖZ PACEMAKER

Dr. Öğr. Üyesi Ramiz YAZICI

İstanbul Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

Acil Tıp Kliniği

Kalp pili teknikleri geçici ve kalıcı olarak iki grupta incelenilir. Geçici teknikleri denemeden farmakolojik yaklaşım denenebilir. İntravenöz, transkutanöz, epikardiyal ve transözofageal yaklaşımlar ise geçici teknikleri oluşturur.

İlk kez 1952’de Paul Zoll tarafından transtorasik pulsatil akım vererek uygulanan geçici PM, 1982’ de transkutanöz sistem yeniden gündeme gelmesi ile geliştirilerek ilk FDA onayı almıştır.

Geçici kardiyak pacemaker (PM) vital organ perfüzyonunun bozulduğu hipotansiyon durumlarında intrensek ileti sistemi bozulmuş kalbin normal hız ve ritmini sağlamak amacıyla uygulanır. Aslında hastaya kalıcı PM uygulanana kadar hastanın hayati riskini minimize etmeye çalıştığımız bir köprü uygulamadır; dolayısıyla acil servislere başımıza gelebilecek, kavramamız gereken, yetkin olmanın önemli olduğu bir girişimdir. Hastaya geçici PM uygulamadan önce Atropin –Dobutamin –Adrenalin –İsoprenalin gibi farmakolojik yöntemler denenebilir. Yanıt alamadığımızda ya da seçenek olarak elimizde geçici PM olduğunda ise İntravenöz – Transkutanöz – Epikardiyal – Transözofageal gibi yaklaşımlara geçilir. Yukarıda da bahsettiğimiz gibi geçici pacemaker dört teknikle uygulanır:

- Transkutanöz (Acil Serviste sık kullanılır.)
- Transvenöz
- Epikardiyal (Kardiyak Cerrahide kullanılır.)
- Transözofageal (Ağrılı olduğu için pek tercih edilmez.)

Epikardiyal pace, transvenözle beraber koroner yoğun bakım ünitesinde tercih edilen yaklaşımlardandır. PAC (pulmoner arter katater paceing) ve transtorasik teknik gibi daha az sıklıkla kullanılan yaklaşımlar da var. Transkutanöz teknikte transtorasik pedler yoluyla dışarıdan yaklaşım uygulanırken, transvenöz teknikte internal olarak transvenöz endokardiyal kablolar kullanılır. Epikardiyal teknikte ameliyat sırasında yerleştirilen atriyal veya ventriküler epikardiyal kablolar kullanılarak internal yaklaşım sağlanırken, transözofageal teknikte ise internal yaklaşım atriyal uyarım ve kayıt için kullanılan bir özofageal elektrot aracıyla sağlanır.

Geçici kardiyak pacemaker endikasyonları genel olarak; kalıcı pacemaker disfonksiyonu, taşiaritmi ve bradikardiyal olarak gruplandırılabilir. Geçici PM; Geçici bradikardiyalar için kesin tedavi iken, dediğimiz gibi kalıcı PM için köprüdür. Kalıcı kardiyak pil için semptomatik herhangi bir endikasyon potansiyel olarak geçici kardiyak pil için bir endikasyondur. Ancak, geçici kardiyak pil en sık semptomatik bradikardiyası olan hastalarda, çoğunlukla atrioventriküler (AV) nodal blok nedeniyle kullanılır. Bazı durumlarda ise, taşikardilerin oluşmasını önlemek için hızlı geçici kalp pili takılması kullanılabilir:



● **Atriyal fibrilasyon (AF) ve atriyal flutter (AFL):** Özellikle kalp ameliyatından sonra çalışılmıştır. AF ve AFL'yi önlemek için overdrive pacing (cihazın hastanın kalp hızının üzerinde bir hıza ayarlanarak kullanılması) kullanılmıştır, ancak beta blokerler genellikle tercih edilen tedavidir. Overdrive pacing'in potansiyel etkinliği, koroner arter baypas greft ameliyatı geçiren ve ameliyattan sonraki ikinci günde antiaritmik ilaç kullanmadan sinüs ritminde olan 96 hastada yapılan randomize bir çalışmada gösterilmiştir. 24 saat boyunca overdrive pacing, atriyal fibrilasyon insidansını önemli ölçüde azaltmıştır (%10'a karşı %27); ama daha fazla çalışmaya ve kanıta ihtiyaç vardır.

● **Ventriküler taşikardiler** — Bazı ventriküler taşikardiler hızlı pacing ile önlenabilir. Bir örnek, uzun QT aralığıyla ilişkili polimorfik bir ventriküler taşikardi olan torsades de pointes'tir (TdP). Dakikada 90 ila 110 atım arasındaki hızlarda atriyal veya ventriküler pacing, QT aralığını kısaltarak ve taşikardiyi tetikleyebilecek prematür ventriküler kompleks (PVK)'leri önleyerek TdP'nin başlamasını önleyebilir. Bu yaklaşım yaygın olarak kullanılmaz ancak bazı hastalar için etkili olabilir.

PM endikasyonlarını daha detaylı sıralarsak;

1. Semptomatik veya hemodinamik anstabil bradikardi/AV bloklar zaman kazanmak için medikal tedavi denenebilir. Anstabil hasta; hipotansiyon, mental durum değişikliği, anjina, dispne, pulmoner ödem gibi hayati riski bulunan hastadır.
2. Anstabil supraventriküler taşikardisritmiler: Overdrive pacing denebilir, farmakolojik tedavi ve elektriksel kardiyoversiyona yanıt alınmazsa denenmelidir.
3. Torsade de pointes: Overdrive pacing tercih edilir.
4. Rekürren monomorfik VT: Overdrive pacing uygulanabilir.
5. Ön yüz veya inferior miyokart infarktüsü (MI), digoxin overdozu, cerrahide anestezi öncesi vb. : Bradikardi riskine karşı profilaktik amaçlı kullanıma hazır şekilde bulundurulmalıdır.

Genel olarak, geçici kardiyak PM, bir bradiaritminin semptomlara ve/veya ciddi hemodinamik bozukluğa neden olması ve kalıcı kardiyak PM'Nin hemen endike olmaması, mevcut olmaması veya kalıcı bir kalp pili takmanın riskinin potansiyel faydayı aşması durumunda endikedir. Geçici kardiyak PM'nin temel nedeni, bradikardi nedeniyle oluşan ciddi semptomları ve/veya hemodinamik instabiliteyi tedavi etmek veya hemodinamik instabiliteye neden olabilecek potansiyel bozulmayı önlemektir. Geçici PM'nin kullanıldığı geri dönüşümlü durumlar; geçici kardiyak hızlandırma, kalıcı hızlandırma gerektirmeyecek akut ve geri dönüşümlü bir nedenden kaynaklanan bradikardi için endikedir. Buna şunlar dahildir:

1. Akut Miyokard Efarmktüsü: Kalıcı kalp pili gerekli olmasa bile, akut MI hastalarında geçici kardiyak pil gerekebilir. Tromboliz ve anjiyoplasti ile revaskülarizasyon stratejileri, genellikle daha az miyokardiyal hasar, bradikardi ve iletim anormalliklerinin oluşma ihtimalinin daha yüksek olması nedeniyle geçici ve kalıcı kardiyak pil ihtiyacı önemli ölçüde azaltmıştır. Ancak, geçici kardiyak pil ihtiyacı olabilir. Akut MI durumunda Tromboliz ve anjiyoplasti gibi revaskülarizasyon stratejileri ile genellikle miyokardiyal hasar, bradikardi ve



iletim anormalliklerinin oluşma ihtimali azalsa da; önemli husus, asemptomatik veya geçici olsa bile bradikardi olduğunda koroner kan akışının azalmasına ve miyokardiyal perfüzyonun azalmasına neden olabilmektedir. Amerikan Kalp Derneği ve Amerikan Kardiyoloji Koleji kılavuzları, anterior/lateral MI olan hastalarda bifasiküler blok veya yüksek dereceli AV bloğu ve/veya yeni dal bloğu (özellikle sol dal bloğu) olursa geçici PM önermektedir. Tabi ki kılavuzları bir hastanın klinik durumuna uygularken de geçici PM kablosu yerleştirmenin risklerini ve faydalarını tartarken klinik öngörü kullanılmalıdır.

2. Elektrolit Bozuklukları: hiperkalemi
3. Toksisiteler: [digoksin](#) toksisitesi
4. İlaça Bağlı Durumlar: beta bloker duyarlılığı veya aşırı dozu ve kalsiyum kanal bloker duyarlılığı veya aşırı dozu
5. Operasyona ve Travmaya Bağlı Durumlar:
 - 5.1. Operasyona bağlı: Kalp ameliyatından sonra sinüs veya AV düğümünde veya His-Purkinje sisteminde yaralanma olabilir. Koroner bypass greft ameliyatından kaynaklanan sinüs veya AV düğümündeki hasar genellikle zamanla iyileşir. Buna karşılık, kapak ameliyatından sonra AV düğümünde veya His-Purkinje sistemindeki hasar çözülemeyebilir ve genellikle kalıcı bir kalp pili gerekir. Kalp nakli, sinüs düğümü hasarı ve zamanla iyileşen işlev bozukluğu ile ilişkili olabilir. Birden fazla potansiyel etiyoloji vardır, ancak geçici kalp pili gerektiren iletim sistemi anormallikleri nadirdir.
 - 5.2. Kardiyak travma: Künt göğüs travmasıyla birlikte görülen bir motorlu taşıt kazasından sonra meydana gelir.
6. Enfeksiyöz Durumlar: Lyme hastalığı, Orta ve Güney Amerika'da en sık görülen Chagas hastalığı, Trypanosoma cruzi'den kaynaklanır. En sık sağ dal bloğu, hemiblok (sol ön veya sol arka fasiküler blok) veya tam kalp bloğu ile sonuçlanır ve ayrıca kardiyomiyopatik bir duruma yol açar. His-Purkinje sistemine zarar veren ve AV bloğuna neden olan aort kapak absesi ile birlikte görülen subakut bakteriyel endokardit, antimikrobiyal ve cerrahi tedaviden sonra düzelebilir veya düzelmeyebilir.

Geçici kalp pili kullanımının faydalarını tartmak önemlidir. Aralıklı iletim anormallikleri olan hastalar için geçici bir kalp pilinin ne zaman ve gerekip gerekmediği zor bir konudur. Örneğin, presenkop nedeniyle hastaneye yatırılan ve sürekli izlemede tek bir beş saniyelik duraklama belgelenen bir hasta, özellikle takılmasının olası herhangi bir faydayı ortadan kaldıracak komplikasyonlara neden olabileceği için geçici bir kalp pili ihtiyaç duymayabilir. Benzer şekilde, stabil bir kaçış ritmine sahip tam kalp bloğu olan bir hasta genellikle kalıcı bir kalp pili bekleyebilir; böyle bir hastada geçici bir kalp pili, elektrot yerinden çıkarsa asistol riskiyle birlikte kalp pili bağımlılığına neden olabilir. Bu tür hastalarda, kalıcı bir kalp pili yerleştirilmeden önce yalnızca asistol riski varsa geçici bir kalp pili teli yerleştirmek en iyisidir.

Semptomatik bradikardileri veya geçici kardiyak PM için diğer endikasyonları olan hastalarda, özellikle yaşamı tehdit eden hemodinamik instabilitesi olan hastalarda, mutlak kontrendikasyon yoktur. Ancak, geçici transvenöz kardiyak pacing aşağıdaki durumlarda kaçınılmalı veya dikkatli kullanılmalıdır:

- Bradikardinin iyi tolere edildiği aralıklı, hafif veya nadir semptomları olan hastalarda rölatif kontrendikedir. buna yeterli ve "stabil" kaçış ritmine sahip semptomatik tam kalp bloğu veya yalnızca nadir duraklamalara sahip semptomatik sinüs düğümü disfonksiyonu dahildir.



• Biyoprotez triküspit kapaklı hastalarda, geçici kalp pili kablosu kapağa zarar verebilir. Mekanik triküspit kapak replasmanı olan hastalarda geçici bir kablonun yerleştirilmesi, önemli sıkışma riski nedeniyle rölatif kontrendikedir.

• Trombolitik bir ajan almış ve agresif bir şekilde antikoagülasyon veya antiplatelet ajanlarla tedavi edilen MI öyküsü olan hastalarda rölatif kontrendikedir. Kateterin bir kesi yoluyla yerleştirilmesi bile, böylece damarın doğrudan görüntülenmesine ve kanamanın daha iyi kontrol edilmesine olanak tanır, bu tür hastalarda önemli kanama ile ilişkili olabilir.

Hemodinamik olarak stabil, asemptomatik hastalar yanında; ayrıca transkutanöz pm için kontraendike durumlar şu şekildedir:

- Ventriküler fibrilasyon
- Ciddi hipotermi
- Pacemaker yerleşim yerinde deri bütünlüğünün bozulduğu durumlar

Transvenöz PM bileşenleri; nabız jeneratörü [güç kaynağı, pil, kontrol halkası, aktarıcı / alıcı, anahtar (mıknatıs ile aktive)], elektrodlar (tek veya çoklu/unipolar veya bipolar) şeklindedir.

Transvenöz yaklaşımla geçici kardiyak hızlandırma, çoğu hasta için geçici kardiyak hızlandırmaya yönelik tercih edilen yaklaşımdır. Transvenöz hızlandırma, damar sistemine etkili bir şekilde erişmek ve elektrodu kalbe iletirmek için hem venöz hem de kardiyak anatomi konusunda uzmanlık gerektirir.

Transvenöz kalp pili, geçici kardiyak kalp pili süresinin birkaç günden haftaya kadar olabileceği hastalarda hasta için daha konforlu (transkutanöz kalp pili ile karşılaştırıldığında) ve daha dayanıklı (hem transkutanöz hem de epikardiyal kalp pili ile karşılaştırıldığında) olma avantajlarına sahiptir. Özellikle geçici kalp pili için tasarlanmış bir kablo kullanılarak yapılan geleneksel transvenöz kalp pili uygulamasının sınırlamaları arasında sınırlı hasta hareketliliği (çoğu hasta yatağa veya sandalyeye bağlı kalacak ve yürüyemeyecektir) yer alır.

Bazı durumlarda daha uzun süreli geçici kalp pili gerekebilir. En yaygın senaryo, bakteriyemi veya endokardit bulunan bir hastada enfekte bir sistemin çıkarılması ve yeni bir kalp pili sistemi implantasyonundan önce sistemik enfeksiyonu temizlemek için uzun süreli antibiyotiklere ihtiyaç duyulmasıdır.

Geçici transvenöz kalp pili sisteminin implantasyonundan önce; normal anatomi ve endokardiyal yapılar hakkında bilgi sahibi olmak, normal elektrogramlar ile artefaktlar arasında ayırım yapabilme becerisi, vasküler erişim ve uygun elektrot konumlandırmasında yetkin olmak önemlidir.

Transvenöz yaklaşımda vasküler erişim; sol subklavyen ven, sağ internal juguler ven, femoral ven damarlarından sağlanabilir.

Geçici transvenöz kalp pili kabloları için tercih edilen erişim yerleri sol subklavyen ven ve sağ internal juguler vendir; bu öncelikle altta yatan venöz anatomi, kalp pili kablosunun eğriliği ve kablonun kalbe ilettilmesinin kolaylığı ile ilgilidir. Ek olarak, subklavyen yaklaşım hastaya daha fazla hareket özgürlüğü sağlar ve uzun süreli geçici kalp pili gerektiren bir hastada faydalı olabilir. Kardiyak perforasyon ve



instabilite riski nedeniyle brakial ven yaklaşımı önerilmez. Femoral ven yaklaşımı oldukça yaygın olsa da, özellikle perkütan koroner girişim sırasında kardiyak kateterizasyon laboratuvarında geçici kalp pili takılan hastalar arasında, derin ven trombozu, enfeksiyon ve sağ ventrikül perforasyonu riskleri nedeniyle bu yaklaşım uzun süreli geçici kalp pili için önerilmez. Femoral ven yoluyla geçici kalp pili sağlandığında, hastalar bacakları düz olacak şekilde sürekli sırtüstü yatmalıdır.

Ancak, nihayetinde, komplikasyonları en aza indirmek için en iyi yaklaşım, klinisyenin en fazla deneyime sahip olduğu yaklaşımdır. Kalıcı bir kalp pili gerekme olasılığı yüksekse, bu, geçici kalp pili için venöz erişim yeri seçildiğinde dikkate alınmalıdır. Örneğin, bir hasta sol el baskınsa ve kalıcı kalp pili sağ prepektoral bölgeye yerleştirilecekse, geçici elektrot için sağ subklavian ven dışında bir yer kullanılması tercih edilir.

Transvenöz lead yerleştirme için, santral venöz erişim sağlandıktan ve introdüser kılıf yerleştirildikten sonra, transvenöz lead yerleştirilir ve kalbe ilerletilir. İlerleyen lead'in ilerlemesi çeşitli yollarla izlenebilir:

- **Kablo işaretleri** – Geçici transvenöz kablolar olarak tasarlanan kablolarda, kablonun ucundan uzaklığı gösteren işaretler bulunur; bu işaretler, kablo ucunun damar sistemi veya kalp içindeki yerini tahmin etmek için izlenmelidir.
- **Sürekli elektrokardiyografik izleme** – Transvenöz kalp pili kablosunun takılması sırasında sürekli elektrokardiyografik izleme önerilir. Neredeyse tüm hastalarda, transvenöz kalp pili kablosunun ucu sağ ventrikül miyokardıyla karşılaştığında sık PVC'ler veya kısa süreli devamsız ventriküler taşikardiler görülür.
- **Floroskopi** – Taşınabilir bir başucu ünitesinden veya özel bir işlem odasından floroskopi, transvenöz kalp pili kablosunun doğrudan görüntülenmesini ve kablonun sağ ventrikül içinde optimum şekilde yerleştirilmesini sağladığı için mevcut olduğunda oldukça arzu edilir ve faydalıdır. Subklavian veya internal juguler venöz erişim yoluyla kablo yerleştirme için her zaman gerekli olmasa da, kateteri doğru pozisyona getirmek için femoral venöz erişim yoluyla yerleştirme için floroskopi gereklidir. Floroskopi mevcut değilse, sağ internal juguler veya sol subklavian venden önceden oluşturulmuş balon uçlu bir kateter yerleştirilebilir çünkü sağ ventriküle doğru "yüzme" eğiliminde olacaktır. Balon uçlu bir kateter genellikle yetersiz kan akışı nedeniyle kalp durması sırasında yerleştirilemez.
- **Ekokardiyografi** – Sürekli ekokardiyografik izleme, geçici kalp pili kablolarının yerleştirilmesinde de başarıyla kullanılmıştır.

Hasta kalp piline bağımlı olduğunda, elektrotun sabit bir pozisyona yerleştirilmesi hayati önem taşır ve mümkün olduğunca floroskopi kullanılmalıdır.

Çeşitli transvenöz uç tipleri mevcuttur. Transvenöz kalp pili uçları genellikle kalıcı kalp pili uçlarından daha serttir ve bu da manipülasyonu daha zor hale getirir, ancak uçlar daha kolay yerleştirilebilmesi için balon uçludur. Önceden oluşturulmuş atriyal "J" teli ve 2, 5, 6 ve 7 Fransız boyutları dahil olmak üzere çeşitli eğrilerle gelirler; genellikle bipolar veya quadripolardır. Belirtildiği gibi, uzun vadeli geçici kalp pili (yani haftalar) düşünülüyorsa bir diğer seçenek de kalıcı kalp pili uçlarını "dışsallaştırmak"tır. Bu uçlar daha sonra geçici kalp pili artık gerekmediğinde çıkarılabilir.



Endokardiyal vidalı geçici kablolar, stabiliteyi korumaya yardımcı olmak için kullanılabilir. Bu kablolar, kasıtlı olarak incir ve daha sonra çıkarılan bir kılıf aracılığıyla yerleştirilir. Bu kablolar, haftalarca mükemmel hız ve algılama eşiklerini koruyabilir.

Genel olarak, bradikardi tek başına kalp pili takılmasının endikasyonu olduğunda atriyal elektrotlar takılmaz. Ancak, semptomatik sinüs duraklamaları veya sinüs bradikardisi olan ancak sağlam AV nodal iletimi veya atriyal taşikardilerin kalp pili sonlanması, özellikle atriyal flutter olan nadir hastalar için ve nadiren hemodinamik amaçlar için AV senkronizasyonu sağlamak için atriyal elektrot takılır. Sinüs bradikardisi veya kavşak ritmi durumlarında atriyal elektrotların faydaları, iske mi, ventriküler hipertrofi veya kalp yetmezliği olan hastalar için kalp cerrahisinden sonra en belirgindir.

Transvenöz kalp pili kablosunu kalp pili jeneratörüne bağlayan konnektör kablosu sistemin basit bir parçasıdır, ancak bu konnektörlerin sıkıca vidalanması ve güvenli bir şekilde sabitlenmesi önemlidir. Uygun bir bağlantı veya yanlışlıkla bağlantının kesilmesi, kalp pili bağımlısı bir hastada kalp pili arızasına veya hatta asistole ve muhtemelen ölüme neden olabilir. Bir hasta başlangıçta kalp pili bağımlı olmasa bile daha sonra kalp pili takılırsa, kalp pili bağlantısının aniden kesilmesi veya kalp pilinin kapatılması, aşırı hız kalp pili kullanımı sonucu yeni edinilen kalp pili bağımlılığı nedeniyle asistole yol açabilir.

Tek ve çift odacıklı kalp pili kullanımına izin veren çeşitli tipte puls üreteçleri mevcuttur. Hastaların büyük çoğunluğu için tek odacıklı ventriküler geçici kalp pili kullanımı en uygundur. Semptomatik sinüs durması ve tamamen normal AV nodal iletimi olan hasta için atriyal geçici kalp pili kullanımı kullanılabilir.

Kalp pili programlamasında geçici kalp pili hızı, hastanın hemodinamiğini en iyi hale getiren hıza ayarlanmalıdır. Pediatrik bir hasta ve sıklıkla ameliyat sonrası hastalar için daha hızlı bir kalp hızı (örneğin dakikada 80 ila 100 atış) istenebilir. Diğer hastaların çoğu için dakikada 60 ila 70 atışlık bir hız muhtemelen yeterli olacaktır. Hasta kalp pili bağımlıysa, geçici kalp pili en az hassas değere çevrilebilir (yani, geçici kalp pili esasen asenkron modda çalışacaktır). Hastanın aralıklı bir içsel ventriküler ritmi varsa, duyarlılık içsel olayların normal şekilde algılanmasına izin verecek şekilde ayarlanmalıdır.

Uygun kalp pili algılama ve yakalamayı sağlamak için, kalp pili çıkışı, kalp pili eşığının en az iki ila üç katına ayarlanmalıdır. Özellikle ventriküldeki kalp pili eşığı, özellikle kalp pili bağımlısı olan hasta için ideal olarak 1 miliamperden az veya ona eşit olmalıdır.

Transvenöz elektrot yerleştirmenin tamamlanmasının hemen ardından, elektrotun pozisyonunu belirlemek için bir göğüs radyografisi çekilmelidir. Ek olarak, QRS kompleksinin elektrokardiyografik görünümünü belirlemek için, kalp pili uygulaması sırasında işlem sonrası hemen 12 elektrotlu bir elektrokardiyogram (EKG) kaydedilmelidir. Standart bir transvenöz ventriküler elektrot genellikle sağ ventrikül apeksinde veya yakınında konumlandırılrsa da, uzun süreli geçici kalp pili uygulaması için kalıcı bir endokardiyal elektrot kullanılıyorsa, elektrot esasen sağ ventrikülün herhangi bir yerine yerleştirilebilir. Elektrot sağ ventrikülde konumlandırıldığında, QRS genellikle sol dal bloğu morfolojisine ve üst eksene (yani, elektrot I ve aVL'de dik QRS kompleksi) sahip olmalıdır.

Transvenöz elektrot yerleştirilmesinden hemen sonra fiziksel muayene yapılmalı ve aşağıdaki durumlardan herhangi birinin olup olmadığını değerlendirmek için günlük değerlendirmeler yapılmalıdır:



- Kalp delinmesinin belirtisi olabilecek perikardiyal sürtünme sesinin var olup olmadığına bakılmalıdır.
- Boğuk kalp sesleri ve juguler venöz distansiyonla birlikte hipotansiyon varlığı kardiyak tamponadı düşündürmelidir.
- Pnömotoraksı düşündüren asimetrik ya da azalmış solunum sesleri olup olmadığına bakılmalıdır.

Hastanın geçici kalp pili olduğu süre boyunca sürekli EKG takibi zorunludur ve ilaç tedavisine ihtiyaç duyulması halinde ayrı bir intravenöz erişim önerilir. Günlük göğüs röntgenleri zorunlu değildir, ancak yakalama veya algılama başarısızlığına dair kanıt varsa veya ventriküler taşikardi meydana gelirse göğüs röntgeni tekrarlanmalıdır; bunların hepsi olası elektrot yerinden oynamasını gösterir. Günlük 12 derivasyonlu EKG de gerekli değildir.

Geçici kalp pili takan hastaların, uygun yakalamanın olduğundan emin olmak için günlük olarak kalp pili eşiklerinin kontrol edilmesi gerekir. Geçici kalp pili takılmasına devam etme ihtiyacı günlük olarak yeniden değerlendirilmeli, hasta stabil içsel elektriksel aktiviteyi geri kazanmışsa cihaz çıkarılmalı veya endike ise kalıcı kalp pili takılması düşünülmelidir. PVC veya normal olarak iletilen içsel QRS kompleksini algılamada başarısızlık atakları varsa, geçici kalp pili takılmasının algılanması yeniden değerlendirilmelidir.

Çoğu kurumda enfeksiyona dirençli olduğu düşünülen özel bir pansuman uygulanabilir. Mevcut olan oklüzif ve şeffaf pansumanların bazıları yedi güne kadar yerinde bırakılabilir. Venöz giriş yerinde ateş ve/veya lokal eritem veya drenaj bir enfeksiyon olduğunu gösterir ve uygun değerlendirmeyi ve gerekirse geçici kalp pili sisteminin çıkarılmasını gerektirir. Tüm bağlantılar ve kalp pili programlanmış ayarları rutin olarak kontrol edilmelidir.

Hastaya kalıcı endokardiyal elektrot yerleştirilip harici kalıcı kalp piline bağlanmışsa ve daha uzun süreli geçici kalp pili takılması gerektiği varsayılırsa, hastaya geçici kalp pilinin ipsilateral tarafında kol/omuz kısıtlaması dışında herhangi bir kısıtlama olmaksızın hareket özgürlüğü sağlanabilir.

Acil geçici kardiyak kalp pili takılması gereken çoğu durumda, transkutanöz kalp pili takılması en hızlı şekilde başlatılabilen tekniktir. Hızlı başlangıç sunduğu ve kullanımı kolay olduğu için acil serviste sık kullanılır. Zaman varsa hastaya yapılacak işlemi açıklamak önemlidir. Yapışkan pedler doğrudan hastanın göğsüne, genellikle ön ve sol lateral pozisyonlara veya ön ve arka pozisyonlara yerleştirilir. 2 saatten sonra pedlerin yeri değiştirilmelidir. Yeni nesil cihazlarda aynı ped pacemaker, defibrilasyon ve kardiyoversiyon için kullanılır. Eğer pedlerin defibrilasyon özelliği yoksa ve defibrilasyon gerekli ise pedlerin 2-3 cm uzağından şok verilmeli. Pedler, sadece birkaç saniyeliğine kalp ritminizin bir okumasını alır. Çok miktarda vücut kılı capture yani yakalama şansını etkiler. Bu yüzden çok miktarda vücut kılı olan bazı hastalarda, uygun yapışkan teması sağlamak için bölgenin tıraş edilmesi gerekecektir. Sağlık personeli için ise, çok az elektriksel hasar riski vardır.

Hasta konforu düşüktür. Transkutanöz kalp pili uygulamasının, yüksek yakalama eşikleri ve hasta rahatsızlığı olmak üzere iki önemli klinik sorun nedeniyle kullanımı sınırlıdır:

- **Yakalama ve kalbi başarılı bir şekilde hızlandırma becerisinin elde edilememesi** – Araya giren göğüs duvarı yapılarının (yani, deri, kas, kemik ve bağ dokuları) empedansı ve kalbin göğüs kafesi içindeki tam



yerini bilmenin zorluğu nedeniyle, tüm hastalarda başarılı yakalama ve hızlandırma elde edilemez. Ek olarak, yakalama, hastanın hareket etmesi veya pedlerin göğüs duvarına yetersiz yapışması nedeniyle kesintiye uğrayabilir (örneğin, terleyen bir hastada). Başka bir tuzak, yakalamanın değerlendirilmesinde zorluktur, çünkü büyük uyaran artefaktı, aslında durum böyle olmadığında yakalama görünümü verildiğinde monitörü yanıltıcı hale getirebilir.

● **Hasta rahatsızlığı** – Miyokardı başarılı bir şekilde uyarmak için araya giren göğüs duvarı yapılarıyla ilişkili daha yüksek empedansı aşmak için, transkutanöz pacing kullanırken nispeten daha yüksek enerji seviyeleri gerekir. Bu, hastanın tolere edemeyeceği miyokardiyal olmayan kas uyarımı ve rahatsızlığa neden olabilir.

Transkutanöz kalp pili uygulamasının sınırlılıkları nedeniyle, bu yöntem yalnızca bilinci kapalı hastalar veya sedasyon uygulanabilen hastalar için geçici transvenöz kalp pili uygulanana veya kalıcı kalp pili takılana kadar bir zaman kazandırma yöntemi olarak düşünülmelidir.

Bradikardilerde PM'ı açarken demand modunda BAŞLANIR. Hemodinamik olarak riskli ama arrest gelişmemiş bir hastada pace vurusu en az düzeyden başlanarak artırılmalıdır. Genellikle yetişkinlerde 60-70 vuru/dk yeterlidir. Pace vurusu yakalandığı başlangıç gücünün 1.25 katı olacak şekilde güç ayarlanmalıdır. 5-10 mA akım ile uyarı vermeye başlanmalıdır.

Capture eşiğine kadar akım yavaş yavaş yükseltilmelidir. Spike'ları QRS izlemiyorsa akım düzeyini artır ve capture yakalanınca 5 mA daha artırılarak son hali verilir.

Cihazlarda senkron(demand)veya asenkron(fixed) modlar vardır. Asenkron modda kardiyak aktiviteye bakılmaksızın düzenli uyarı yapar. Senkron modda ise intrinsik elektriksel aktivite önceden ayarlanmış bir aralık içinde hissedilmediğinde uyarı yapar. Daha güvenlidir. Asenkronda pace vurusu ventrikül repolarizasyon dönemine denk gelirse ciddi aritm oluşturma ihtimali yüksek.

Bilinci açık hastada sedasyon ve ağrı kesici uygulanıp hasta konforu artırılabilir. Kalp pili takıldıktan sonra femoral ve diğer periferik nabızlarını kontrol edilmelidir. EKG çekip ST segment ve T dalga varlığını aranmalıdır. Yatak başı USG ile kalp pili vurusunun kalp tarafından yakalandığı kontrol edilebilir. Hemodinamik parametreler kontrol edilmelidir.

Geçici kalp pili takılmasının ciddi komplikasyonları nadirdir ancak tanınması önemlidir ve şunları içerir:

- Asistoliye yol açabilecek şekilde, lead'in yerinden çıkması ve bağlantısının kesilmesi
- Kanama
- Kalp tamponadına yol açabilen miyokard perforasyonu
- Akciğer embolisi
- Kateter düğümlenmesi
- Hava embolisi
- Ventriküler taşikardi ve ventriküler fibrilasyon dahil olmak üzere çeşitli aritmiler



- Pnömotoraks
- Ekstrakardiyak stimölasyon
- Enfeksiyon



Validity of serum microRNA-93 and microRNA-191 levels to reduce unnecessary computed tomography in adult patients with minor head trauma

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Background

Head trauma is one of the most important causes of mortality and morbidity in developing and developed countries, especially in the young population. Only 40-50% of surviving head trauma patients recover without sequelae. Head trauma constitute of approximately 20% of patients admitted to the emergency department of hospitals (1,2). Although severe head trauma results in disability and death in young individuals, there is more frequent admission to hospitals due to minor head trauma (3).

Indication for the appropriate use of cranial computed tomography (CCT) in patients with minor head trauma (MHT) based on history and physical examination alone remains unclear (4). Recent studies have been reported that 90% of patients with MHT who undergo CCT under the present clinical decision rules have no clinically important brain injuries (5). Actually, many cases with MHT go unnoticed or misdiagnosed, as the current diagnostic tests are neither sensitive nor specific enough to identify traumatic brain injury (TBI) (6,7). Serum concentrations of the various specific microRNAs were recently found to provide useful information in the diagnosis, severity, and prognosis of TBI (8). To date, there have been only a limited number of studies investigated serum microRNAs in MHT patients with TBI.

The purposes of this study were (a) to determine the expression levels of microRNA-93 and microRNA-19 in the sera of adult patients with MHT; (b) to correlate TBI with the initial microRNA-93 and microRNA-191 levels; and (c) to investigate whether the initial serum levels



of these miRNAs can predict the presence or absence of intracranial injury for reducing the use of unnecessary CCTs.

Materials and Methods

This study was conducted in accordance with the 1989 Declaration of Helsinki and was approved by the Ethics Committee of Istanbul Haseki Research and Training Hospital (Trial Registration No: 515). The present study was funded by the Health Sciences University Board of Scientific Research Projects (Funding number: 2018/006).

Fifty-nine consecutive adult patients with isolated MHT (Glasgow Coma Scale [GCS], GCS scores of >13) undergoing CCT based on the clinical decision rule of the New Orleans Criteria and 91 age- and sex-matched healthy controls were enrolled in this prospective study. Patients were divided into 2 groups as follows: those without (group 1) and with (group 2) traumatic intracranial or extracranial lesions (e.g., skull fracture, brain swelling, cerebral contusion, intracerebral hematoma) shown on CCT. Patients were also divided into two subgroups based on the presence or absence of traumatic parenchymal lesions defined as TBI. The serum levels of microRNA-93 and microRNA-191 were assessed in MHT patients and healthy controls using quantitative real-time reverse transcription-PCR. The primary outcome variable was to determine the indication of the need for an initial CCT in patients with MHT and the presence of intracranial lesions in conjunction with serum miRNAs levels.

Results

The mean serum microRNA-93 and microRNA-191 levels were significantly increased in the MHT patients compared with the controls (both comparisons; $P<0.001$). The mean serum microRNA-93 and microRNA-191 levels between the study groups (groups 1 and 2) were statistically significant ($P=0.017$ and $P=0.001$, respectively; Table 1). Of the 79 patients studied, 16 exhibited trauma-relevant intracerebral or extracerebral lesions on the CCT scan (CCT+). With a cut-off limit of 0.15, microRNA-191 had an area under the curve (AUC) value of 0.765 (0.640-0.889), a sensitivity of 68.1%, and a specificity of 68.8% in CCT+ patients (Figure 1).



Compared to MHT patients without TBI, the mean serum microRNA-191 levels were markedly elevated in patients with TBI (0.72 ± 1.64 and -0.56 ± 1.63 , respectively; $P=0.017$). However, microRNA-93 levels did not show significant changes in either group of patients ($P=0.145$; Table 2). With a cut-off limit of 0.069 microRNA-191, TBI+ patients were identified with a sensitivity level of 66.7% and a specificity level of 58.3% (AUC: 0.712, [0.563-0.862]; Figure 2).

Table 1. Comparison of serum miRNA-93 and miRNA-191 levels according to CCT findings in patients with MHT.

CCT findings							
	Normal			Abnormal			
	Mean±SD	Min-Maks	Median	Mean±SD	Min-Maks	Median	P*
miRNA-93	1.02±1.92	-2.97-4.53	1.16	-0.30±1.88	-4.67-2.36	0.00	0.017
miRNA-191	0.89±1.57	-2.63-3.46	1.08	-0.71±1.55	-3.31-1.51	-0.83	0.001

*Student's t test.

Figure 1. Receiver operating characteristic (ROC) curve of miRNA-191 expression in the serum of the MHT patients with CCT+ and those with CCT-

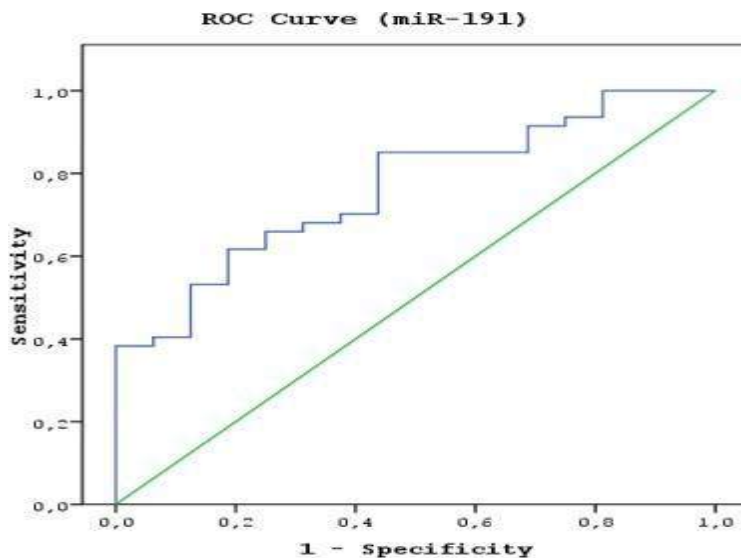
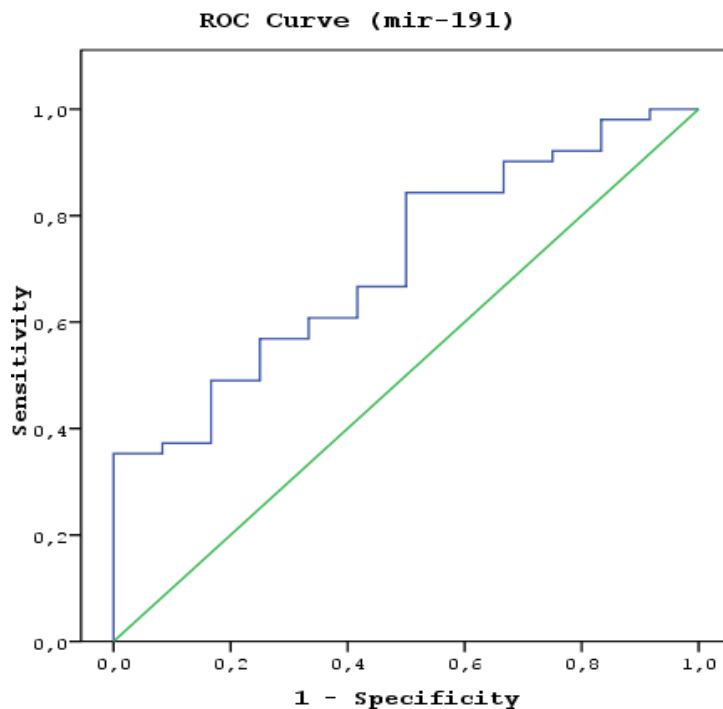


Table 2. Comparison of serum miRNA-93 and miRNA-191 levels in MHT patients with TBI and those without TBI.

	Traumatic brain injury						
	Yes			No			P*
	Mean±SD	Min-Maks	Median	Mean±SD	Min-Maks	Median	
miRNA-93	-0.02±1.27	-1.66-2.36	0.00	0.88±2.05	-4.67-4.53	1.16	0.145
miRNA-191	-0.56±1.63	-3.31-1.51	-0.42	0.72±1.64	-3.12-3.46	1.01	0.017

*Student's t test.

Figure 2. Receiver operating characteristic (ROC) curve of miRNA-191 expression in the serum of the MHT patients with TBI and those without TBI.



Discussion & Conclusions

This study is the first clinical trial to determine whether serum levels of microRNA-93 and microRNA-191 in patients with minor head trauma can predict the presence or absence of intracranial injury for reducing the use of unnecessary CCTs. Minor head trauma accounts for more than 80% of patients admitted to emergency departments due to head trauma. Only a very small group of these patients have intracranial pathology. Because of the large number of patients, performing CCT to all of these patients poses a serious burden on health expenses of countries (9,10). MicroRNAs are important posttranscriptional regulators of complementary mRNA targets and have been implicated in the pathophysiology of acute brain injury (11,12). The human and experimental studies have identified various specific microRNAs as biomarkers in serum/plasma (e.g., miR-425-p, -21, -93, -191 and -499) for possible indicators of the diagnosis, severity, and prognosis of TBI (8,13,14).



In the present study, we found that circulating microRNAs levels increased after MHT and distinguished between those with and those without intracranial or extracranial lesions demonstrable on CCT. The results of this study demonstrate that miRNA-191 expression at a serum level of >0.15 has a high negative predictive value for CCT+ in patients after MHT. MicroRNAs, especially microRNA-191 concentrations in patients with MHT can provide additional information to improve indication of the need for an initial CCT scan. This study is the first step towards validation of thresholds for studies integrating microRNAs into a clinical decision rule for MHT to detect intracranial or extracranial lesions.

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Hastane Dışında Hastaya Müdahale Sorumluluklarımız Nelerdir?

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Ankara Bilkent Şehir Hastanesi Acil Tıp Kliniği

Giriş

Hastane dışında gerçekleştirilen acil müdahalelerde hekimlerin yasal ve etik sorumlulukları, hasta güvenliğini sağlamada kritik bir rol oynar. Acil tıbbi müdahalelerde hekimin sorumlulukları, koşulları ve sınırları Türk Tabipler Birliği (TTB) Meslek Etiği Kuralları, Tıbbi Deontoloji Nizamnamesi, Türk Ceza Kanunu ve Sağlık Hizmetleri Temel Kanunu ile belirlenmiş olup, hukuki ve etik yükümlülükler çerçevesinde değerlendirilmelidir. Bu çalışmada, hastane dışı acil durumlarda hekimlerin sorumluluklarına ilişkin yasal dayanaklar ve uygulamadaki hukuki sorumluluklar ele alınmaktadır.

Tıbbi Müdahale

Resmi ehliyetli (icraya yetkili) kişiler tarafından, kişinin sağlığını, yaşamını, vücut bütünlüğünü tehdit eden, fiziksel veya ruhsal bazı bozuklukların tanısı, tedavisi ve önlenmesine ya da nüfus planlaması amaçlarına yönelik ve tıp biliminin genel kabul edilmiş kurallarına uygun olarak gerçekleştirilen girişim olarak tanımlanabilir.

Yasal Dayanaklar

Hekimlik mesleği, insan sağlığını koruma ve iyileştirme görevi üzerine inşa edilmiştir. Tıbbi müdahalenin hukuka uygunluğu ise, sağlık hizmetinin doğru zamanda ve uygun şekilde sunulmasını gerektiren belirli etik ve yasal çerçeveler tarafından şekillendirilir. Hekimlik Meslek Etiği Kuralları'nın 5. maddesi, hekimin öncelikli görevinin insan hayatını korumak olduğunu vurgular. Madde 10'da hekimin, görevi ve uzmanlığı ne olursa olsun, gerekli tıbbi girişimlerin yapılamadığı acil durumlarda, ilk yardımda bulunması gerektiği vurgulanmıştır. Bu yükümlülük, hastalıkların önlenmesi, doğru tanı ve tedavi uygulamalarının yanı sıra, mesleki gelişmeleri yakından takip etmeyi de kapsar.

Tıbbi Deontoloji Nizamnamesi'nin 3. maddesi ise, hekimin acil durumlarda zorunlu olmadıkça ilk yardım sağlaması gerektiğini belirtir. Bu hüküm, sağlık personelinin bulunmadığı acil vakalarda sorumluluk üstlenmeyi zorunlu kılmaktadır. Aynı şekilde, Türk Ceza Kanunu (TCK)'nın 83. ve 98. maddeleri, hekimin acil yardım yükümlülüğüne aykırı davranışlarının ciddi cezai sonuçlara yol açabileceğini ifade etmektedir.

Acil Tıbbi Müdahalede Hukuki Sorumluluklar

Acil müdahalelerde sağlık çalışanları için temel kural, müdahalenin hukuka uygunluğudur. Hekimin yasal sorumlulukları şu başlıklar altında incelenebilir:

- **Hukuki Sorumluluk:** Bir tıbbi müdahalenin kusurlu olarak gerçekleştirilmesi sonucunda oluşan zarar ve bu zararla eylem arasında nedensellik bağı kurulursa, hekimin hukuki sorumluluğu doğar.
- **İdari Sorumluluk:** Disiplin kuralları kapsamında, hekimin mesleki uygulamaları denetlenir ve ihlallerde idari yaptırımlar uygulanabilir.
- **Mesleki ve Etik Sorumluluklar:** Hekimlik uygulamalarında etik kurallara uygun hareket edilmesi zorunludur.
- **Cezai Sorumluluk:** Tıbbi uygulamalarda kasıt, taksir ya da ihmal gibi unsurların varlığı halinde ceza hukuku devreye girer.





Acil tıbbi müdahalelerde en sık karşılaşılan istisna durumları zorunluluk hali ve aydınlatılmış onam alınamaması gibi durumlardır. Endikasyon gerekliliği için bir istisna bulunmamakta, şarttır. Hasta Hakları Yönetmeliği'nin 24/3. maddesi, hayati tehlikenin bulunduğu durumlarda hastanın rızasının aranmayacağını belirtir. Bu durumda hekimin sorumluluğu, müdahaleyi hukuka uygun şekilde gerçekleştirmek ve mümkün olan en kısa sürede hastanın yakınlarını bilgilendirmektir.

Varsayılan Rıza ve Uygulama

Varsayılan rıza, bilinci kapalı bir hastaya yapılacak acil müdahalelerde devreye girer. Bu durumun geçerli olabilmesi için, müdahalenin yapılmaması halinde hastanın hayatı tehlikeye girecek veya geri dönüşü olmayan zararlarla karşılaşma ihtimali bulunmalıdır. Uygulama örneklerine bakıldığında doktrin görüşü, bilinci kapalı bir hastanın hayata döndürülmesi için yapılan cerrahi girişimlerin hukuka uygunluğunu gösterir.

Örnek Vaka: Uçakta Doktor Var mı?

Uçak gibi kapalı ve sınırlı alanlarda ortaya çıkan acil tıbbi durumlarda hekimlerin sorumlulukları, ulusal ve uluslararası hukuk sistemlerine göre değişiklik göstermektedir. Uçuş sırasında en sık görülen ilk 5 acil tıbbi durum; senkop, solunum sistemi ile ilgili sorunlar, bulantı-kusma, kardiyak semptomlar ve konvülsiyon olarak belirtilmektedir. Türkiye'de, Tıbbi Deontoloji Tüzüğü ve Türk Ceza Kanunu'na göre hekimler, acil tıbbi müdahale uygulama yükümlülüğüne sahiptirler. Ancak, uçakta karşılaşılan durumlarda, hekimlerin sigorta kapsamı ve malpraktis riski de göz önünde bulundurulmalıdır. ABD'de uygulanan Havacılık Tıbbi Yardım Yasası (The Good Samaritan Law), acil durumlarda yardım eden hekimlerin hukuki koruma altında olmasını sağlamaktadır.

Sonuç

Hastane dışında gerçekleştirilen acil müdahalelerde hekimlerin yasal ve etik sorumlulukları, insan hayatını koruma görevlerinin bir gereğidir. Tıbbi müdahale süreçlerinde hukuki sorumlulukların bilincinde olmak hem hasta güvenliğini sağlamak hem de hekimleri olası hukuki yaptırımlardan korumak adına büyük önem taşımaktadır. Bu sorumluluk, sadece hastane ortamıyla sınırlı olmayıp, hekimin bulunduğu her ortamda geçerlidir.

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Uzm. Dr. Meral YILDIRIM DENİZ

RSI de hangi ajan daha önce verilmeli? Sedatifler mi? Nöromusküler Blokörler mi?

Sedatifler

RSI acil servis entübasyonlarının %85'inde, yoğun bakım entübasyonlarının ise %75'inde kullanılmaktadır. RSI sedatif ve nöromusküler blokör (NMB) ajanları ardışık uygulayarak gerçekleştirilir. Ajanların optimal sırası tartışma konusudur. RSI geleneksel olarak bir sedatif ve nöromusküler blokaj ajanının sırayla uygulanmasını içerir. Güvenli apne zamanı hastanın yaşı, BMI'sı, komorbiditeleri veya preoksijenizasyon metodu gibi değişkenlere bağlı sn'ler-dk'lar arasında değişebilir. Sedatifler entübasyon koşullarını iyileştirmek, amnezi sağlamak ve entübasyon sırasında sempatik yanıtı engellemek için indüksiyon ajanları olarak uygulanır. Klinisyenin RSI'de önce sedatifleri kullanmayı tercih etmesinin sebebi hastanın paralize olduğunda; bilinçli olmasını ve bu deneyimi hatırlamasını engellemektir. Ayrıca anksiyete, hipertansiyon, taşikardi ve RSI sırasında kullanılan sonraki ilaçlara bağlı intrakraniyal basınçta (ICP) artışlar gibi olumsuz fizyolojik tepkileri azaltmaktır. Etki başlangıcı, süresi gibi ilaç özellikleri, hemodinamik durum, hastaya özgü faktörler indüksiyon ajanının seçimini yönlendirir. İndüksiyon ajanları etomidat (ülkümüzde yok), ketamin, propofol ve midazolamdır. Literatürde az çalışma vardır. İlk girişim entübasyon başarısında bujinin trakeal tüp + stile göre üstünlüğünü gösteren randomize çalışmanın planlı ikincil analizi olan bir çalışmada; RSI ilaç sıralamasının ilk ilacın uygulanmasından, başarılı ilk entübasyon girişiminin sonuna kadar geçen zamanla ilişkili olup olmadığını araştırmıştır. Çalışmanın kısıtlılıkları çok, ilaç seçimi sınırlı, hasta grupları homojen değildir. Önce NMB ajan kullanılan grupta apne zamanı 6 sn düşük izlenmiştir. Bu bulgunun klinik önemi bilinmemektedir. İlk önce sedatif sonra NMB (%27), ilk önce NMB sonra sedatif kullanılan (%73) hasta grupları dengesizdir. Sedatif ajan (ketamin ve etomidat) kullanılmış ve NMB (süksinilkolin veya roküronyum) almış olan hastalar dahil edilmiş. Literatüre baktığımızda bu konuda klinik uygulamayı değiştirecek yeterli çalışma olmadığı görülmüştür. Sonuçta sedatif ve NMB ajanların her ikisinin de önce uygulanması kabul edilebilir. Acil servislerimizde geleneksel uyguladığımız yöntemle önce sedasyon sonra paralizi uygulamasında değişiklik sunacak bulgu yoktur. Hekimlerin RSI'yi kendilerini en rahat hissettikleri şekilde uygulamaya devam etmeleri önerilir.



ACİL TIP UZMANLIĞI VE KADIN OLMAK

Doç. Dr. Rezan KARAALİ

Özet

Acil tıp, ABD'de 2019 yılında 4000'den fazla başvuru ile hızla büyüyen ve rekabetçi bir uzmanlık alanıdır. Ancak, acil tıp asistanları ve uzmanları ağırlıklı olarak erkeklerden oluşmaktadır. Kadın acil tıp asistan/uzman yüzdesi 2007'de %22'den 2018'de %30'a yükselmiş olsa da, kadınlar halen bu alanı daha az tercih etmektedir. Nedenler arasında kadınların klinik uygulama ve hasta bakım hizmetinde yoğunlaşması, akademik olarak ilerleyemeyecekleri düşüncesi, aile talepleri ve akıl hocası eksikliği yer almaktadır. Çevresel engellerin yanı sıra, kadınların yeteneklerini düşük değerlendirmesi de etkili olabilir.

2008'de, ACEP/SAEM tarafından kadınların fırsatlarını iyileştirmek için çeşitli öneriler sunulmuş ve işverenlerin tarafsız işe alım, eşitlik politikaları uygulamaları vurgulanmıştır. Aile destekleyici politikalar önerilmiştir. Kanada'da yapılan bir çalışmada, kadınların belirli rollere sıkıştırılmış hissettiği, liderlik rolleri için daha fazla çaba harcadıkları ve iş-yaşam dengesi taleplerinin önemli olduğu belirtilmiştir. Kadınlara özel sponsorluk ve akıl hocalığı programlarının geliştirilmesi önerilmiştir.

Türkiye'de ise kadın acil tıp uzmanları daha farklı zorluklarla karşılaşmaktadır. Acil servislerde önlenemeyen şiddet, düzensiz çalışma saatleri, hastaların erkek doktorlara daha fazla güveniyor olması, acil servislerde devamlı bir kaos ortamının süregelmesi, süt/doğum izni kullanımı ve hastanelerin fiziksel koşulları gibi sorunlar bulunmaktadır. Ayrıca girişimsel işlemlerin güç gerektiriyor algısı da önemlidir. Bu sorunlardan sadece gebelik ve süt izinleri 657 sayılı kanunda tüm devlet memurları için düzenlenmiş olup kadın acil tıp uzmanları için ek düzenlemelere ihtiyaç vardır. Kadın acil tıp uzmanlarının doğurganlık dışında da sorunları vardır ve bu alanda yeni düzenlemeler gereklidir. Gerekli düzenleme ve destekler ile acil tıp kadın doktorlar için de tercih edilebilir branş olacaktır. Vardiya usulü çalışılıyor olması ve çalışma saatlerinin düzenlenebilirliği ile aslında Acil tıp, kadın doktorlar için aile ve profesyonel yaşamı dengeleme açısından çekici olabilir.

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SS - 069

SON LOKMA: DİŞ PROTEZİ

Uzm. Dr. Ahmet Emre AY1

İEtimesgut Şehit Sait Ertürk Devlet Hastanesi

80 yaşında erkek hasta sabah kahvaltı yaparken başlayan şiddetli öksürük ve nefes darlığı şikayetleri ile acil servisimize başvurdu. Bilinen DM, HT, Alzheimer tanıları mevcut.

Kan basıncı 150/100 mmHg, nabız 95, SpO2 %73, vücut sıcaklığı 36.8C, kan şekeri 230 mg/dl, elektrokardiyografisinde akut patolojiye rastlanmadı.

GKS:15 genel durumu orta-kötü olan hasta aspirasyon ön tanısı ile kırmızı alan alındı. Yapılan fizik muayenesinde boğazda yabancı cisim görülemedi. Takipneik hastada dispne ve stridor saptandı. 5lt/dk nazal kanül ile oksijen tedavisi başlandı. Saturasyonları %89 olan ve nispeten rahatlayan hastanın kanları alındı, monitörize şekilde görüntüleme ünitesine götürüldü.

Çekilen kontrassız toraks tomografisinde akut patolojiye rastlanmadı. Kontrassız boyun tomografisinde her iki boyun bölgesinde cilt altı kas planları arasında yaygın serbest hava dansiteleri ve larenks seviyesinde metalik artefakt veren yabancı cisim görüldü. Çekilen kontrassız kranial tomografisinde akut patolojiye rastlanmadı.



Resim-1: Yan Boyun Grafisi

Resim-1: Yan Boyun Grafisi

Kan tetkiklerinden beyaz küresi, hemoglobini ve plateleti doğal, pH 7.42, pCO2 40, HCO3 25, CRP 25, troponin negatif (-), kr 1.2, üre 67, GFH 52 olan hasta kulak burun boğaz hastalıkları hekimine konsülte edildi.

Konsültan hekim tarafından laringoskop ile dil kökü kaldırılarak eğri klemp yardımı ile diş protezi çıkartıldı. İşlem sonrasında yumuşak damakta birkaç adet mukozal kesi ve kanama izlendi. Hastaya prednol, dekort ve ppi tedavisi uygulandı.

Takip açısından kulak burun boğaz ve göğüs cerrahisi nöbetçisi olan üst merkez yoğun bakım ünitesine sevk edildi.



Violence Against Female Healthcare Workers in Emergency Departments

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According to the World Health Organization (WHO), violence is defined as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or a group that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation.” Workplace violence is further defined by the European Commission as incidents in which an employee is threatened, intimidated, abused, or assaulted, either overtly or covertly, in ways that affect their health, well-being, or safety.

Studies have demonstrated that healthcare workers are 16 times more likely to encounter violence than workers in other sectors. Incidents of violence in healthcare settings are significantly higher than in other workplaces, yet a very limited number of these incidents are reported. Typically, only severe cases, such as physical injuries, are perceived and reported as violence, while less serious incidents often go unreported. Healthcare workers may perceive workplace attacks as an inherent part of their profession, only regarding serious injuries as instances of violence.

Violence targeting female healthcare workers, particularly in emergency departments, has emerged as a serious issue worldwide. Research indicates that female healthcare workers are more frequently subjected to violence from both patients and colleagues.

The violence experienced by female healthcare workers in emergency departments is thought to be connected to gender-related power imbalances. Women often occupy lower organizational and professional positions, making them more vulnerable to physical, verbal, and sexual harassment.

A study examining violence in a German university hospital between 2014 and 2023 recorded a total of 859 incidents, with nurses being the most frequently targeted group. Verbal assault was the most common type of violence (46%), followed by physical assault (24%).

Another study investigated gender-based violence between nurses and physicians, examining both patient-initiated and coworker-initiated incidents. In 65% of cases, the perpetrators were male, with both men targeting women and women targeting other women within the workplace.

Gender-based violence becomes especially prevalent when women are in more vulnerable situations, such as working alone or during night shifts. Although female healthcare workers frequently encounter violence, economic and professional concerns, along with the perception that reporting violence is a lengthy and burdensome process, reduce the likelihood of reporting.

Underlying factors contributing to the violence against female healthcare workers include inadequate visibility and reporting of incidents, insufficient value attributed to female employees, limited access to decision-making processes for women, and inadequate gender equality policies.

To address these power imbalances, it is necessary to implement measures that promote gender-balanced leadership



roles and empower female healthcare workers through collective actions. Furthermore, it is crucial that workplace policies on gender equality and empowerment receive robust support from leaders. In this context, educational programs, effective security measures, and simple-to-use reporting mechanisms are essential in preventing violence against female healthcare workers. Additionally, policies supporting gender equality can ensure a safer work environment for female employees.

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PNEUMOMEDIASTINUM AFTER BLUNT TRAUMA

Background and aim

Pneumomediastinum (PM) is the condition of free air images in the mediastinal region, either spontaneously or due to an underlying cause such as trauma or surgical procedure. Although the most common source of free air is alveolar rupture, it can also originate from the tracheobronchial system, esophagus and pharynx. It should be kept in mind in the differential diagnosis, especially in young patients and trauma patients who present to the emergency department with sudden onset of chest pain or shortness of breath. Chest radiography is one of the radiological imaging methods used in diagnosis. Thorax computerized tomography (CT) is used as the gold standard diagnostic method in cases that cannot be detected by radiography or to evaluate the etiology of PM. When PM is detected, the patient must be hospitalized for observation and follow-up. Pneumomediastinum cases that do not have a serious underlying pathological condition usually regress spontaneously with medical treatment methods (oxygen, analgesic drugs and rest). In long-term cases, further examination and invasive procedures may be required. This case aims to draw attention to the differential diagnosis and treatment of Pneumomediastinum, which is rarely seen in the emergency department.

Case Report

A 20-year-old female patient presented to the emergency department (ED) with the complaint of falling down the stairs after near syncope. The patient's vital signs at the admission were: TA 115/80 mmHg, Pulse: 112 beats/min, sPO₂: 98. During the examination, GCS 15 was observed in an oriented and cooperative manner. No obvious lesion was seen on primary examination. Tenderness was detected in the right and left shoulders and tenderness in the thoracolumbar vertebra. The patient's ECG showed sinus tachycardia. Normal sinus rhythm was observed in the follow-up control ECG. No acute pathology was detected in the patient's laboratory tests. Acute neurological events and acute cardiovascular pathologies were excluded in the laboratory tests, radiography and tomography taken for the etiology of syncope and trauma pathologies. Pneumomediastinum was detected in the patient's thorax CT (Image 1). Under close monitoring, respiratory rate was 11 per minute and the sPO₂ was 98 in room air. Since we do not have a Thoracic Surgery clinic in our hospital, the patient was consulted with the General Surgery clinic. The General Surgery clinic interned the patient for close follow-up. During the patient's ward follow-up, it was observed that the pneumomediastinum area had spontaneously regressed and there was no need for further intervention, and the patient was discharged.

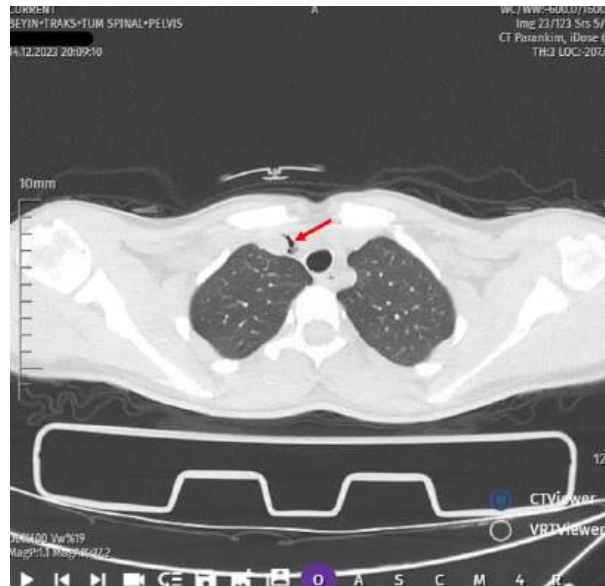




Image 1 : CT image of the patient.

Discussion and Conclusions

Pneumomediastinum (PM) is the presence of free air in the mediastinal area. Another definition is mediastinal emphysema (1,2). Although it is a rare disease and is often seen at young ages, a study reported its incidence as 1/25,000 between the ages of 5-35 (3). It has been reported more frequently in the male population(4,5).

Pneumomediastinum is a condition that we encounter more frequently in major thoracic traumas, but is also rarely observed in isolated traumas or low-energy traumas, it can also occur spontaneously. It usually has a good prognosis, but mediastinitis is one of the fatal complications of PM (6). Although it is not a disease with a high mortality rate, PM is an important disease that should be kept in mind in differential diagnoses in the ED.

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Effectiveness and Safety of Intradermal Sterile Water Injection for Pain Management in Renal Colic

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Introduction

Renal colic is a common cause of emergency department (ED) admissions (1). The intradermal sterile water injection (ISWI) method represents a novel approach to pain management in patients presenting with renal colic. In a study of 150 patients, Moussa et al. highlighted that ISWI was as efficacious as intramuscular (IM) diclofenac in managing acute renal colic pain (2). Similarly, Az et al. demonstrated that ISWI is at least as effective as diclofenac, paracetamol, and opioids, achieving pain relief more rapidly than all three treatment groups (3). The European Association of Urology (EAU) Urolithiasis Guidelines suggest the safe administration of ISWI in pregnant patients where nonsteroidal anti-inflammatory drugs (NSAIDs) are contraindicated (4). However, the precise onset time and duration of ISWI's analgesic effects remain undefined, and the clinical characteristics of patients in whom ISWI fails have yet to be systematically explored.

We investigated the onset time and duration of the analgesic effect of ISWI in the management of pain among adult patients presenting to the ED with renal colic. Also, we evaluated the clinical characteristics of cases in which ISWI did not achieve sufficient pain relief.

Methods

This retrospective and single-center study included 46 consecutive patients admitted to the ED due to renal colic who received ISWI between March 2024 and August 2024. We assessed pain using a 10 point visual analog scale (VAS; 0 = no pain; 10 = worst possible pain) before treatment and 15, 30, and 60 min after treatment. Additionally, patient demographics (age and sex), onset time and duration of the analgesic effect of ISWI, radiological findings, stone size, stone localization, and adverse events were evaluated. We compared the demographic and clinical characteristics of patients for whom ISWI treatment was successful with those for whom it was not.

Results

A total of 46 adults, comprising 34 (73.9%) males and 12 (26.1%) females, were included in this study, with a mean age of 39.41 ± 11.52 years. The initial VAS score for the pain of patients was 8.72 ± 1.17 . The VAS scores recorded at 15, 30, and 60 min post-treatment were 3.59 ± 2.88 , 3.38 ± 2.93 , and 2.57 ± 2.87 , respectively. The mean time to pain cessation following ISWI was 8.66 ± 15.53 minutes, and patients did not require additional analgesics for an average of 215.55 ± 15.53 minutes. Adequate pain control was not achieved in 18 patients (39.1%), necessitating rescue treatment. Among these 18 patients, 5 (27.8%) had stones larger than 6 mm, 6 (33.3%) had stones smaller than 6 mm, and 7 (38.9%) had stones measuring 3-6 mm. Of the patients requiring rescue treatment, 14 (77.8%) had stones located in the ureter. Only one patient (2.2%) reported nausea, and no other adverse events were reported by the remaining patients.

Discussion and Conclusion

This study highlights that ISWI is an effective and well-tolerated method for managing acute pain in patients presenting to the ED with renal colic. Most patients experienced significant pain relief within 8 minutes of treatment, and the analgesic effect lasted for several hours without requiring additional painkillers. These findings are consistent with existing literature, which supports ISWI as a viable alternative, particularly for patients who cannot use nonsteroidal anti-inflammatory drugs (NSAIDs) due to contraindications such as pregnancy or cardiovascular risk.



Despite its effectiveness, the treatment showed limited efficacy in cases involving larger stones or stones localized in the ureter. This observation underscores the need for further studies to evaluate the scope of ISWI's applicability in such scenarios. Additionally, this study did not investigate the underlying mechanisms of ISWI. Potential mechanisms, such as the release of endogenous opioids or the gate control theory of pain, remain speculative and require further exploration.

The retrospective and single-center design of this study poses limitations to the generalizability of the findings. Future research should focus on multicenter trials with larger and more diverse patient populations to confirm these results and investigate the physiological mechanisms driving ISWI's analgesic effects.

In conclusion, ISWI provides a safe and effective method for managing acute renal colic, offering rapid and sustained pain relief with a low side effect profile. It serves as a valuable alternative for patients in whom conventional pharmacological therapies are unsuitable. However, further research is essential to optimize its use and broaden its applicability in clinical practice.

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The utility of systemic inflammatory markers for distinguishing uncomplicated and complicated acute appendicitis in adult patients: A 3-year retrospective analysis

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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, mucocoele, 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 (%)	16 (55.17)	0.297
	Women n (%)	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)		Group 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





Note: Data are expressed as means $\pm$ 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: 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. Finally, 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.



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Predictive value of NT-proBNP for major adverse cardiovascular events within a 6-month period in patients with acute coronary syndrome

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Keywords: NT-proBNP; MACEs; GRACE score; acute coronary syndrome

Introduction

Cardiac troponins (cTn) are widely recognized as the gold standard for diagnosing and stratifying risk in acute coronary syndromes (ACS). However, elevated cTn levels are also observed in non-ACS conditions, which can complicate accurate diagnosis and treatment decisions [1]. This highlights the need for additional biomarkers that offer rapid and reliable assessment in ACS patients.

Current clinical guidelines recommend the use of N-terminal pro-B-type natriuretic peptide (NT-proBNP) as a prognostic tool in ACS. Despite its demonstrated utility, an effective and straightforward risk model integrating NT-proBNP remains lacking [2, 3]. Sole reliance on a single biomarker, such as high-sensitivity cardiac troponin (hs-cTn), can sometimes be misleading. Therefore, a multi-biomarker approach, combining complementary biomarkers, may enhance risk stratification and prognostication in ACS.

This study aims to evaluate the predictive utility of admission hs-cTnT and NT-proBNP levels for 6-month major adverse cardiovascular events (MACEs) in ACS patients who underwent percutaneous coronary intervention (PCI). It also examines the association between MACEs and specific ACS subtypes.

Methods

Study design and setting

This prospective study was conducted between September 2023 and February 2024, enrolling 241 adult patients with ACS. Patient demographics, clinical profiles, GRACE scores, and hs-cTnT and NT-proBNP levels were compared between MACE-positive and MACE-negative groups over a 6-month follow-up period

Outcomes

The primary aim was to evaluate the ability of NT-proBNP levels at admission to predict MACEs over 6 months in ACS patients. The secondary goal was to analyze the relationship between ACS subtypes and



MACE incidence.

Study population and sampling

Adults aged 18 years and older diagnosed with ACS in the emergency department (ED) and undergoing PCI within 24 hours were included. Exclusion criteria were:

- Age below 18 years.
- Absence of vascular lesions identified via PCI.
- Structural or infective cardiac conditions (e.g., myocarditis, pericarditis).
- Pre-existing chronic heart failure with LVEF < 40% or Killip class 3–4.
- Chronic kidney or liver disease, active malignancy, or recent major trauma or surgery within the last month.

Results

The study included 241 ACS patients (81.3% male, 53% female), with a mean age of 57.9 ± 13.2 years. Hypertension and diabetes mellitus were each reported in 60.2% of patients, while 36.1% had a history of CAD. At presentation, 55.2% had STEMI, 33.6% had NSTEMI, and 11.2% had USAP. During the 6-month follow-up, 16.5% revisited the ED with heart failure, 28.6% had a nonfatal myocardial infarction, and 4.9% suffered a nonfatal ischemic stroke. The overall mortality rate was 8.7%, and MACEs occurred in 43.2% of patients (Table 1).



Table 1. Comparative analysis of demographic and clinical characteristics in patients with or without MACEs.

Characteristic	MACE-negative (n = 137)	MACE-positive (n = 104)	p-value
Age in years, mean $\pm$ SD	53.2 $\pm$ 12.5	64.2 $\pm$ 11.4	< 0.001
Sex, n (%)			
Male	124 (90.5)	72 (69.2)	< 0.001
Female	13 (9.5)	32 (30.8)	
Smoking, n (%)	79 (57.7)	44 (42.3)	0.018
ACS subtype, n (%)			
STEMI	77 (56.2)	56 (53.8)	0.715
NSTEMI	37 (27.0)	44 (42.3)	0.013
USAP	23 (16.8)	4 (3.8)	0.002
Comorbidity, n (%)			
Hypertension	64 (46.7)	81 (77.9)	< 0.001
Diabetes mellitus	31 (22.6)	49 (47.1)	< 0.001
Coronary artery disease	33 (24.1)	54 (51.9)	< 0.001
Laboratory parameters, mean $\pm$ SD			
hs-cTnT (ng/L)	87.1 $\pm$ 279.7	318.0 $\pm$ 629.9	< 0.001
NT-proBNP (pg/mL)	129.2 $\pm$ 158.8	2622.3 $\pm$ 4787.2	< 0.001
LVEF, mean $\pm$ SD			
At admission	56.4 $\pm$ 3.7	51.5 $\pm$ 6.1	< 0.001
Six-month follow-up	55.4 $\pm$ 4.3	43.8 $\pm$ 8.2	< 0.001
GRACE score, mean $\pm$ SD	87.2 $\pm$ 23.8	130.6 $\pm$ 29.3	< 0.001



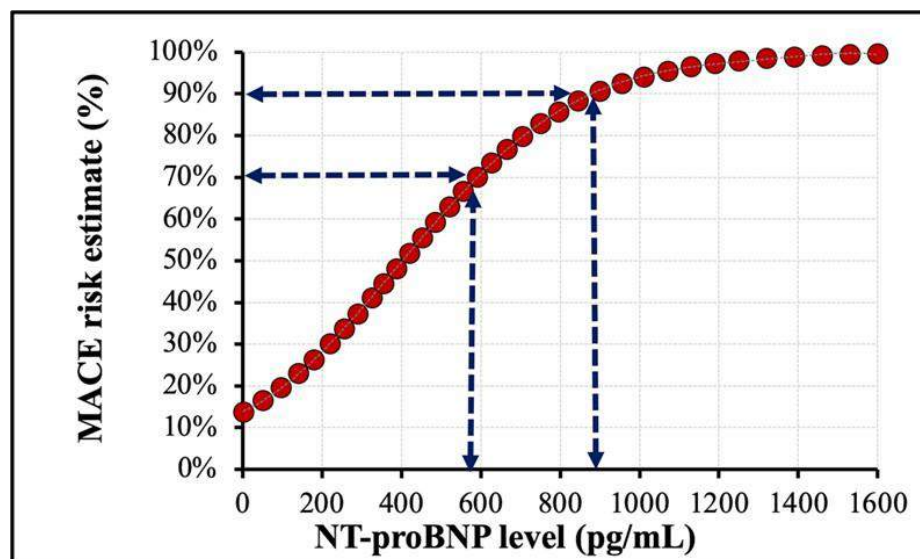
Significant differences were observed between MACE-positive and MACE-negative groups. MACE-positive patients were older, had higher smoking rates, and were more likely to have hypertension, DM, and CAD. NSTEMI incidence was significantly higher, and USAP incidence was lower in the MACE-positive group. hs-cTnT, NT-proBNP levels, and GRACE scores were higher, while LVEF was lower at both admission and follow-up in this group (Table 2).

Table 2. Independent predictors of MACEs identified in univariate and multivariate logistic regression analysis.

Characteristic	Univariate Model			Multivariate Model		
	OR	%95 CI	P-value	OR	%95 CI	P-value
Age	1.078	1.051 - 1.105	< 0.001	0.894	0.833 - 0.960	0.002
Sex	4.239	2.090 - 8.597	< 0.001			
Smoking	0.538	0.321 - 0.902	0.019			
Hypertension	4.017	2.267 - 7.117	< 0.001			
Diabetes mellitus	3.046	1.748 - 5.308	< 0.001			
Coronary artery disease	3.404	1.966 - 5.893	< 0.001	4.863	2.055 - 11.506	< 0.001
hs-cTnT	1.002	1.001 - 1.003	< 0.002			
NT-proBNP	1.005	1.003 - 1.006	< 0.001	1.003	1.002 - 1.005	< 0.001
GRACE score	1.062	1.046 - 1.079	< 0.001	1.097	1.055 - 1.141	< 0.001

Multivariate regression identified age, CAD, NT-proBNP levels, and GRACE scores as independent predictors of MACEs. An NT-proBNP level of 250 pg/mL showed 73.1% sensitivity, 88.3% specificity, a positive predictive value of 82.6%, and a negative predictive value of 81.2% for MACEs (AUC 0.847) (Table 3). Patients with NT-proBNP > 250 pg/mL had significantly higher mortality (18 deaths vs. 3, $p < 0.001$). Increasing NT-proBNP levels were associated with higher MACE risks, with levels of 600 pg/mL and 900 pg/mL corresponding to 70% and 90% risks, respectively (Figure 1).

Figure 1. Estimated MACE risk based on the NT-proBNP level



Discussion

Elevated NT-proBNP levels have been extensively linked to MACEs in ACS patients, serving as a reliable prognostic biomarker for recurrent ischemic events and heart failure. In this study, NT-proBNP levels at admission demonstrated significant sensitivity and specificity in predicting MACEs [4, 5, 6]. Unlike cTn, which reflects cardiomyocyte necrosis, NT-proBNP indicates myocardial stress, making it a superior early marker [5, 7, 14].

Combining NT-proBNP with hs-cTnT improves the accuracy of risk prediction in ACS, particularly in NSTEMI and unstable angina (USAP) subtypes, where elevated NT-proBNP levels are associated with higher MACE risks [7, 8]. The study also found higher MACE rates in NSTEMI patients, likely due to older age and greater prevalence of comorbidities compared to STEMI patients [9, 10]. While STEMI patients experience higher short-term risks, their long-term prognosis is better due to more effective guideline-based treatments [10, 11].

The lack of significant differences between MACE-positive and MACE-negative STEMI patients in this study may be attributed to the medium-term follow-up duration and the absence of data on symptom onset [11].

Conclusion

This study confirms that NT-proBNP levels at ED admission are robust predictors of short-term MACEs across all ACS subtypes, independent



of other risk factors and hs-cTnT levels. Predictors such as advanced age, CAD, elevated NT-proBNP levels, and higher GRACE scores can inform clinical decision-making for hospital admission. Integrating NT-proBNP data with GRACE scores during admission may enhance risk stratification and improve prognostication in ACS patients.

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A CASE OF INTERRUPTION OF HEMODIALYSIS DUE TO SEVERE HEADACHE

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Keywords: headache, hemodialysis, chronic kidney failure, subdural hematoma, new gen. oral anticoagulants (NOAC)

Introduction

Oral anticoagulants are widely used for long-term prevention and treatment of venous and arterial thromboembolism. Until recently, vitamin K antagonists, such as warfarin, were the only available oral anticoagulants. This situation change Oral anticoagulants are widely used for long-term prevention and treatment of venous and arterial thromboembolism (1). Until recently, vitamin K antagonists, such as warfarin, were the only available oral anticoagulants. This situation changed with the recent introduction of the non-vitamin K antagonist oral anticoagulants (NOACs), which include dabigatran, rivaroxaban, apixaban, and edoxaban. Designed to overcome the limitations of warfarin, the NOACs have revolutionized oral anticoagulation because they are at least as effective as warfarin, but are more convenient to administer because the NOACs can be given in fixed doses without routine coagulation monitoring. Moreover, as a class, the NOACs are associated with significantly less intracranial bleeding than warfarin (1,2).

This is an important advantage because bleeding into the brain is the most feared complication of anticoagulation therapy's with the recent introduction of the non-vitamin K antagonist oral anticoagulants (NOACs), which include dabigatran, rivaroxaban, apixaban, and edoxaban. Designed to overcome the limitations of warfarin, the NOACs have revolutionized oral anticoagulation because they are at least as effective as warfarin, but are more convenient to administer because the NOACs can be given in fixed doses without routine coagulation monitoring. Moreover, as a class, the NOACs are associated with significantly less intracranial bleeding than warfarin. This is an important advantage because bleeding into the brain is the most feared complication of anticoagulation therapy (1,3)

In patients taking oral anticoagulants (OACs), the annual rate of intracranial hemorrhage is 0.3% to 0.6% (2).



Case

A 46-year-old woman presented to the emergency department with persistent headache for 10 days and feeling discomfort during routine hemodialysis. Her vital signs were 140/80 mm Hg SpO₂ 98%, HR, 87 and GCS 15. On examination there was no significant finding during neurological examination all reflexes and motor functions were normal. Laboratory results are: WBC 8,890*3/ μ l, HGB 11,9 g/ dl, platelet 210.000, Glucose 233 mg/dL, 7.29mg/dL eGFR 6, CRP 79,06 pH 7.34 pCO₂ 52,6 K 4.73mmol/dL. Due to chronic kidney failure, the patient has left arm arteriovenous shunt and had a history of thromboembolism due to jugular vein catheterization. She was taking rivaroxaban due to thromboembolism

Head computed tomography was performed, and the patient has subacute frontoparietal subdural hematoma, shifting at midline to right shifting degree was 7-8mm left 3rd ventricle got compressed. The patient was consulted with the Department of Neurosurgery, had observed for 4 hours in Emergency Room (ER) then hospitalized for emergency decompression operation.

Because of patient was under NOAC treatment; and developed mental status decline and enlargement at hemorage site Cofact (concentrate of 4 coagulation factors) had been applied at ER at 25-50 IU /kg dosage.

Discussion

Intracranial hemorrhage (ICH) affects 0.2-0.5 % of atrial fibrillation (AF) patients taking a novel oral anticoagulant (NOAC) each year. About two thirds of ICHs are intracerebral and one quarter subdural. The 30-day case fatality of NOAC-associated ICH was similar to that of warfarin-associated ICH in two trials. Consistent predictors of ICH are increasing age, a history of prior stroke or TIA, and concomitant use of an antiplatelet drug. Compared to warfarin, the NOACs significantly reduce the risk of ICH by half (risk ratio = 0.44; 95 % CI: 0.37 to 0.51). Compared to aspirin, apixaban has a similar risk of ICH (risk ratio = 0.84; 95 % CI, 0.38 to 1.87 (4.5).

In summary, even clinical and laboratory finding suggest NOACs are more safe than Warfarin therapy, still clinician has to suspect about ICH even patients complains are persistent for 10days. And due to active hemorrhage. Even there is no accessible antidote for rivaroxaban PCCs are only option for clinician.

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Management of Bleeding in 15 Minutes with COFACT in Patients Using Warfarin or DOAC

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Antithrombotic agents are drugs that prevent clot formation in the vessel or dissolve the clot that has formed. Thus, antithrombotics can be used therapeutically in the prevention or treatment of acute thrombus. Different antithrombotic drugs affect different coagulation processes. Antiplatelets limit platelet migration or aggregation, while anticoagulants impair the blood's ability to clot by inhibiting the activity or production of clotting factors. Finally, thrombolytic drugs act to dissolve the formed clot.

The clinical use of antithrombotics is a decision based on the risks and benefits of the drugs. The critical concern with antithrombotic therapy is the possibility of increasing the risk of bleeding or worsening existing bleeding (1). The incidence of intracranial hemorrhage associated with warfarin varies between 0.3% and 2.0%. In addition, non-traumatic intracranial hemorrhage is 7-10 times more common in Warfarin users than in those not using any anticoagulants (2). In addition, the likelihood of hematoma and bleeding site expansion is higher in antithrombotic drug users compared to cases of spontaneous intracranial hemorrhage unrelated to antithrombotics, and patients with antithrombotic-related bleeding are at increased risk of death or poor clinical outcome (3,4). Antithrombotic-related bleeding is expected to become more common in the coming years due to the introduction of new antithrombotic agents, the aging patient population, and the more widespread use of antithrombotic drugs (5). Reversing the effects of antithrombotic agents is of vital importance in patients with antithrombotic-related intracranial hemorrhage. Although antithrombotic-related intracranial hemorrhage is extremely devastating, early reversal of coagulopathy may help limit the expansion of the hematoma and bleeding site and improve clinical outcome. In patients with acute intracerebral, intraventricular, subarachnoid, subdural, or epidural hemorrhage associated with antithrombotics, reversal of antithrombotic effect is of critical importance. Continued bleeding and expansion of the hemorrhage site may lead to neurological deterioration, increased intracranial pressure, poor clinical outcome, or death. In this section, treatment recommendations for reversal of antithrombotic drug effects in patients with intracranial hemorrhage will be reviewed with current guidelines and literature.

Evaluation at the Emergency Department

Patients with symptomatic intracranial hemorrhage usually present with acute onset neurological symptoms. Although clinical presentation is quite variable, signs of intracranial hemorrhage may include neurological deficits, aphasia, seizures, and hemiparesis. However, symptoms are not always so clear-cut. Some patients may have a



normal neurological examination and present to the clinic with vague complaints such as headache, nausea, and

vomiting (6). The primary goal of the emergency department evaluation is to document as quickly as possible whether the presenting symptoms are due to intracranial hemorrhage and the relationship of the detected intracranial hemorrhage to antithrombotic drugs. This will determine the need for reversal therapy and, if necessary, the antidote.

Symptomized acute intracranial hemorrhages are considered life-threatening, and reversal of antithrombotic effect is indicated in these patients regardless of the extent of hemorrhage seen on initial brain imaging (7). In stable patients with limited, chronic subdural hemorrhage and no signs of increased intracranial pressure, the potential benefit of reversing the antithrombotic effect should be carefully considered against the underlying thrombosis risk that prompted the antithrombotic treatment. Since agents that reverse antithrombotic treatment are also prothrombotic, reversal therapies should only be administered to patients with documented intracranial hemorrhage by imaging. Empiric reversal therapy is not recommended in patients with suspected intracranial hemorrhage without imaging confirmation (7).

General Precautions for All Antithrombotics

The primary goal of treatment is to reverse the antithrombotic effect and limit further growth of existing hemorrhage. Studies have shown that hematoma growth within the first 24 hours after intracranial hemorrhage is associated with mortality and poor clinical outcome (8). Therefore, anticoagulant and antithrombotic treatments should be discontinued in almost all cases.

High blood pressure is an important risk factor for hematoma expansion and poor clinical outcome in patients with intracranial hemorrhage (9). In a study conducted with patients using oral anticoagulants and having intracranial hemorrhage, it was shown that reversal of the anticoagulant effect and blood pressure control were associated with a reduction in hematoma size and in-hospital mortality (10).

Reversal Therapies for Specific Antithrombotics

Agent-dependent reversal strategies vary depending on which drug the patient is receiving. In acute and symptomatic cases, reversal should be performed as rapidly as possible but only when intracranial hemorrhage is documented to avoid unnecessary administration of potentially prothrombotic drugs to a person at high risk of thrombosis (11,12). Reversal strategies for specific antithrombotics were reviewed using the “Guideline for Reversal of Antithrombotics in Intracranial Hemorrhage” prepared by the Neurocritical Care Society and the Society of Critical Care Medicine in 2016 (13) and the “2022 Guideline for the Management of Patients with Spontaneous Intracerebral Hemorrhage” prepared by the American Heart Association and the American Stroke Association in 2022 (11).

Vitamin K Antagonists (Warfarin)



Intracranial hemorrhage due to anticoagulation with vitamin K antagonists; To ensure endogenous production of vitamin K-dependent factors (factors II [prothrombin], VII, IX, and X), a source of clotting factors and additional vitamin K should be treated (11).

The most important laboratory indicators of warfarin-induced anticoagulation are prolonged prothrombin time (PTz) and increased INR (International Corrected Ratio; usually ≥ 1.4). Following intracranial hemorrhage due to vitamin K antagonists, our goal for INR is <1.4 (13).

International guidelines recommend that 10 mg intravenous (IV) vitamin K be administered as the first step to achieving the target INR. Vitamin K should be administered as soon as possible and dosed with other reversal agents to ensure that the INR value reaches the target value permanently. Vitamin K should be administered by slow IV infusion at no faster than 1 mg/min to minimize the risk of anaphylaxis (14).

The primary source of clotting factors to reverse the effects of vitamin K antagonists is the 4-factor prothrombin complex concentrate (PCC). PCC allows the rapid administration of vitamin K-dependent factors (factors II [prothrombin], VII, IX, and X) in a small volume and allows the target INR to be achieved in a short time. Therefore, 4-factor PCC is the first-choice reversible agent. In the treatment application with PCC, doses adjusted according to the patient's weight should be administered according to institutional protocols. However, since the effect of PCC is transient (within hours), it should be administered together with vitamin K (13,14). In cases where PCC is not available, a plasma product such as fresh frozen plasma (FFP) can be used. However, FFP requires a much larger administration volume and generally delays the time to normalization of the INR and may continue to expand the intracranial hematoma during this period. In addition, FFP carries the risk of transfusion reactions (7). The PTz-INR level should be checked at 30 minutes following PCC (or FFP) administration and then every four to six hours for the first 24 hours, and then daily for several days. If the INR is still equal to or greater than 1.4 within 24–48 hours after the reversible agent administration, additional PCC or plasma doses can be given with repeated administration of 10 mg vitamin K (13).



Factor Xa Inhibitors

Anticoagulation with factor Xa inhibitors (Apixaban, Edoxaban or Rivaroxaban) should be evaluated primarily by bleeding (major or intracranial) complications, not by laboratory tests. Therefore, reversal treatments are also followed by clinical observation (13). Especially in patients with major or intracranial bleeding, Andexanet Alfa (an agent that reverses the effects of factor Xa inhibitors) or 4-factor PCC constitute the basic building blocks of reversal treatments. In addition, it should be ensured that the factor Xa inhibitor is discontinued.

In oral use, unabsorbed factor Xa inhibitors can be removed from the gastrointestinal tract using activated charcoal. In order for activated charcoal to be effective, it must be administered orally (50 g) within the first two hours after the last intake (13). The absorption time of Apixaban and Rivaroxaban from the gastrointestinal tract can be extended up to six to eight hours. Therefore, activated charcoal can be administered for up to eight hours in patients using these drugs (15-17). Andexanet Alfa is a specific reversal agent designed to neutralize the anticoagulant effects of factor Xa inhibitors, both directly and indirectly (17). Clinical studies have shown that 4-factor PCC can be used as an alternative to Andexanet Alfa to reverse the effects of factor Xa inhibitors. In a study of patients who had intracranial hemorrhage while receiving apixaban or rivaroxaban, 4-factor PCC provided good or excellent hemostasis in 82% of patients. In addition, thrombosis occurred in only 3.3% of patients within 14 days after PCC administration (18). The dose of PCC to reverse the effects of factor Xa inhibitors is calculated based on weight, as for warfarin. Randomized clinical studies directly comparing the efficacy and safety of Andexanet Alfa with PCC for reversing factor Xa inhibitor anticoagulation are limited. However, considering the specificity of the drug and the available data, Andexanet Alfa is recommended as the preferred choice (19). Finally, factor Xa inhibitor anticoagulation cannot be achieved with hemodialysis treatment.

Direct Thrombin Inhibitors (Dabigatran)

Although Dabigatran anticoagulation causes laboratory changes such as prolonged activated partial thromboplastin time (aPTT), an aPTT in the normal range is not sufficient to consider discontinuation of treatment. Therefore, reversal therapies should be evaluated primarily by monitoring bleeding, not by laboratory tests (13). Idarucizumab is the emergency reversal agent for Dabigatran. In addition, oral activated charcoal (50 g) is recommended for patients presenting within the first two hours after oral administration, and hemodialysis is recommended for



patients with renal failure or Dabigatran overdose if Idarucizumab is not available (13). PCC can be used to reverse anticoagulation in cases of Dabigatran-associated intracranial hemorrhage but Idarucizumab is not available.

Idarucizumab is a monoclonal antibody used as a reversible agent for Dabigatran. It can be administered for urgent surgical/emergency procedures in patients receiving Dabigatran and for life-threatening or uncontrolled bleeding (20). In a study conducted by Pollack et al., Idarucizumab was reported to effectively reverse Dabigatran-induced anticoagulation within minutes (21). The dose administered is 5 g, and a single vial contains 2.5 g of drug. The recommended dose is 5 g administered as two consecutive infusions of 2.5 g/50 mL idarucizumab (two separate vials) or as a single injection of both vials sequentially via syringe. Repeat dosing is generally not necessary, but may be recommended in cases such as high-dose Dabigatran use or persistent aPTT (20,21). Dabigatran treatment can be initiated 24 hours after Idarucizumab administration (21). **Keywords:** Antithrombotic, Warfarin, new generation anticoagulants, intracranial hemorrhage

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Can diaphragm thickness measured by US predict the need for NIMV?

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The diaphragm is the most effective muscle in respiratory function and its dysfunction is associated with many serious complications. Assessment of the diaphragm by ultrasonography (DUS) is a quite new procedure and has been firstly used in intensive care units.

To date, the techniques used to investigate diaphragmatic dysfunction either cause radiation exposure in patients (computed tomography, fluoroscopy) or involve complex steps (diaphragmatic electromyography, phrenic nerve stimulation, magnetic resonance imaging). The existing disadvantages of these techniques have an important role in the widespread use of DUS.

The DUS procedure offers a practical application opportunity that can be included in the bedside ultrasonography practice that we frequently use in the emergency department. DUS application performed to examine diaphragm dysfunction consists of 2 different procedures (1). The first of these is 'diaphragm excursion' which examines the caudal movement of the diaphragm with respiration. This procedure is performed from the right and left anterior axillary lines using a low frequency probe (phased array). The normal range is defined as approximately 1.8-2 cm. The second DUS examination procedure is 'diaphragm thickness'. This measurement is based on the examination of the diaphragm in the area between the abdomen and thorax in the lower lung region using a high frequency probe (linear). The rate of change in the thickness of the diaphragm between the pleura and peritoneum with respiration is examined. Although the normal range varies according to the respiratory capacity of individuals, it is defined between 1.8-3 mm on average.

It is observed that most of the studies in the literature related to DUS were performed in intensive care units and usually mechanical ventilator-related diaphragmatic dysfunction was investigated (2). However, the literature showing that DUS can be used to predict prognosis in COVID-19 patients is a brand new indicator for its use in emergency departments (3). There are many clinical conditions which DUS can be used in emergency departments and the first one that comes to mind is to predict the prognosis and evaluate the response to treatment in patients with respiratory distress. The fact that it can be used at the bedside and that it is repeatable may be a predictor that DUS will be a highly preferred procedure in emergency departments in the future. Therefore, it seems to be essential to add DUS to our daily bedside US practice in order to provide an 'emergency medicine' perspective to the literature.



Renal Replacement Therapy in Methanol Poisoning

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Introduction

Methanol poisoning is a medical emergency characterized by the ingestion of methanol, a toxic alcohol. It is often found in industrial solvents, antifreeze, and counterfeit alcoholic beverages. Methanol itself is relatively non-toxic, but its metabolism to formic acid and formaldehyde leads to severe metabolic acidosis, visual disturbances, and central nervous system depression. Renal replacement therapy (RRT) is a cornerstone in managing severe methanol poisoning, especially when toxic metabolites need rapid elimination.

Pathophysiology of Methanol Toxicity

Methanol is metabolized by alcohol dehydrogenase into formaldehyde and subsequently by aldehyde dehydrogenase into formic acid. Accumulation of formic acid leads to severe metabolic acidosis and systemic toxicity. The half-life of methanol increases with inhibited metabolism, making clearance through RRT an essential intervention in severe cases.

Indications for Renal Replacement Therapy

RRT is indicated in methanol poisoning when:

1. Blood methanol concentration exceeds 50 mg/dL.
2. Severe metabolic acidosis with pH <7.30 persists despite bicarbonate therapy.
3. Clinical signs of methanol toxicity (e.g., visual disturbances, neurological depression).
4. Deteriorating clinical status despite supportive care.

Modalities of RRT in Methanol Poisoning

1. Intermittent Hemodialysis (IHD):

- IHD is the most effective modality for removing methanol and formic acid due to its high clearance rates.
- It also corrects metabolic acidosis rapidly. Methanol's small molecular size and low protein binding make it highly dialyzable.
- Methanol clearance with hemodialysis can reach up to 200 mL/min, significantly reducing toxicity.

2. Continuous Renal Replacement Therapy (CRRT)

- CRRT is less effective than IHD for methanol clearance but may be used when IHD is unavailable or for patients with hemodynamic instability.
- Clearance rates are slower, necessitating prolonged therapy.

3. Other Considerations:

- Adjunctive use of fomepizole (alcohol dehydrogenase inhibitor) or ethanol to prevent methanol metabolism.
- Monitoring acid-base status and electrolyte levels during RRT to avoid complications.

RRT Protocol in Methanol Poisoning

- Pre-RRT Preparation: Initiate fomepizole or ethanol therapy to block methanol metabolism. Administer sodium bicarbonate to correct metabolic acidosis.
- During RRT: Use a high-flux dialyzer with a blood flow rate of 200–400 mL/min. Monitor serum methanol, formate levels, and pH. Adjust therapy based on clinical response.
- Post-RRT Care: Continue fomepizole or ethanol until serum methanol levels are undetectable (<6 mg/dL) and



clinical symptoms resolve.

Outcomes and Prognosis

Early initiation of RRT in severe methanol poisoning is associated with reduced morbidity and mortality. Delayed treatment increases the risk of permanent visual impairment and neurological sequelae.

Conclusion

Renal replacement therapy is a lifesaving intervention in methanol poisoning, particularly for patients with severe toxicity. Prompt initiation, coupled with supportive care and metabolic inhibitors, ensures effective removal of methanol and its metabolites, reducing complications and improving outcomes.

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4. Brent, J. (2009). Fomepizole for the treatment of methanol poisoning. *The New England Journal of Medicine*, 360(21), 2216-2223.



EXTRIP Guidelines Use In Emergency Toxin Removals: Updates and Pitfalls

Joshua King, MD, USA

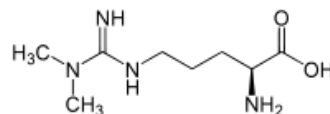
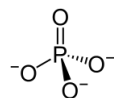
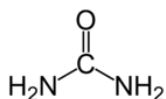
Associate Professor, Medicine and Pharmacy
Medical Director, Maryland Poison Center
University of Maryland, 24 Oct 2024

Disclosures

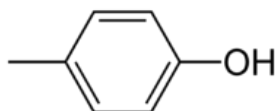
I have no personal or professional financial relationships or interests with any proprietary entity producing healthcare goods/or services. I am a member of EXTRIP. I like to make jokes – this doesn't mean that they are good jokes!

Toxicokinetics and V_D

- Low V_D : ≤ 1 L/kg
 - Distributes preferentially to p
 - Hydrophilic (polar) drugs
- High V_D : > 1 L/kg
 - Drug primarily in tissue
 - Not linear

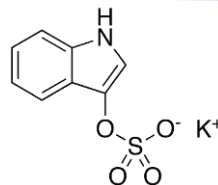


Asymmetric dimethylarginine



p-cresol

Indoxyl



Amitriptyline

Diltiazem



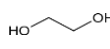
Urea



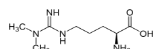
Phosphate



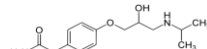
Aspirin



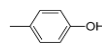
Ethylene glycol



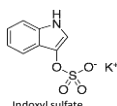
Asymmetric dimethylarginine



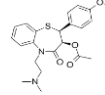
Atenolol



p-cresol



Indoxyl sulfate

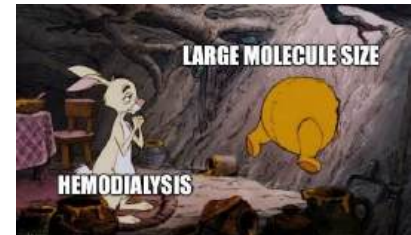






Principles of dialysis of drugs

Rule 2: Must be small enough to pass the dialyzer membrane (say, <5000 daltons)
Vast majority of drugs are this small

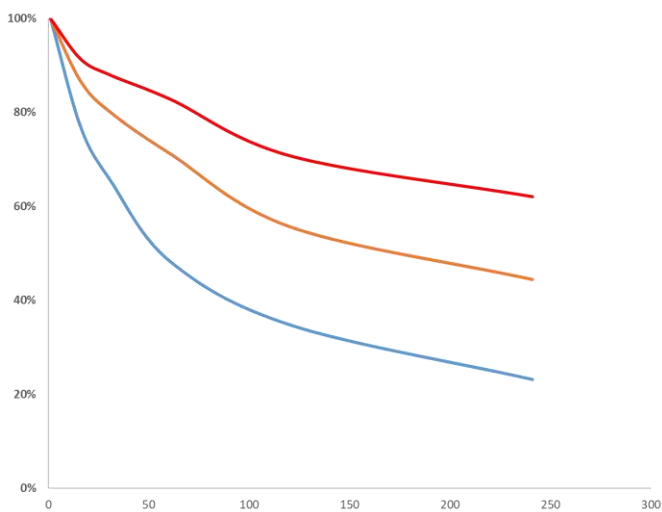


Standard HD dialyzers

Hemodialysis					
$Q_D = 800 \text{ mL/min}$, $UF = 0 \text{ mL/min}$					
$Q_B \text{ (mL/min)}$	200	300	400	500	
Urea	199	286	355	408	
Creatinine	194	269	324	364	
Phosphate	191	259	307	343	
Vitamin B ₁₂	154	187	208	223	

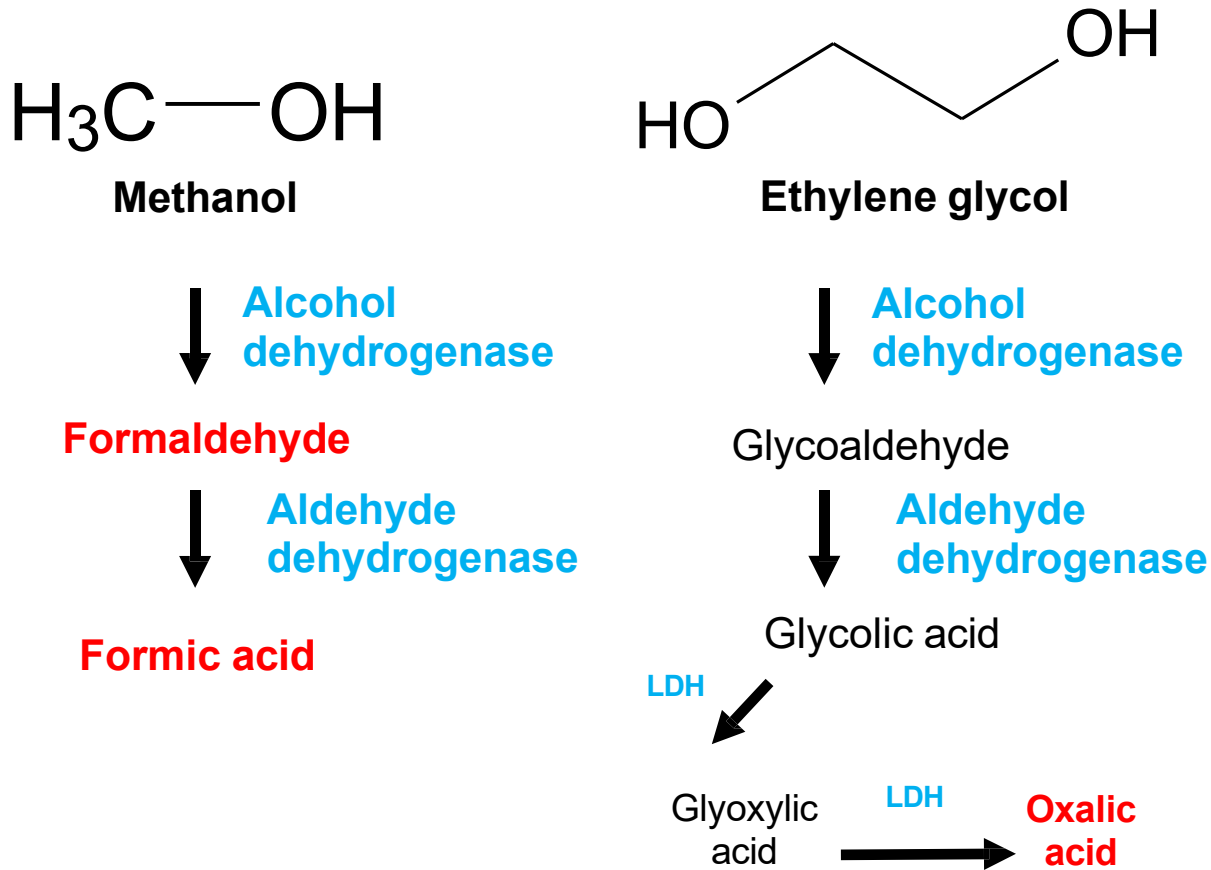
Principles of dialysis of drugs

Rule 3: Must be “free” drug (not bound to plasma proteins)



Time (minutes) on hemodialysis

Adapted from: Scientific Reports | 7: 10371 PLOS ONE | DOI:10.1371/journal.pone.0147159



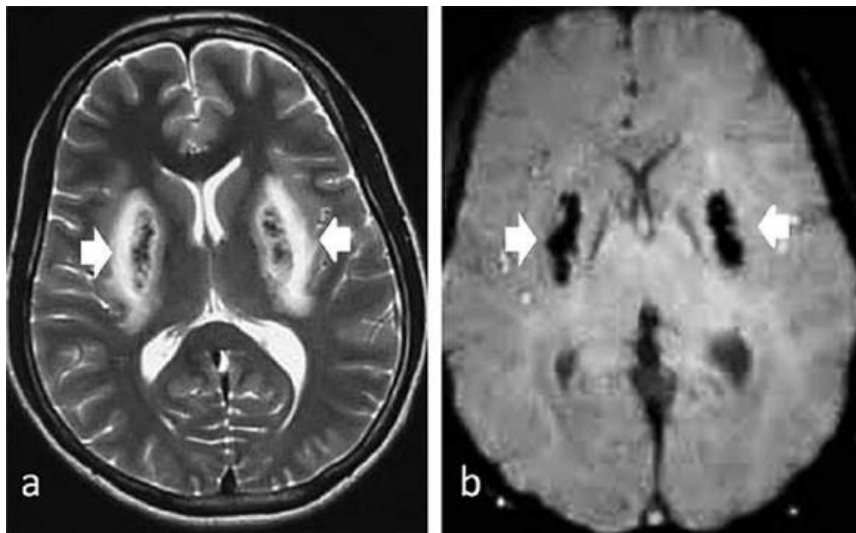
Mitochondrial damage	Mechanism of metabolite toxicity	Calcium oxalate crystal precipitation
Blindness, coma, brainstem necrosis	End-organ acute toxicity	AKI; rarely, CNS, myocardial tissue damage

Toxic alcohols

Methanol

- **Windshield-washing fluid**, solvents, paints
- **Illicit alcohol** (note: rarely in USA)
- Lethal dose only 30-100 mL
- Specific toxic effects:
- **CNS damage**, optic nerve/eye damage with **blindness**
- Inebriation is **not** a prominent symptom

MR scan of the brain showing (A) bilateral putaminal hyperintensity on T2-weighted image with (B) blooming on the gradient echo image, due to haemorrhage.



Prabhat Singh et al. Pract Neurol 2013;13:204-205

Ethylene glycol

- Found in antifreeze, solvents, cosmetics
- Lethal dose is ~100 mL
- Specific toxic effects:
- Inebriation / CNS depression present
- Precipitation of calcium oxalate in kidneys, other organs – AKI and (rarely) CNS toxicity
- Hypocalcemia

Toxic alcohols: Treatment

- Alcohol or fomepizole
- Inhibits alcohol dehydrogenase
- Prevents formation of toxic metabolites

If metabolites already formed: dialysis



Methanol poisoning: ECT

We recommend ECTR in the following circumstances:

Severe methanol poisoning, including any of:

- **Coma**
- **Seizures**
- **New vision deficits**
- **Metabolic acidosis: $\text{pH} \leq 7.15$ or anion gap > 24**

Serum methanol concentration $> 70 \text{ mg/dL}$

- **(If unknown: use your best judgment)**
- **Intermittent hemodialysis is the modality of choice**
- Stop ECTR when $[\text{MeOH}]$ is $< 20 \text{ mg/dL}$ and clinical improvement is observed

Ethylene glycol poisoning: ECT

Severe EG poisoning including any of:

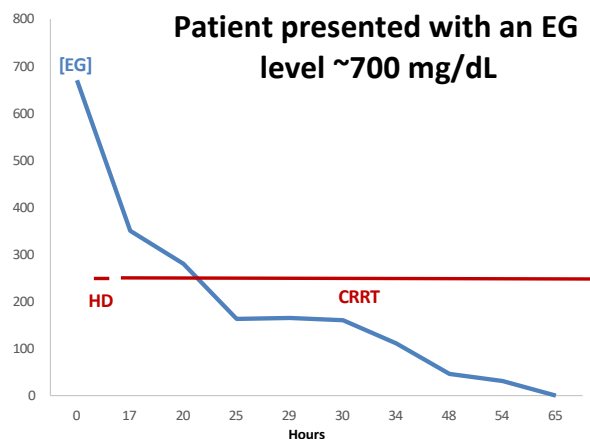
- **Coma or seizures**
- **AKI (KDIGO stage 2 or 3) recommended**
- **CKD (eGFR < 45) suggested**
- **Metabolic acidosis: anion gap* $> 24 \text{ mEq/L}$ recommended**
 - ...also, $\sim 19\text{-}23$ "suggested"

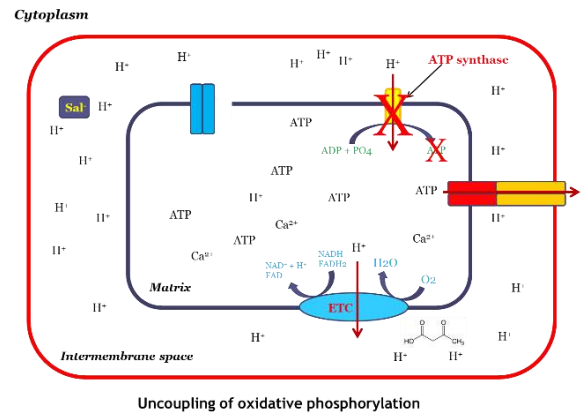
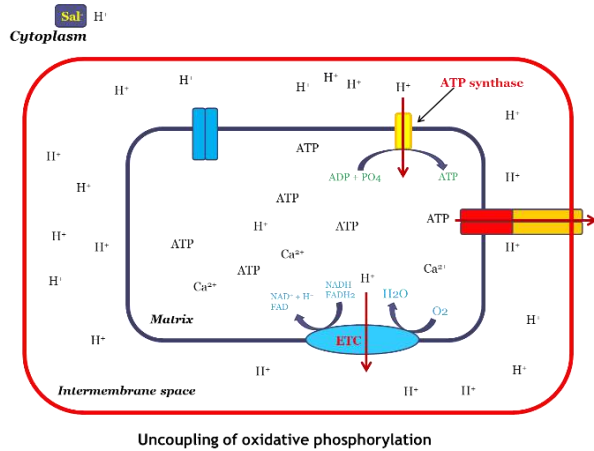
Anion gap: $\text{Na} - \text{Cl} - \text{HCO}_3$

Ethylene glycol poisoning: ECT

Serum ethylene glycol level of $> 310 \text{ mg/dL}$

- Based on osmol gap: **OG > 50 recommended**
- **OG 20-50 suggested**
- **If unknown – use your best judgment**
- This assumes ethanol is used
- Stop HD:
 - EG concentration is $< 25 \text{ mg/dL}$ (OG < 5)
 - **And** AG normalized





Salicylate toxicity

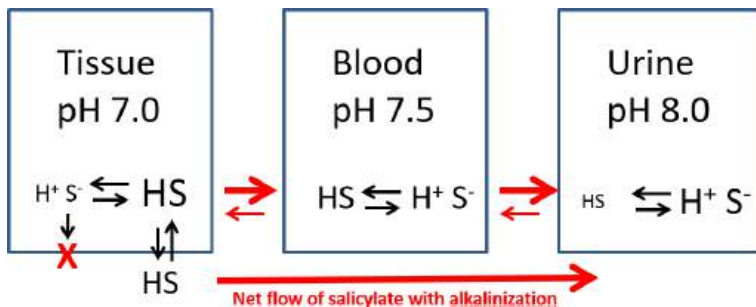
- **Anion gap metabolic acidosis**
 - Exogenous acid (salicylate itself)
 - Uncoupling -> lactic acidosis
 - Stimulates fatty acid oxidation - ketoacidosis
- **Respiratory alkalosis**
 - Primary alkalosis: stimulation of respiratory center
- **Tinnitus** (cochlear toxicity)
- **GI toxicity** – local effect (prostaglandins)
- **CNS toxicity**
 - Mild – mild agitation
 - Severe – agitated delirium -> coma, seizures
- Very large (**or late-presenting**) overdoses
 - Uncoupling (**hyperthermia, shock**)
 - **Cerebral edema** -> coma, seizures, herniation
 - Noncardiogenic **pulmonary edema** / ARDS
- Management



- Activated charcoal
- Pharmacobezoars!
- Glucose
- Alkalinization
- Avoid sedatives, beware intubation (pH ↓)
- Hemodialysis

Alkalinization

- Role of systemic pH: ion trapping
 - Goal: flow of salicylate **out of tissue**
 - Only unionized salicylate (HS) crosses membranes



Salicylates and dialysis

- Well removed. Dialysis half-life 2-3 hours.
- Indications for dialysis:
 - Salicylate level >100 mg/dL
 - Salicylate level >90 mg/dL in AKI
 - **Severe AMS** or cerebral edema
 - New hypoxia (**pulmonary edema**)
 - **Worsening** despite treatment

Lithium: ECT

- **Recommended indications for dialysis**
 - Level > 4 mEq/L in AKI/CKD
 - Decreased level of consciousness
 - Arrhythmias or seizures
- **Suggested**
 - Level > 5 mEq/L in anyone
 - **Expected prolonged time to <1 mEq/L (>36 hours)**
 - Confusion
- Cessation
 - Level <1 mEq/L
 - After a minimum of 6 hours if [Li] is not readily available



Lithium: summary

Data do not support HD over CRRT

When to dialyze: lower threshold for chronic toxicity, older patients, existing neurological disease in my opinion

Chronic neurotoxicity almost always seen in chronic Li toxicity (vs acute, acute on chronic)



Antidote Stocking in Emergency Department: Do we need all?

Dr. Badria Alhatali, M.D, FACMT, FRCP, SB
Emergency Medicine and Toxicology Consultant
Head of the Poison Control Section, Oman CDC

A 69-year-old man, brought to the ED with confusion, vomiting, and reduced level of consciousness. External pacing started and, in few minutes, the patient went into refractory VF, Digoxin Immune Fab was not available in that hospital. The patient life could not be saved

Objectives

By the end of this presentation, you will be able to understand :Understand the challenges with antidotes stocking in the emergency department
 Highlight contravercy in regards to Andexanet alfa use, Understand the new application of fomepizole in paracetamol overdose

Introduction

Antidotes are a critical component in the care of poisoned patients. Important antidotes often are not stocked at all or are stocked in an insufficient amount. Many institutions stock more of an antidote than is appropriate

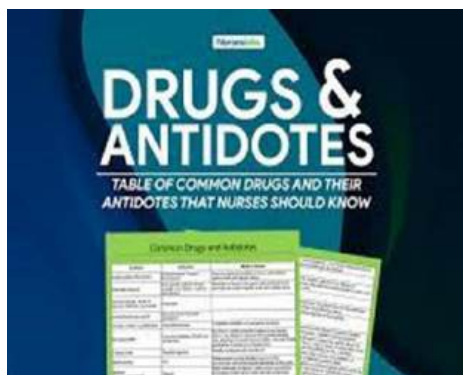
Reasons for shortage

- High medication costs
- Lack of emphasis on antidote importance
- Variable international standards
- Hospital size
- Drug availability

Shortage of Antidote Stocking (Global problem)

Delayed administration of appropriate antidote can be associated with serious outcomes leading to death. Surveys carried out in several countries in the EMRO region have consistently demonstrated inadequate availability of a variety of antidotes. Do we really need to stock antidotes in our **Emergency Departments**? Which antidotes need to be **immediately** available? Which antidotes can be stoked **out of hospitals**?

Guidelines on antidotes stocking



Review > Ann Emerg Med. 2018 Mar;71(3):314-325.e1. doi: 10.1016/j.annemergmed.2017.05.021.
 Epub 2017 Jun 29.

Expert Consensus Guidelines for Stocking of Antidotes in Hospitals That Provide Emergency Care

Richard C Dart ¹, Lewis R Goldfrank ², Brian L Erstad ³, David T Huang ⁴, Knox H Todd ⁵, Jeffrey Weitz ⁶, Vikhyat S Bebarta ⁷, E Martin Caravati ⁸, Fred M Henretig ⁹, Theodore R Delbridge ¹⁰, William Banner ¹¹, Sandra M Schneider ¹², Victoria E Anderson ¹³

Affiliations + expand

PMID: 28669553 DOI: 10.1016/j.annemergmed.2017.05.021

Evidence



Rodent studies¹

- NAC alone
- 4-MP alone
- NAC + 4-MP



Case reports / series^{2,3}

- serum [APAP] = 1,017 mcg/mL (6,728 mmol/L)²
- n = 14³
 - peak serum [APAP] ranged 11 – 791 mcg/mL
 - AT*APAP product ranged 1602 – 97,488 (5/14 cases >10,000)
 - all patients survived, 1 received HD

When to consider trying fomepizole?

When serum APAP level measured at 4hrs or later after a single ingestion >300 µg/mL in the nomogram

Ingestion When evidence of hepatic injury (high ALT) upon initial assessment or subsequent measurement within 24 hrs. of last

Consider using fomepizole

- Growing evidence of its value in APAP toxicity
- Prevents the amplification of the mitochondrial oxidant stress and cell death
- Facilitates hepatocyte regeneration
- Prevents AKI (compare to NAC)





POCUS Advances in Trauma

Kimberly Herard, MD, USA
 Emory University Department of Medicine Ultrasound Faculty
 Ultrasound Education Director, Emory PA School

Objectives

- Review the indications of the eFAST examinations
- Review additional POCUS techniques utilized to stabilize trauma patients
- Understand how to utilize POCUS to identify various traumas
- Review use of POCUS for airway stabilization.
- Understand UCAs, appreciate the benefits of CEUS

Case

A 43 year old male involved in sudden explosion while in the park near outdoor grill/cooking station. Patient was in vicinity of fire for approximately 5-8 minutes before regaining consciousness and being pulled away from rubble.

Primary and Secondary Survey

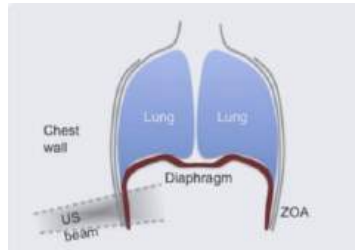
- A- Hoarse voice, wheezing, stridor
- B- wheezing
- C- Intact
- D- GCS 14 Pupils PERRL
- E- Facial swelling diffusely, singed nasal hairs, partial thickness burns—15%, penetrating wound to left lower abdomen





Diaphragmatic Injuries

- Often injured in blunt traumas
- ID on <50% of CXR



Additional Interventions?

- A- Hoarse voice, wheezing, stridor
- B- wheezing
- C- Intact
- D- GCS 14 Pupils PERRL
- E- Facial swelling diffusely, singed nasal hairs, partial thickness burns—15%, penetrating wound to left lower abdomen

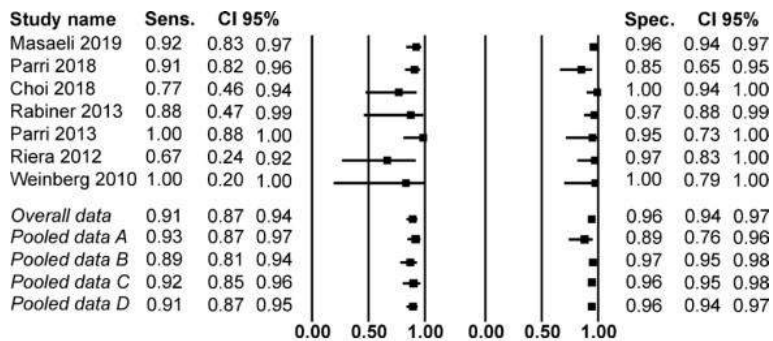


Figure 2

Good and Bad (vs iodinated contrast)

Advantages of UCA	Disadvantages of UCA
• Not nephrotoxic • Different allergy profile than iodinated agents • Real time evaluation • High spatial resolution • No ionizing radiation • Can do multiple injections • Low risk of major contrast reaction	• Same limitations as US • No global imaging • Operator dependent • Only FDA approved for liver imaging • FDA black box for ACS*



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Crisis Resource Management (CRM) in Trauma Patient Care and Trauma Education

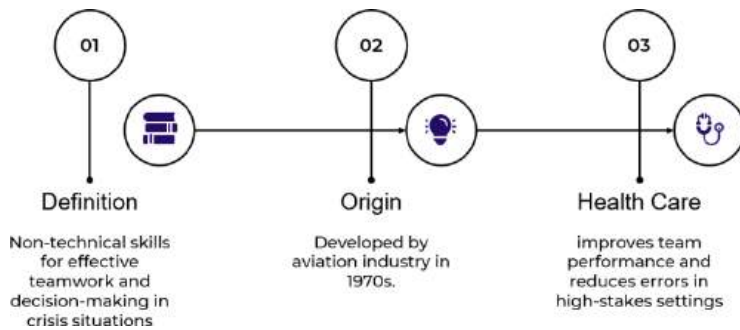
Dr. Sarfaraz Ahmed, PK

Consultant, Emergency Medicine.

Dr. Sikandar Ali Mandhro (Civil Hospital) Badin.

Disclaimer

- The presenter has no financial interests to declare and affirms the absence of any conflicts of interest in relation to the content of this presentation.



Core Elements of CRM in Trauma

Call for help EARLY



Environment: Know the location and use of essential equipment in critical situations.



Leadership: Assertive leadership with participative decisions



Anticipate: Think ahead, set priorities, and anticipate delays.



Role clarity: Defined Roles and proper handover during role changes.



Core Elements of CRM in Trauma

- Effective and closed loop communication
- Debriefing: Review to learn.
- Team Based Approach: Share Responsibility.
- Allocate attention wisely – avoid fixation

CRM in Trauma Education

- Simulation-Based Training:
 - Realistic trauma simulations,
 - Replicate high-stress conditions,
 - Allowing teams to practice CRM principles.



CRM in Trauma Education

Cognitive Aids:

- Use checklists
- Role assignments
- Equipment maps

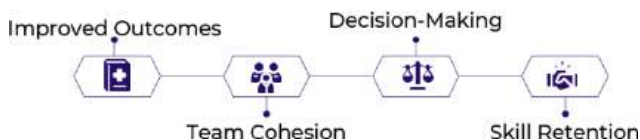


CRM in Trauma Education

- Collaborative Learning:
 - Encourage open communication
 - Teamwork during training
 - Promoting a shared mental model



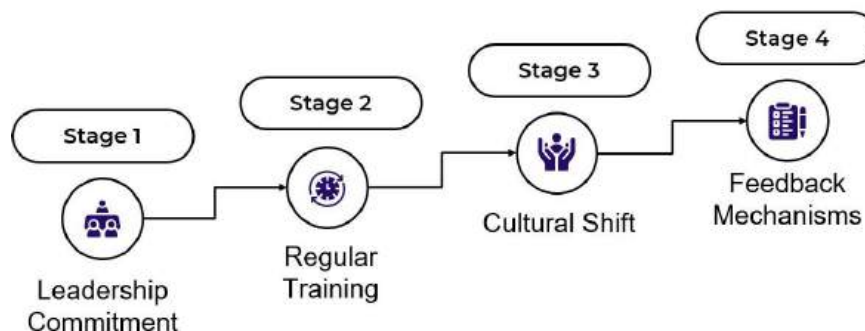
Benefits of CRM in Trauma Education



Challenges in Implementing CRM



Strategies for Effective CRM Integration





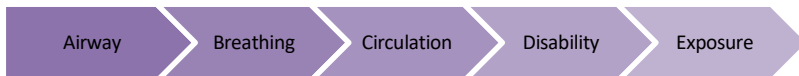
Updates in Trauma Care for Special Populations – A Focus on Pregnancy in Trauma

Anna Q. Yaffee, MD, MPH, USA
Associate Professor, Emergency Medicine
Emory University School of Medicine, Atlanta, Georgia USA

Background

Most common non-obstetric cause of maternal mortality
66% higher risk of death in trauma
Physiologic changes

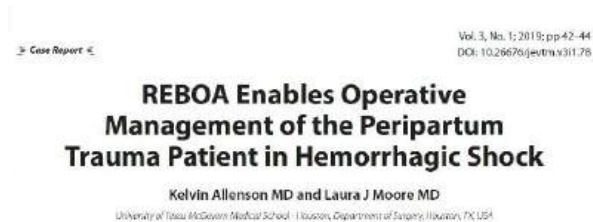
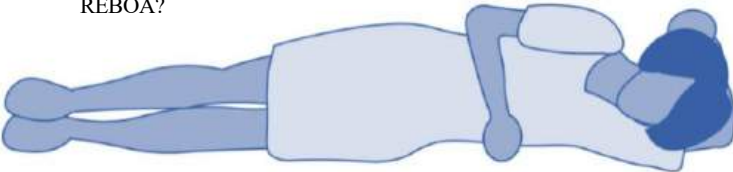
26-year-old F, 32 weeks pregnant, presenting after high mechanism RTA



By caring for the mother, you care for the fetus!

Primary Survey – Circulation

Rh IG
Tranexamic Acid – pregnancy category B
Perimortem C-section >20 weeks
REBOA?



Collaborative Advanced Trauma Care

Initial pilot in Karachi, Pakistan
Expanded to 5 sites within Pakistan, 3+ sites in Vietnam and 1 site in Ethiopia
Over 400 participants trained
72 Trainers trained who have assisted with courses

Challenges and Solutions in Trauma Program Development

Honing focus on trauma

- Select a trauma champion or trauma committee

Cost of resources and education

- Many basic trauma stabilization 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

We successfully manage our trauma patient and use our experience to build best practice!

- Build up your resources and work force
- Establish trauma champion, continuing education
- Use your network
- Remember our goal – best care of any trauma patient presenting to our facility



Pneumomediastinum After Blunt Trauma

Kağan Solmazipek¹, Özgür Söğüt¹

¹University of Health Sciences, Haseki Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

Pneumomediastinum After Blunt Trauma

Background and aim

Pneumomediastinum (PM) is the condition of free air images in the mediastinal region, either spontaneously or due to an underlying cause such as trauma or surgical procedure. Although the most common source of free air is alveolar rupture, it can also originate from the tracheobronchial system, esophagus and pharynx. It should be kept in mind in the differential diagnosis, especially in young patients and trauma patients who present to the emergency department with sudden onset of chest pain or shortness of breath. Chest radiography is one of the radiological imaging methods used in diagnosis. Thorax computerized tomography (CT) is used as the gold standard diagnostic method in cases that cannot be detected by radiography or to evaluate the etiology of PM. When PM is detected, the patient must be hospitalized for observation and follow-up. Pneumomediastinum cases that do not have a serious underlying pathological condition usually regress spontaneously with medical treatment methods (oxygen, analgesic drugs and rest). In long-term cases, further examination and invasive procedures may be required. This case aims to draw attention to the differential diagnosis and treatment of Pneumomediastinum, which is rarely seen in the emergency department.

Case Report

A 20-year-old female patient presented to the emergency department (ED) with the complaint of falling down the stairs after near syncope. The patient's vital signs at the admission were: TA 115/80 mmHg, Pulse: 112 beats/min, sPO₂: 98. During the examination, GCS 15 was observed in an oriented and cooperative manner. No obvious lesion was seen on primary examination. Tenderness was detected in the right and left shoulders and tenderness in the thoracolumbar vertebra. The patient's ECG showed sinus tachycardia. Normal sinus rhythm was observed in the follow-up control ECG. No acute pathology was detected in the patient's laboratory tests. Acute neurological events and acute cardiovascular pathologies were excluded in the laboratory tests, radiography and tomography taken for the etiology of syncope and trauma pathologies. Pneumomediastinum was detected in the patient's thorax CT (Image 1). Under close monitoring, respiratory rate was 11 per minute and the sPO₂ was 98 in room air. Since we do not have a Thoracic Surgery clinic in our hospital, the patient was consulted with the General Surgery clinic. The General Surgery clinic interned the patient for close follow-up. During the patient's ward follow-up, it was observed that the pneumomediastinum area had spontaneously regressed and there was no need for further intervention, and the patient was discharged.

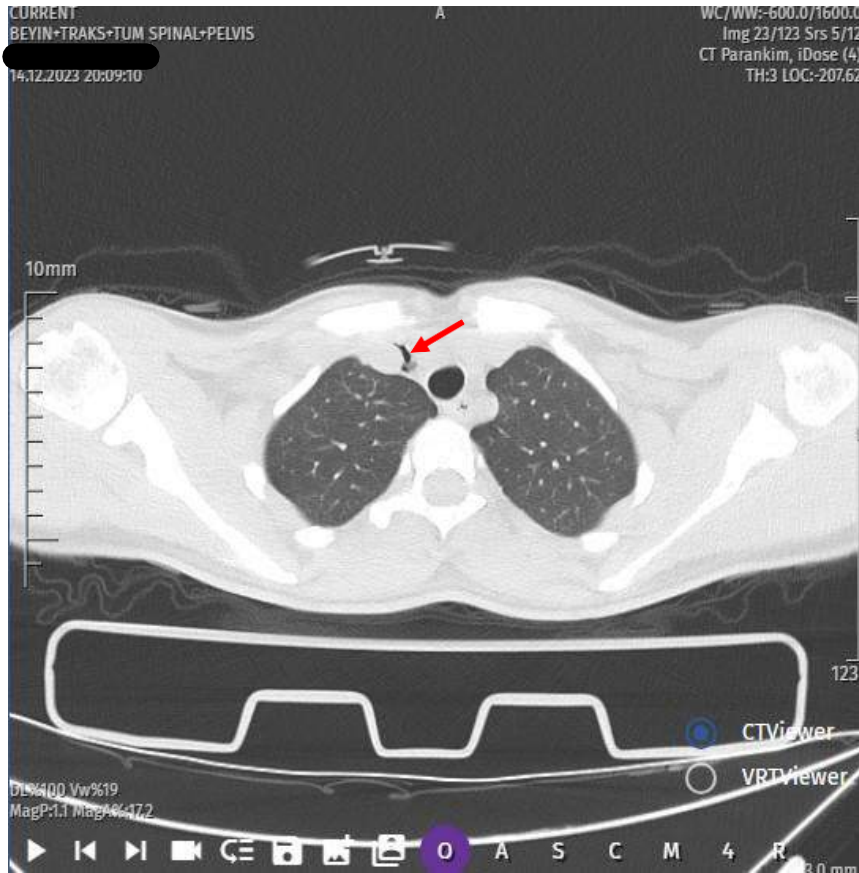


Image 1 : CT image of the patient.

Discussion and Conclusions

Pneumomediastinum (PM) is the presence of free air in the mediastinal area. Another definition is mediastinal emphysema (1,2). Although it is a rare disease and is often seen at young ages, a study reported its incidence as 1/25,000 between the ages of 5-35 (3). It has been reported more frequently in the male population(4,5). Pnomomediastinium is a condition that we encounter more frequently in major thoracic traumas, but is also rarely observed in isolated traumas or low-energy traumas, it can also occur spontaneously. It usually has a good prognosis, but mediastinitis is one of the fatal complications of PM (6). Although it is not a disease with a high mortality rate, PM is an important disease that should be kept in mind in differential diagnoses in the ED.



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A High-flow nasal cannula versus Noninvasive ventilation in acute exacerbations of Chronic obstructive pulmonary disease

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Keywords: COPD exacerbations; efficacy; High-flow nasal cannula; Noninvasive ventilation; safety

Introduction

High-flow nasal cannula (HFNC) oxygen therapy is a novel noninvasive respiratory support technique that has several advantages over traditional methods. It delivers heated humidified oxygen, which can reduce the arterial carbon dioxide pressure (PaCO₂) and allows clinicians to adjust the flow rate and oxygen concentration separately to avoid the respiratory depression associated with high oxygen levels [5]. A meta-analysis of six randomized controlled trials involving 525 COPD patients revealed that HFNC significantly reduces PaCO₂ levels and hospital stay durations compared to NIV [6]. In addition, a prospective randomized controlled trial of 200 COPD patients found that HFNC reduces acute exacerbations, hospital admissions, and symptoms in patients with COPD with hypoxic insufficiency [7]. Moreover, HFNC improves respiratory effort and breathing patterns in patients with acute hypoxemic respiratory failure compared to traditional oxygen therapy [8, 9]. However, the evidence supporting its effectiveness in hypercapnic respiratory failure remains insufficient. Furthermore, there is ongoing discussion of the optimal flow rate during HFNC therapy in patients with acute COPD exacerbations [4].

We investigated the efficacy and safety of HFNC at different flow rates compared to NIV in patients presenting to the emergency department (ED) with acute exacerbations of COPD who did not respond adequately to bronchodilator therapy and continued to exhibit hypercapnic respiratory failure. Specifically, we tested the hypothesis that HFNC would be more effective at reducing PaCO₂ levels and hospital stay duration and would be associated with greater patient comfort than NIV.

Methods

This prospective, randomized, single-blind, single-center study included 137 consecutive patients admitted to the ED for acute exacerbations of COPD who suffer from hypercapnic respiratory failure between September 2023 and February 2024. All patients presenting to the ED with COPD exacerbation received prompt treatment with an inhaled short-acting beta-agonist. Additionally, each patient was administered 40 mg of intravenous prednisone and a proton pump inhibitor as part of the standardized treatment protocol. Patients who did not respond to bronchodilator therapy were included in the study.

The patients were divided randomly into one of three study groups: NIV, HFNC-30, and HFNC-50. The NIV group received bi-level positive airway pressure, while the HFNC-30 and HFNC-50 groups received HFNC therapy at flow rates of 30 and 50 L/min, respectively.

During NIV, the tidal volume was set to 6–8 mL/kg, positive expiratory end pressure (PEEP) to 3–5 cm H₂O, and pressure support ventilation (PSV) to 8–12 cm H₂O by a clinician with 8 years of experience. To reduce potential bias, the clinician was blinded to the null hypothesis. These settings were not changed throughout the study. During HFNC, the humidifier was set to an open position, the heated air temperature was maintained at 37°C, and the FiO₂ was adjusted to maintain an oxygen saturation (SpO₂) measured via pulse oximetry of at least 92%. These settings were set and maintained until the end of the study protocol by the same experienced clinician. Patients in Group HFNC-30 received HFNC therapy at a flow rate of 30 L/min while those in Group HFNC-50 received it at 50 L/min.

We collected patient data, including demographic characteristics (age and sex), vital signs upon admission (systolic blood pressure [SBP], heart rate [HR], respiratory rate [RR], and SpO₂), complaints and symptoms upon admission, comorbidities (e.g., hypertension, diabetes mellitus, coronary artery disease), initial arterial blood gas parameters (e.g., pH, PaCO₂, lactate, and bicarbonate), length of stay, ED revisits, patient satisfaction, intubation status, and clinical outcomes (hospitalization, admission to the intensive care unit [ICU], or 28-day mortality). The medical condition and clinical outcomes of patients discharged from the hospital within 28 days were followed up through the national digital registration healthcare database established by the Turkish Ministry of Health (e-nabız®, Türkiye).

Changes in arterial blood gas parameters (e.g., ΔpH, ΔPaCO₂, Δlactate, and Δbicarbonate) before treatment vs. 30, 60, and 120 min after treatment were recorded using a pre-prepared case data form. Post-treatment patient satisfaction was assessed using a 5-point scale (1 lowest; 5 highest, Figure 1).



Results

Table 1 presents the demographic and clinical characteristics of the 137 participants (47, 44, and 46 in the NIV, HFNC-30, and HFNC-50 groups, respectively), comprising 90 males and 47 females, with a mean age of 68.1 ± 10.5 years.

Table 1. Demographic and Clinical Characteristics of the Patient Groups

	NIV	HFNC-30	HFNC-50	
Characteristic	(N = 47)	(N = 44)	(N = 46)	p*
Demographic characteristics				
Age in years, mean $\pm$ SD	68.8 $\pm$ 10.5	67.7 $\pm$ 9.7	67.6 $\pm$ 11.4	0.963
Sex, male/female	31/16	29/15	30/16	0.997
Comorbidities, n (%)				
Hypertension	15 (31.91)	13 (29.55)	14 (30.43)	0.970
Diabetes mellitus	8 (17.02)	9 (20.45)	10 (21.74)	0.834
Coronary artery disease	10 (21.28)	8 (18.18)	9 (19.57)	0.933
Vital signs, mean $\pm$ SD				
Systolic blood pressure (mmHg)	134.26 $\pm$ 17.88	136.70 $\pm$ 14.86	135.76 $\pm$ 17.35	0.764
Heart rate (beats/min)	89.00 $\pm$ 15.82	88.32 $\pm$ 16.22	90.57 $\pm$ 17.88	0.806
Respiratory rate (breaths/min)	27.94 $\pm$ 3.28	29.25 $\pm$ 2.77	28.78 $\pm$ 2.77	0.180
Peripheral oxygen saturation (%)	77.47 $\pm$ 5.56	79.25 $\pm$ 6.53	76.71 $\pm$ 5.99	0.159
Arterial blood gas values on admission				
pH, mean $\pm$ SD	7.38 $\pm$ 0.04	7.32 $\pm$ 0.03	7.30 $\pm$ 0.04	0.067
PaCO ₂ in mmHg, mean $\pm$ SD	40.81 $\pm$ 10.81	61.51 $\pm$ 9.03	62.29 $\pm$ 9.87	0.372
Lactate in mmol/L, mean $\pm$ SD	1.02 $\pm$ 0.99	1.80 $\pm$ 0.59	1.94 $\pm$ 0.65	0.616
Bicarbonate in mmol/L, mean $\pm$ SD	26.61 $\pm$ 3.80	26.85 $\pm$ 3.00	26.17 $\pm$ 3.87	0.507
Clinical outcomes				
Discharge, n (%)	19 (40.42)	29 (65.91)	30 (65.21)	0.018
Ward admission, n (%)	10 (21.28)	6 (13.64)	7 (15.22)	0.585
ICU admission, n (%)	14 (29.79)	8 (18.18)	9 (19.56)	0.347
28-day mortality, n (%)	6 (12.76)	4 (9.09)	4 (8.69)	0.775

Data are presented as the number (n) and percentage (%) or mean $\pm$ standard deviation (SD). *The independent samples t-test, Kruskal–Wallis test, and Mann–Whitney U-test were used to analyze quantitative independent data. The chi-square test was used to analyze qualitative independent data.

NIV, patients received noninvasive mechanical ventilation; HFNC, high-flow nasal cannula, HFNC-30/HFNC-50 patients received HFNC therapy at a flow rate of 30/50 L/min. ICU, intensive care unit

Table 2 compares the changes in blood gas values at 30, 60, and 120 min relative to baseline in the treatment

groups.

Table 2. Comparison of the Changes in Blood Gas Values at 30, 60, and 120 min Relative to Baseline in the Treatment Groups

Groups	30 min p*	60 min p*	120 min p*
NIV			
ΔpH	0.001	0.011	<0.001
ΔPaCO ₂ , mmHg	0.001	0.019	<0.001
Δlactate, mmol/L	0.126	0.033	<0.001
Δbicarbonate, mmol/L	0.210	0.069	0.082
HFNC-30			
ΔpH	<0.001	<0.001	<0.001
ΔPaCO ₂ , mmHg	<0.001	<0.001	<0.001
Δlactate, mmol/L	0.024	0.197	0.648
Δbicarbonate, mmol/L	0.153	0.182	0.218
HFNC-50			
ΔpH	<0.001	<0.001	<0.001
ΔPaCO ₂ , mmHg	<0.001	<0.001	<0.001
Δlactate, mmol/L	0.008	0.167	0.257
Δbicarbonate, mmol/L	0.013	0.022	0.219

Note: Data are presented as the mean ± standard deviation (SD) and delta (Δ). *The Wilcoxon test was used to analyze quantitative independent data. NIV, patients received noninvasive mechanical ventilation; HFNC-30/HFNC-50, patients received HFNC therapy at a flow rate of 30/50 L/min

A significant increase in the mean pH and a concomitant reduction in the mean PaCO₂ were observed in all three treatment groups at 30, 60, and 120 min. While the mean lactate levels in the NIV group did not significantly differ from baseline to 30 min, they significantly decreased at 60 and 120 min. In both the HFNC-30 and HFNC-50 groups, the mean lactate levels were significantly lower at 30 min than at baseline but no significant differences were observed at 60 and 120 min in either group. In addition, the mean bicarbonate levels significantly decreased at 30 and 60 min compared to baseline in the HFNC-50 group.

Table 3 compares ED revisits, patient intubation status, length of stay, and patient satisfaction after treatment among the groups.

Table 3. Comparative Analysis of Several Outcome Measures among the Treatment Groups and Patient Satisfaction after Treatment.

Outcome	NIV	HFNC-30	HFNC-50	p*
Emergency department revisits, n (%)	11 (23.40)	8 (18.18)	5 (19.56)	0.813
Intubation status, n (%)	10 (21.28)	5 (11.36)	0 (13.04)	0.368
Length of stay in days, mean ± SD	6.04 ± 2.98	4.61 ± 1.61	4.81 ± 1.91	0.357
Patient satisfaction, mean ± SD	2.91 ± 1.25	3.84 ± 1.12	3.37 ± 1.02	0.002

Data are presented as the number (n) and percentage (%) or mean ± standard deviation (SD). *The independent samples t-test, Kruskal–Wallis test, and Mann–Whitney U-test were used to analyze quantitative independent data. The chi-square test was used to analyze qualitative independent data.

NIV, patients received noninvasive mechanical ventilation; HFNC, high-flow nasal cannula; HFNC-30/HFNC-50, patients received HFNC therapy at a flow rate of 30/50 L/min.

There were no significant differences in the number of ED revisits, intubation rates, or length of



stay among the treatment groups. However, the HFNC-30 group had a significantly higher mean patient satisfaction score than the HFNC-50 and NIV groups.

Discussion

This study compared the efficacy and safety of HFNC at two different flow rates with NIV in patients experiencing COPD exacerbations. Although all three treatment groups experienced a significant reduction in mean PaCO₂ at 30, 60, and 120 min, the ΔPaCO₂ at 60 min was significantly higher in the HFNC-30 group compared to the NIV group.

A comparison of HFNC and NIV in COPD exacerbations noted significant improvements in respiratory parameters and clinical outcomes in both treatment groups and also reported that HFNC increased the pH and decreased PaCO₂ [13]. We also found that both NIV and HFNC improved pH and reduced PaCO₂. In COPD exacerbations, respiratory acidosis frequently occurs due to CO₂ retention [14]. The goal of therapy is to improve ventilation and alleviate respiratory acidosis. This is primarily achieved by improving CO₂ elimination.

A meta-analysis that evaluated seven randomized controlled trials involving 481 COPD patients found that NIV is not superior to HFNC at decreasing PaCO₂ [15]. Also, in a randomized controlled trial comparing HFNC with NIV, Marjanovic et al. found that PaCO₂ and pH did not differ between groups at 1 hour after

treatment [16]. Similarly, we found that all treatment groups had comparable efficacy at reducing PaCO₂ levels at 30 and 120 min. However, HFNC-30 was superior to NIV in reducing PaCO₂ at 60 minutes, which contrasts with prior studies reporting no superiority of HFNC over NIV in terms of PaCO₂ reduction [15, 16]. This may be attributed to the more homogeneous patient population in our study, which focused specifically on patients presenting to the ED with COPD exacerbations, unlike previous studies that included patients followed in the ICU or those with hypercapnic respiratory failure due to various causes, such as acute pulmonary edema, acute heart failure, or post-extubating respiratory distress. We found no significant differences in the number of ED revisits, intubation rates, length of stay, or 28-day mortality rates among the patient groups receiving HFNC-30, HFNC-50, and NIV therapies.

In conclusion, our findings indicate that HFNC at a flow rate of 30 L/min was superior to NIV at reducing PaCO₂ levels at 60 min. The ED discharge rate was higher in patients who received HFNC at 30 L/min compared to those who received NIV, and no significant differences were observed between treatment groups in terms of ED revisits, intubation rates, length of stay, or 28-day mortality rates. In addition, patients reported greater satisfaction with HFNC at 30 L/min compared to NIV or HFNC at 50 L/min. HFNC at 30 L/min is an effective preferred therapy in some scenarios, providing better patient satisfaction and comparable clinical outcomes to NIV.

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Predictive value of NT-proBNP for major adverse cardiovascular events within a 6-month period in patients with acute coronary syndrome

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Keywords: NT-proBNP; MACEs; GRACE score; acute coronary syndrome

Introduction

Cardiac troponins (cTn) are widely recognized as the gold standard for diagnosing and stratifying risk in acute coronary syndromes (ACS). However, elevated cTn levels are also observed in non-ACS conditions, which can complicate accurate diagnosis and treatment decisions [1]. This highlights the need for additional biomarkers that offer rapid and reliable assessment in ACS patients.

Current clinical guidelines recommend the use of N-terminal pro-B-type natriuretic peptide (NT-proBNP) as a prognostic tool in ACS. Despite its demonstrated utility, an effective and straightforward risk model integrating NT-proBNP remains lacking [2, 3]. Sole reliance on a single biomarker, such as high-sensitivity cardiac troponin (hs-cTn), can sometimes be misleading. Therefore, a multi-biomarker approach, combining complementary biomarkers, may enhance risk stratification and prognostication in ACS.

This study aims to evaluate the predictive utility of admission hs-cTnT and NT-proBNP levels for 6-month major adverse cardiovascular events (MACEs) in ACS patients who underwent percutaneous coronary intervention (PCI). It also examines the association between MACEs and specific ACS subtypes.

Methods

Study design and setting

This prospective study was conducted between September 2023 and February 2024, enrolling 241 adult patients with ACS. Patient demographics, clinical profiles, GRACE scores, and hs-cTnT and NT-proBNP levels were compared between MACE-positive and MACE-negative groups over a 6-month follow-up period.



Outcomes

The primary aim was to evaluate the ability of NT-proBNP levels at admission to predict MACEs over 6 months in ACS patients. The secondary goal was to analyze the relationship between ACS subtypes and MACE incidence.

Study population and sampling

Adults aged 18 years and older diagnosed with ACS in the emergency department (ED) and undergoing PCI within 24 hours were included. Exclusion criteria were:

- Age below 18 years.
- Absence of vascular lesions identified via PCI.
- Structural or infective cardiac conditions (e.g., myocarditis, pericarditis).
- Pre-existing chronic heart failure with LVEF < 40% or Killip class 3–4.
- Chronic kidney or liver disease, active malignancy, or recent major trauma or surgery within the last month.

Results

The study included 241 ACS patients (81.3% male, 53% female), with a mean age of 57.9 ± 13.2 years. Hypertension and diabetes mellitus were each reported in 60.2% of patients, while 36.1% had a history of CAD. At presentation, 55.2% had STEMI, 33.6% had NSTEMI, and 11.2% had USAP. During the 6-month follow-up, 16.5% revisited the ED with heart failure, 28.6% had a nonfatal myocardial infarction, and 4.9% suffered a nonfatal ischemic stroke. The overall mortality rate was 8.7%, and MACEs occurred in 43.2% of patients (Table 1).

Table 1. Comparative analysis of demographic and clinical characteristics in patients with or without



MACEs.

Characteristic	MACE-negative (n = 137)	MACE-positive (n = 104)	P-value
Age in years, mean ± SD	53.2 ± 12.5	64.2 ± 11.4	< 0.001
Sex, n (%)			
Male	124 (90.5)	72 (69.2)	< 0.001
Female	13 (9.5)	32 (30.8)	
Smoking, n (%)	79 (57.7)	44 (42.3)	0.018
ACS subtype, n (%)			
STEMI	77 (56.2)	56 (53.8)	0.715
NSTEMI	37 (27.0)	44 (42.3)	0.013
USAP	23 (16.8)	4 (3.8)	0.002
Comorbidity, n (%)			
Hypertension	64 (46.7)	81 (77.9)	< 0.001
Diabetes mellitus	31 (22.6)	49 (47.1)	< 0.001
Coronary artery disease	33 (24.1)	54 (51.9)	< 0.001
Laboratory parameters, mean ± SD			
hs-cTnT (ng/L)	87.1 ± 279.7	318.0 ± 629.9	< 0.001
NT-proBNP (pg/mL)	129.2 ± 158.8	2622.3 ± 4787.2	< 0.001
LVEF, mean ± SD			
At admission	56.4 ± 3.7	51.5 ± 6.1	< 0.001
Six-month follow-up	55.4 ± 4.3	43.8 ± 8.2	< 0.001
GRACE score, mean ± SD	87.2 ± 23.8	130.6 ± 29.3	< 0.001



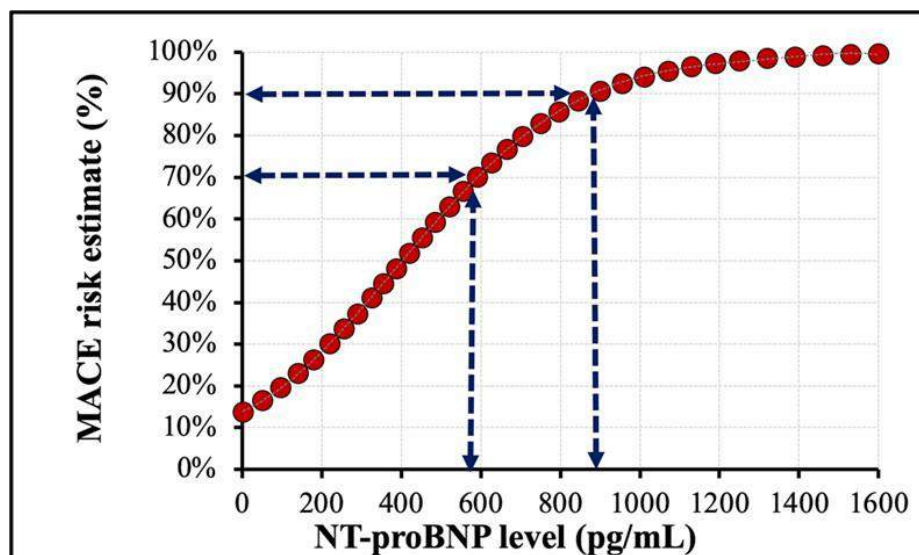
Significant differences were observed between MACE-positive and MACE-negative groups. MACE-positive patients were older, had higher smoking rates, and were more likely to have hypertension, DM, and CAD. NSTEMI incidence was significantly higher, and USAP incidence was lower in the MACE-positive group. hs-cTnT, NT-proBNP levels, and GRACE scores were higher, while LVEF was lower at both admission and follow-up in this group (Table 2).

Table 2. Independent predictors of MACEs identified in univariate and multivariate logistic regression analysis.

Characteristic	Univariate Model					Multivariate Model				
	OR	%95 CI			P-value	OR	%95 CI			P-value
Age	1.078	1.051	-	1.105	< 0.001	0.894	0.833	-	0.960	0.002
Sex	4.239	2.090	-	8.597	< 0.001					
Smoking	0.538	0.321	-	0.902	0.019					
Hypertension	4.017	2.267	-	7.117	< 0.001					
Diabetes mellitus	3.046	1.748	-	5.308	< 0.001					
Coronary artery disease	3.404	1.966	-	5.893	< 0.001	4.863	2.055	-	11.506	< 0.001
hs-cTnT	1.002	1.001	-	1.003	0.002					
NT-proBNP	1.005	1.003	-	1.006	< 0.001	1.003	1.002	-	1.005	< 0.001
GRACE score	1.062	1.046	-	1.079	< 0.001	1.097	1.055	-	1.141	< 0.001

Multivariate regression identified age, CAD, NT-proBNP levels, and GRACE scores as independent predictors of MACEs. An NT-proBNP level of 250 pg/mL showed 73.1% sensitivity, 88.3% specificity, a positive predictive value of 82.6%, and a negative predictive value of 81.2% for MACEs (AUC 0.847) (Table 3). Patients with NT-proBNP > 250 pg/mL had significantly higher mortality (18 deaths vs. 3, $p < 0.001$). Increasing NT-proBNP levels were associated with higher MACE risks, with levels of 600 pg/mL and 900 pg/mL corresponding to 70% and 90% risks, respectively (Figure 1).

Figure 1. Estimated MACE risk based on the NT-proBNP level



Discussion

Elevated NT-proBNP levels have been extensively linked to MACEs in ACS patients, serving as a reliable prognostic biomarker for recurrent ischemic events and heart failure. In this study, NT-proBNP levels at admission demonstrated significant sensitivity and specificity in predicting MACEs [4, 5, 6]. Unlike cTn, which reflects cardiomyocyte necrosis, NT-proBNP indicates myocardial stress, making it a superior early marker [5, 7, 14].

Combining NT-proBNP with hs-cTnT improves the accuracy of risk prediction in ACS, particularly in NSTEMI and unstable angina (USAP) subtypes, where elevated NT-proBNP levels are associated with higher MACE risks [7, 8]. The study also found higher MACE rates in NSTEMI patients, likely due to older age and greater prevalence of comorbidities compared to STEMI patients [9, 10]. While STEMI patients experience higher short-term risks, their long-term prognosis is better due to more effective guideline-based treatments [10, 11].

The lack of significant differences between MACE-positive and MACE-negative STEMI patients in this study may be attributed to the medium-term follow-up duration and the absence of data on symptom onset [11].

Conclusion

This study confirms that NT-proBNP levels at ED admission are robust predictors of short-term MACEs across all ACS subtypes, independent of other risk factors and hs-cTnT levels. Predictors such as advanced age, CAD, elevated NT-proBNP levels, and higher GRACE scores can inform clinical decision-making for hospital admission. Integrating NT-proBNP data with GRACE scores during admission may enhance risk stratification and improve prognostication in ACS patients.

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3D USG KULLANIM ALANLARI

Doç. Dr. Abdullah Algın

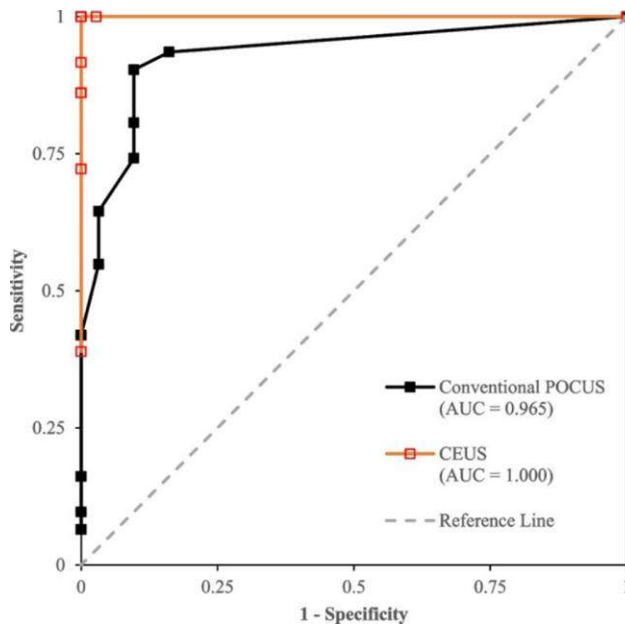
Sağlık Bilimleri Üniversitesi, Ümraniye Eğitim ve Araştırma Hastanesi Acil Tıp Kliniği

3D Ultrasonografi (USG): Geleneksel 2D USG'nin ötesinde, hacimsel görüntüler elde ederek daha ayrıntılı anatomik incelemelere olanak tanır

Hızlı tanı koyma ve kritik durumlarda hızlı müdahale için kullanılır.

Kullanım Alanları

- 1. Travma Değerlendirmesi:** Travma hastalarında hızlı ve etkili değerlendirme kritik öneme sahiptir. **Hızlı Vücut İncelemesi (FAST – Focused Assessment with Sonography for Trauma)**, özellikle intra-abdominal kanama ve organ hasarını tespit etmek için yaygın olarak kullanılmaktadır. 2D ultrasonografiye kıyasla, **3D ultrasonografi**, daha kapsamlı görüntüler sunarak bu patolojilerin daha net ve güvenilir bir şekilde değerlendirilmesine olanak tanır.



Discussion

To our knowledge, this is the first systematic review and meta-analysis examining and directly comparing the performance of contrast to conventional ultrasound diagnostic tests in abdominal trauma. While both modalities performed equally well with identifying abdominal free fluid, CEUS performed significantly better than conventional ultrasound at ruling out every solid organ injury of interest in abdominal trauma. Our results suggest that in a direct comparison, CEUS is superior to conventional ultrasound as the initial screening test of patients with abdominal trauma and raises the question as to whether it should be integrated as common practice when performing the FAST examination. One of the aims of this systematic review was to assess whether CEUS can be the next logical progression of clinical ultrasound in the abdominal trauma setting.

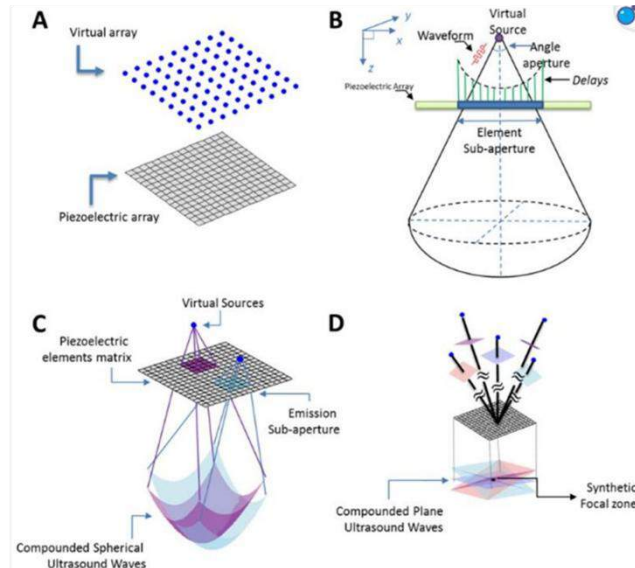
BMC Emergency Medicine

► BMC Emerg Med. 2023 Jan 27;23:8. doi: 10.1186/s12873-023-00771-4

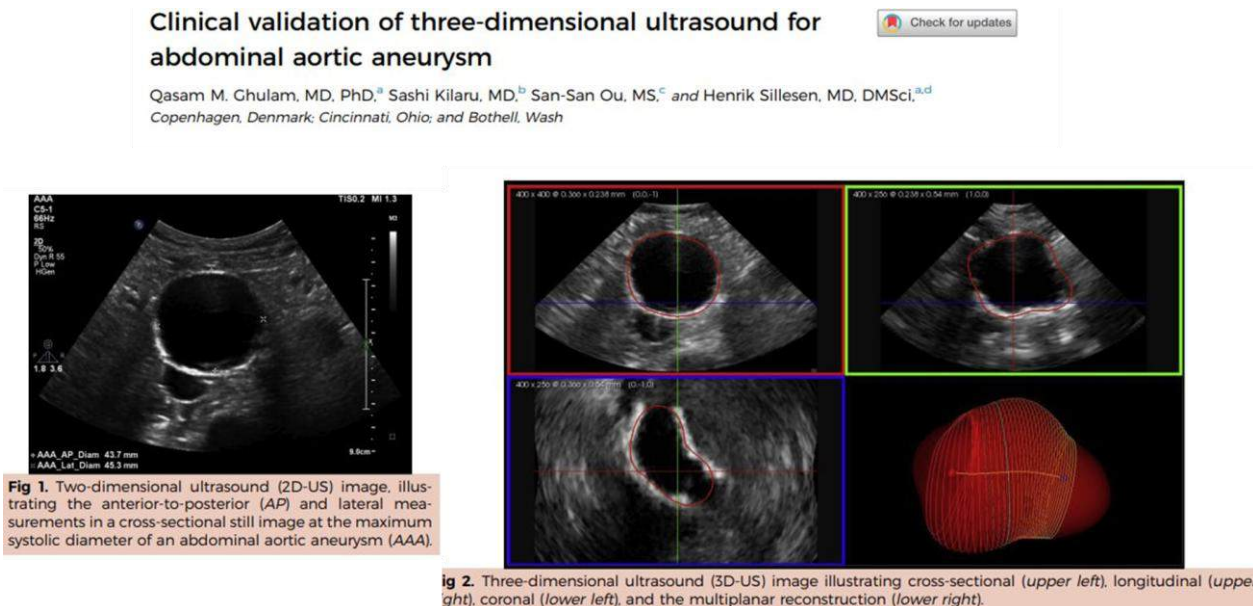
Is it time to re-think FAST? A systematic review and meta-analysis of Contrast-Enhanced Ultrasound (CEUS) and conventional ultrasound for initial assessment of abdominal trauma

Bayu Sutrisno^{1,2*}, Matthew Kessel¹, Dorian Alexander¹, Eajot Grevat¹

A protocol is proposed to acquire a tomographic ultrasound (US) scan of the musculoskeletal (MSK) anatomy in the rotator cuff region. Current clinical US imaging techniques are hindered by occlusions and a narrow field of view and require expert acquisition and interpretation. There is limited literature on 3D US image registration of the shoulder or volumetric reconstruction of the full shoulder complex. We believe that a clinically accurate US volume reconstruction of the entire shoulder can aid in pre-operative surgical planning and reduce the complexity of US interpretation. The



2. **Abdominal Ağrı:** Akut safra kesesi iltihabı (kolesistit), pankreatit gibi durumların hızlı teşhisinde yardımcı olabilir. 3D USG ile taş, kist veya vasküler anomalilerin daha ayrıntılı görünümü sağlanır.





3. **Kardiyak Nedenler:** Ekokardiyografi ile kalp yapısının üç boyutlu görüntülenmesi sayesinde acil kardiyak olaylarda hızlı tanı imkanı sunar. Özellikle kalp kapakçığı hastalıkları, ventrikül fonksiyonları gibi durumlarda detaylı inceleme sağlar.

Multimodality Imaging of the Right Ventricle

[Christiane M Abouzeid](#)¹, [Tara Shah](#)¹, [Ansh Johri](#)¹, [Jonathan W Weinsaft](#)¹, [Jiwon Kim](#)¹

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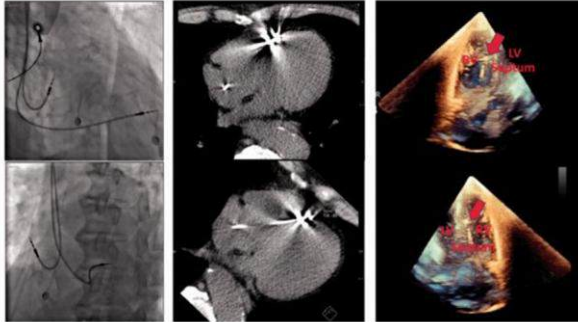
PMCID: PMC6607848 NIHMSID: NIHMS973312 PMID: 28948501

	CMR	CT	2D Echo	3D Echo
Imaging Variables				
RV Systolic Function				
Global Assessment	✓	✓✓	✓✓	✓✓
Regional Assessment	✓✓	✓✓	✓	✓✓
RV Volumes	✓✓	✓✓	-	✓✓
Tissue Characterization (e.g. fat)	✓✓	✓	-	-
RV Hemodynamics (e.g. PA pressure)	-	-	✓✓	-
Accessibility				
Availability/portability	-	-	✓✓	✓✓
Speed of Exam	-	✓✓	✓✓	✓
Contrast/Radiation Exposure	-	✓✓	-	-

• J Int Med Res. 2021 Mar 18;49(3):0300060521996159. doi: 10.1177/0300060521996159

Localization of right ventricular non-apical lead position: comparison of three-dimensional echocardiography, computed tomography, and fluoroscopic imaging

Yung-Lung Chen^{1,2}, Hui-Ting Wang³, Huang-Chung Chen¹, Han-Tan Chai¹, Yi-Wei Lee^{4,5}, Wen-Hao Liu^{1,7,8}



Abstract

Objective

Right ventricular (RV) septal pacing is considered a better pacing procedure compared with traditional apical pacing. This study aimed to investigate agreement among computed tomography (CT), three-dimensional echocardiography (3D-echo), and fluoroscopy for evaluating the tip of the RV pacing lead in the non-apical position in patients with permanent pacemaker implantation.

Methods

Fifty-four patients were prospectively enrolled. Data on patients' characteristics and imaging findings were analyzed. The agreement rate in distinguishing the RV septal lead position among the three imaging modalities was determined.

Results

Thirty-three (61%) patients were men and the median age was 76 years. Overall, the agreement rate among the three imaging modalities was 87% (47/54; Kappa ratio: 0.734). The agreement of 3D-echo compared with thoracic CT (Kappa ratio: 0.893) was better than that for thoracic CT and fluoroscopy (Kappa ratio: 0.658). Agreement between fluoroscopy and 3D-echo was lowest (Kappa ratio: 0.632).

Conclusions

Agreement in evaluating the position of the septal lead between thoracic CT and 3D-echo is better than that between other imaging modalities. Our findings indicate that 3D-echo imaging might be the best imaging tool for defining the tip of the RV non-apical lead position and be useful for guiding positioning of the RV lead.

• Mædica (Bucur). 2014 Jun;9(2):189-193.

Acute Heart Failure and a Pseudo Cystic Image in the Left Ventricle

Roxana C RIMBAS^{a,b,c}, Dragos VINERIANU^{a,b}

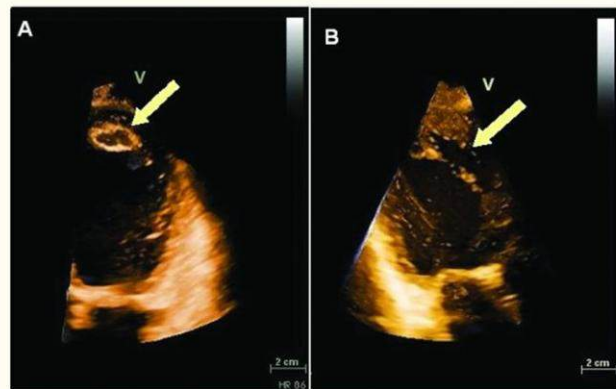
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Abstract

The association between acute heart failure (AHF) and cardiac tumor may change the short and long term management of both conditions. A 51-year-old man presented with signs of AHF. ECG showed sinus tachycardia and left ventricular (LV) hypertrophy. Chest x-Ray found dilated heart and pulmonary congestion. There were no significant changes in blood tests. Transthoracic echocardiography revealed chambers dilation, and LV ejection fraction (LVEF) of 17%. Unexpectedly, we found an apical 2/2 cm cystic image in the LV. This had a myocardium-like membrane, seen better in 3D echocardiography, suggestive for hydatidic cyst. Cerebral, thoracic, and abdomino-pelvic CT scan showed no hydatidic lesions. Anti-Echinococcus antibodies were negative. Initially the clinical challenge was the management of the tumor in a patient with AHF and dilated cardiomyopathy. He was treated for AHF and followed up for the cystic image. He exhibited significant improvement of the clinical status and LVEF (increased to 42%), with important cardiac reverse remodeling. Surprisingly, the apical cystic image disappeared. However, we found a hypertrophic aberrant cordae from apex to mid-septum, in the same position as the previous image. Thus, we believe that this cordae, by important remodeling and torsion generated the cystic image. This case highlights the importance of serial 2D and 3D echo examinations in patients with severely remodeled LV, and also with tumoral images.

Figure 2A, B. A. 4 chambers view from an apical transducer position in 3D echocardiography showed the apical cystic image, with very well define, myocardium-like membrane (yellow arrow); B. Modified 3 chambers view from an apical transducer position in 3D echocardiography after 1 month, showing a hypertrophic aberrant cordae in the apex of the LV (yellow arrow).



4.Yabancı Cisim Değerlendirmesi: 3D USG, cisimlerin yerini ve yapısını daha net bir şekilde göstererek yabancı cisim tespitini kolaylaştırır.

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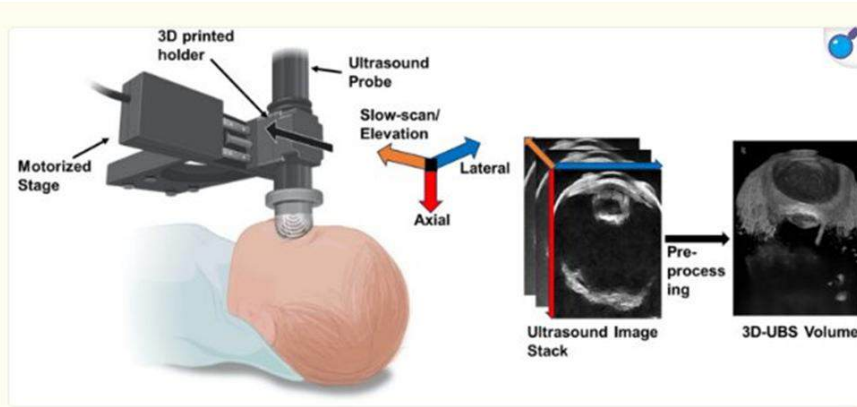
► Sci Rep. 2024 May 26;14:12011. doi: [10.1038/s41598-024-62362-y](https://doi.org/10.1038/s41598-024-62362-y)

Assessment of intraocular foreign body using high resolution 3D ultrasound imaging

Ahmed Tahseen Minhaz ^{1,✉}, Faruk H Orge ^{2,5}, David L Wilson ^{1,4}, Mahdi Bayat ³

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3D ophthalmic Ultrasound B-scan (3D-UBS) system. Ultrasound probe is translated across the eye using a motorized stage and surgical microscope (not shown) to acquire a 2D image stack along the slow scan direction. Images are pre-processed and converted into a 3D-UBS volume.



Fresh Frozen Plasma (FFP): Whom and When in the Emergency Department

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Fresh frozen plasma (FFP) plays a vital role in hemorrhage management in the emergency department. Appropriate indication, correct timing, and safe administration are essential for successful outcomes. Patient blood management aims to provide the right blood component at the right time while avoiding transfusion-related risks such as infection, alloimmunization, allergic reactions, and volume overload.

FFP is prepared by centrifuging whole blood within six hours of collection and freezing the plasma at -30°C . Each unit (about 200 mL) contains coagulation factors (II, V, VII, VIII, IX, X, XI), fibrinogen, albumin, protein C, protein S, and antithrombin III. It can be stored for up to one year and must be used within six hours after thawing. ABO compatibility is required, but Rh matching is unnecessary. Coagulation factor activity, especially factors V and VIII, decreases progressively after thawing.

The main indication for FFP is massive bleeding requiring multiple transfusions to prevent or correct coagulopathy. It is also used when specific factor concentrates are unavailable for congenital deficiencies or in warfarin-related bleeding with urgent intervention. FFP is indicated for patients with high INR undergoing invasive procedures, antithrombin III deficiency, severe protein-losing enteropathy in infants, C1 esterase inhibitor deficiency with angioedema, thrombotic thrombocytopenic purpura (TTP), hemolytic uremic syndrome (HUS), and sepsis-related coagulopathy. A 10–20 mL/kg dose increases factor levels by about 20%.

Timing is as critical as indication. In massive trauma or postoperative bleeding, FFP should be given early with other blood products. In patients with isolated INR elevation and no bleeding, vitamin K supplementation is preferred. FFP should not be used for volume replacement or nutritional purposes. It is contraindicated in heparin-induced bleeding, where antithrombin may worsen hemorrhage, and in specific factor deficiencies like hemophilia A, for which targeted therapy is available.

Complications include transfusion-related acute lung injury (TRALI), transfusion-associated circulatory overload (TACO), and allergic or anaphylactic reactions. TRALI causes severe hypoxemia, especially with repeated transfusions, while TACO develops with high-volume plasma in elderly or cardiac patients. Continuous monitoring during transfusion minimizes these risks.

In conclusion, FFP is a lifesaving but potentially risky therapy. Its rational use based on clinical and laboratory findings improves coagulopathy management and reduces unnecessary transfusions. Applying patient blood management principles ensures better timing, appropriate dosing, and improved outcomes.

Keywords: fresh frozen plasma, emergency medicine, transfusion, coagulopathy, patient blood management