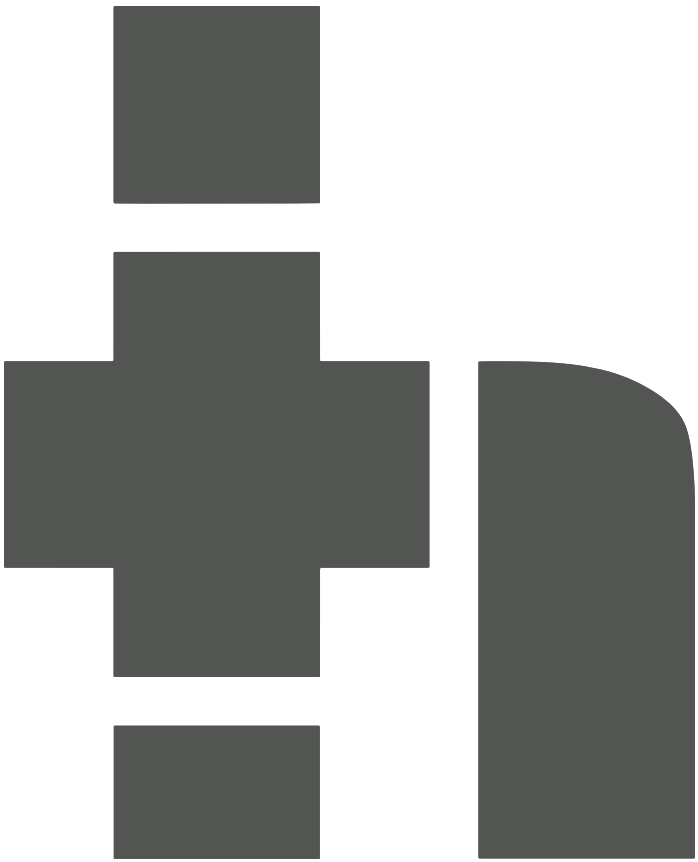
8th Congress of Emergency Medicine, March 22nd - 24th, 2024 Rijeka, Croatia : Abstract book

8th Congress of Emergency Medicine



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Welcome note

Dear colleagues and friends,

On behalf of the Organizing Committee, I am pleased to wish You a pleasant welcome to the 8th Congress of Emergency Medicine.

This Congress is organized by students for students and all those who wish to learn more about lifesaving skills. It is a project organized by the student association FOSS MEDRI in partnership with the Faculty of Medicine University of Rijeka, Clinical Hospital Center Rijeka, and the Emergency Medicine Institute of the Primorsko- Gorski kotar County. It consists of lectures, presentations of students' research papers, and practical workshops.

Since this Congress was founded, our main focus has been raising awareness of emergency medicine's importance. But, as we do every year we chose a second topic to better round up the Congress. This year we decided to put a bigger emphasis on science and, more importantly how the students' science is changing the world of medicine. Each year we get more and more applications for active participation, and this time was no exception. Additionally, for the first time, we have an outside lecturer who talks about the merger of medicine and science that awaits us in the future.

This year we have many additions to our organizing team, who brought fresh ideas and passion to the project. Ultimately, I want to thank and congratulate every team member for this giant undertaking we completed together. In the end, it was a long and winding road, but thank you to everyone who worked with us for the last three years.

For the last time, sincerely,

Marija Prekodravac
President of Organizing committee

-PROGRAMME-

FRIDAY, March 22nd, 2024

Faculty of Medicine, University of Rijeka

14:00 - 15:30 REGISTRATION

15:30 – 16:00 OPENING CEREMONY

16:00 – 16:10 GROUP PHOTO

16:10 – 16:50 PLENARY LECTURE

Transport of a life-threating patient
Senka Kajčić, MD

16:50 – 17:00 COFFEE BREAK

17:00 - 17:30 LECTURE

How (students') science changes the world
Professor Nina Pereza, MD

17:35 – 18:05 LECTURE

Improvement of processes in emergency medicine by applying the M-CULIS methodology
Professor Nedeljko Štefanić

18:10 – 19:30 POSTER SESSION

SATURAY, March 23rd, 2024

Faculty of Medicine, University of Rijeka

9:00 – 10:30 WORKSHOPS

I ECG Reading
II Workshop of Clinical Scenarios
III Urinary catheterization
IV Polytrauma management
V Airway management in pre-hospital emergency department
VI The wound management workshop

10:30 – 10:50 COFFEE BREAK

10:50 – 12:20 WORKSHOPSI-VI

12:20- 13:20 LUNCH

13:20 – 14:50 WORKSHOPS I-VI

14:50 – 15:10 COFFEE BREAK

15:10 – 17:30 ORAL PRESENTATIONS AND POSTER SESSION

21:00 ENTERTAINMENT PROGRAMME

SUNDAY, March 24th, 2024

Faculty of Medicine, University of Rijeka

9:00 – 10:30 WORKSHOPS I-VI

I ECG Reading
II Workshop of Clinical Scenarios
III Urinary catheterization
IV Polytrauma management
V Airway management in pre-hospital emergency department
VI The wound management workshop

10:30 – 10:50 COFFEE BREAK

10:50 – 12:20 WORKSHOPS I-VI

12:20- 13:20 LUNCH

13:20 – 14:50 WORKSHOPS I-VI

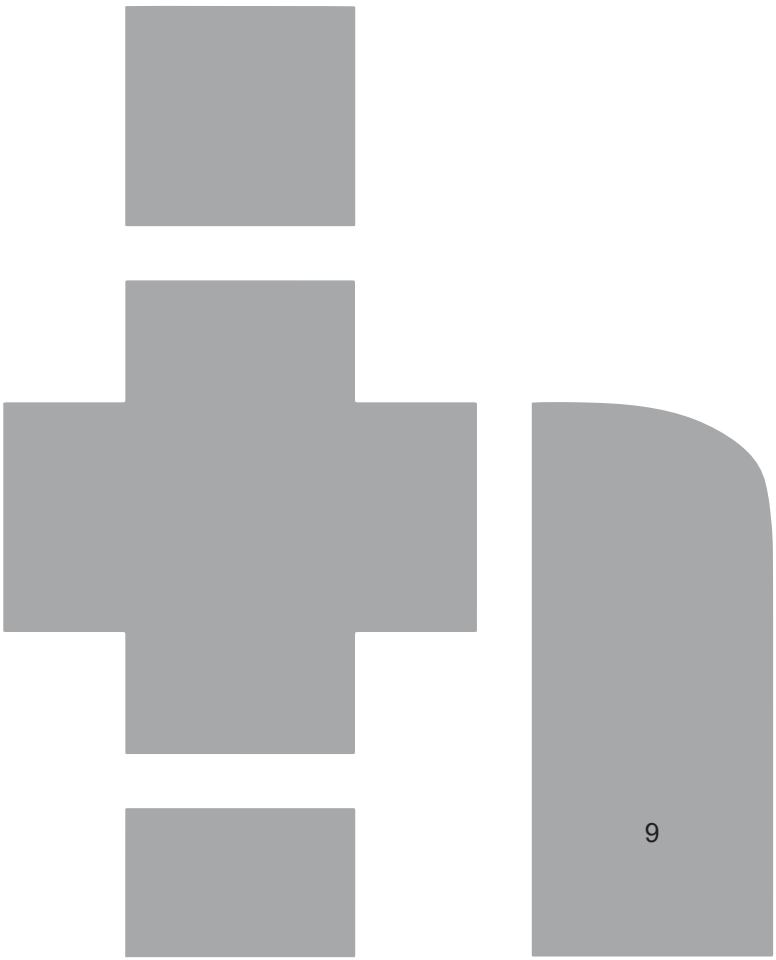
14:50 – 15:10 COFFEE BREAK

15:10 – 17:30 ORAL PRESENTATIONS AND POSTER SESSION

17:30 – 18:00 BREAK

18:00 – 18:20 WINNERS ANNOUNCEMENT AND CLOSING CEREMONY

PLENARY LECTURE



Transportation of a life-threatening patient

Senka Kajčić [1]

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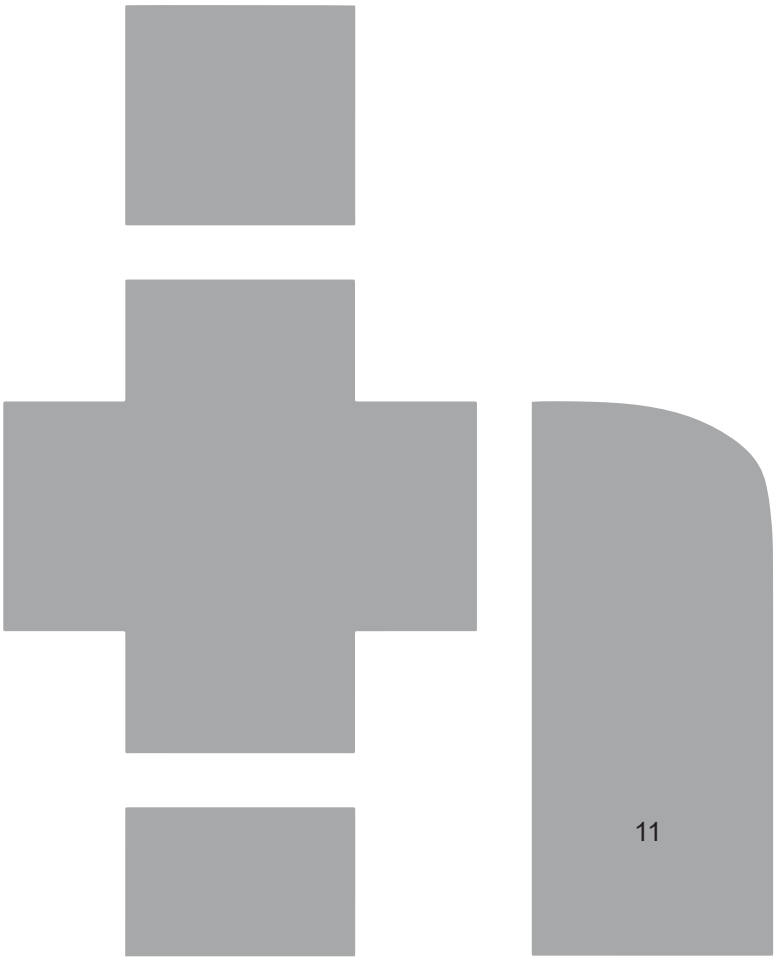
One of the main goals of an outpatient emergency medical service is to safely transport a patient in need to the hospital. Employees of the emergency medical service are faced with transporting life-threatening patients in different situations every day, no other emergency service transports such a large number of urgent, life-threatening patients. The basic rule of transporting life-threatening patients is to get the right patient to the right place at the right time to continue providing optimal health care. Regardless of the type of transport, it can last from a few minutes to several hours, and all of them require the same preparation, every patient must have continuous medical care during the transport. Transport of a life-threatening patient is recognized as one of the risk factors that contribute to a worse outcome and should be given significant attention. Well-planned and prepared transport reduces possible risks to an acceptable level, but never eliminates them completely. The duration of transport depends on the distance from the intervention site to the nearest healthcare facility where the patient can be provided with the best possible health care. Each transport of a life-threatening patient, i.e. a patient with acute coronary syndrome, or stroke, transport of a patient after cardiac arrest, or a patient with multiple injuries, from the place of intervention is a challenge in itself and takes place in uncontrollable conditions. Given the threat to their lives, there is not much time to plan and prepare the transport because minutes are often crucial in such transport. We try to get the patient to the hospital within the golden hour, which increases survival by 30-50 percent.

LECTURES



How (students') science changes the world

Nina Pereza [1,2]

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Although we are rarely aware, scientific research methodology lies deep in the foundations of the healthcare profession, in which everyday practice of each healthcare professional, including medical doctors, rests on the scientific way of thinking, including making evidence-based decisions derived from scientific research, as well as critical thinking about the applicability of the latest knowledge into routine practice. At the same time, the ability to popularize science, as the ability to use special communication skills to convey complex scientific information in a simple way to different target groups in the general public, is equally important. Therefore, this lecture aims to emphasize the necessity of introducing students to basic scientific research methodology and raise awareness of the importance of popularizing science from the earliest days of medical education. In addition, the six years of activities and experiences of the Student Section of the Medicina Fluminensis journal will be presented, the main aim of which is to support student scientific activities. Finally, specific examples of how these activities can change and associate not only the student world but also a much wider outside world will be presented in the lecture.

Improvement of processes in emergency medicine by applying the M-CULIS methodology

Nedeljko Štefanić [1]

[1] *Nestiom Improvement d.o.o., Zagreb, Croatia*

Based on the principles of Lean management and digitalization, M-CULIS enables process optimization and improvement, and together with artificial intelligence and machine learning algorithms, it can be an effective support for faster and more accurate diagnosis and decision-making in Emergency Medicine. By using innovative personal devices for monitoring medically significant body functions (temperature, heart function (ECG), blood oxygen level, etc.), relevant information is provided in real time, and with an integrated system of digitizing medical histories, it is possible to obtain a complete picture of an individual case (Personal Health Card) which speeds up and facilitates the analysis of symptoms, the identification of potential causes and the establishment of a preliminary diagnosis. This approach simplifies the cooperation between the patient, the call center, the ambulance and the emergency hospital admission, which increases the success and quality of the intervention. The proposed upgrade of the holistic digital system refers to the establishment of smart cities and the connection of the platform with traffic signals and the internal subsequent analysis of calls and cases in order to increase efficiency. Integrative medicine methods, such as various simple breathing techniques or other techniques, can increase the involvement of the patient and improve the resolution of emergency cases.

ORAL PRESENTATIONS

The diagnostic challenges of acute abdomen – a case report

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INTRODUCTION: Acute abdomen is a medical emergency characterized by sudden and severe abdominal pain, which requires prompt diagnosis and intervention. The accurate and timely diagnosis of acute abdomen is crucial for appropriate management and improved patient outcomes. However, the diagnostic process can sometimes be challenging, as certain imaging techniques may not immediately reveal the underlying cause of the symptoms. This case report highlights the importance of diagnostics in acute abdomen and emphasizes the significance of trusting the patient's subjective experiences

CASE PRESENTATION: A 44-year-old woman presented to the emergency department with complaints of abdominal pain, vomiting, and no bowel movement for the past three days. On physical examination, she exhibited hypotension, tachycardia, and a distended abdomen. The abdomen was tender on palpation and no peristaltic sounds were observed. A radiograph did not show any signs of pneumoperitoneum or ileus. However, considering the patient's evident pain and deteriorating condition, an emergency CT scan was performed. The CT scan revealed a diffuse pneumoperitoneum of 12mm, extending beyond the front abdominal wall, without any apparent site of perforation. Additionally, a significant amount of ascites and a few nodal peritoneal deposits were observed. Based on these findings, an immediate decision was made to take the patient to the operating room for further evaluation and intervention.

CONCLUSION: In cases where initial diagnostic tests, such as radiographs, fail to provide a definitive diagnosis, it is essential to trust the patient's experiences and consider alternative diagnostic modalities. This case report emphasizes the importance of a comprehensive diagnostic approach, which includes a thorough clinical evaluation, appropriate imaging studies, and prompt surgical intervention when necessary. By recognizing the limitations of certain diagnostic techniques and valuing the patient's subjective experience, healthcare professionals can ensure optimal care for patients with acute abdomen.

KEYWORDS: Abdominal pain; Ileus; Physical examination; Pneumoperitoneum

Carbon monoxide poisoning and ECMO as an option of treatment due to cardiac arrest – a case report

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INTRODUCTION: Carbon monoxide, when inhaled creates a carboxyhaemoglobin molecule and prevents oxygen binding to the haemoglobin. In some patients only mild symptoms can be present, but very often carbon monoxide poisoning can be life threatening and result in death, if not properly or timely treated. Such a patient was recently treated in the Clinical Hospital Centre Rijeka, whose treatment included VA-ECMO.

CASE PRESENTATION: A 60-year old male patient was accidentally poisoned with carbon monoxide. He was already unconscious, and with clear signs of respiratory insufficiency when the emergency services arrived. During transport he was provided with 100% oxygen therapy. On admission he was moved to the intensive care unit (ICU). During the preparation for hyperbaric oxygen therapy, patient suddenly went into a ventricular fibrillation cardiac arrest. Cardiopulmonary resuscitation (CPR) was performed. Soon after the return of spontaneous circulation an acute myocardial dysfunction was confirmed with echocardiography. Peripheral VA-ECMO (veno-arterial extracorporeal membrane oxygenation) therapy was considered and agreed upon after consult with the on-call cardiology and cardio surgery teams. After 2 days of VA-ECMO there was a significant recovery of myocardial function which allowed for the weaning of VA-ECMO. Brain CT scan showed no signs of hypoxic brain damage. After 10 days in the ICU, complicated by prolonged weaning from mechanical ventilation, the patient was fully awake and recovered well enough to be transferred to the pulmonology. Even though the period of acute carbon monoxide poisoning was over, he still underwent hyperbaric oxygen therapy to prevent late central nervous system complications of the CO poisoning.

CONCLUSION: Carbon monoxide poisoning is a life-threatening condition that can require a wide range of medical procedures to prevent death and also to reduce possible complications afterwards. In cases of cardiopulmonary arrest and severe myocardial dysfunction ECMO is a possible treatment option.

KEYWORDS: Carbon monoxide poisoning; ECMO; Hyperbaric oxygen therapy; Mechanical ventilation

Hemoptysis and chest pain after open water freediving: a case report

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INTRODUCTION: Hemoptysis is described as coughing up blood, while free diving is described as a relatively safe way to explore the ocean. The aim of this case report is to tie these two entities together and show how hemoptysis can be a rare and only symptom of lung barotrauma during free diving. Also this case can be used as an example of a phenomenon that occurs during diving called “lung squeeze”.

CASE PRESENTATION: A 27-year-old male was brought into the emergency room after losing consciousness during a free dive. On the way to the emergency room he coughed up blood many times and continued to fall in and out of consciousness a few times while oxygen was administered. During physical examination the patient is tachycardic and tachypneic with auscultatory diminished sounds at the lung bases and his eardrums intact. Chest radiography showed inhomogeneous opacities in the lower right lung. A CT was performed which ruled out pneumothorax and ultimately found alveolar hemorrhage as a result of barotrauma also known as “lung squeeze”. No re compression treatment was needed so the patient was given supportive therapy in the form of anti-emetics and oxygen which caused a regression of symptoms and the patient was promptly released from hospital.

CONCLUSION: The presentation of hemoptysis after freediving can be dramatic and is not commonly seen. This case showed how hemoptysis was an occurrence due to a physiological process called “lung squeeze”. In addition some form of drowning also occurred but is not connected to hemoptysis. All of this should be taken into consideration during diagnostics as it will allow for better patient care and with supportive measures it is treated with ease.

KEYWORDS: Barotrauma; Freediving; Hemoptysis

Lung ultrasound for optimal circulatory volume replacement in a patient with severely impaired left ventricular function: a case report

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INTRODUCTION: The FALLS protocol (Fluid Administration Limited by Lung Sonography) is a simple concept provided by Daniel Lichtenstein. The purpose of the protocol is explained by its name, exploiting the ability of ultrasound to detect lung interstitial edema in the early phase. The appearance of diffuse B-lines in areas previously occupied by A-lines is the moment when the lung interstitium begins to swell, and volume replacement should then stop to reach the maximal preload but before clinically significant lung edema develops. We present a patient with severely impaired left ventricular function in whom volume replacement was required due to significant hypovolemia as a consequence of a hyperosmolar hyperglycemic state.

CASE PRESENTATION: A 93-year-old patient with a history of arterial hypertension, type 2 diabetes, atrial fibrillation, and known reduced left ventricular ejection fraction estimated at 25% was admitted to the emergency department due to general malaise, hyperglycemia (serum glucose 46 mmol/L), tachypnea and fever. CRP 46 mg/L, leukocytosis (11.5x109/L), localized B-lines by lung ultrasound, and infiltrate on chest X-ray suggested pneumonia so amoxicillin with clavulanic acid was prescribed. Diagnosis of hyperglycemic hyperosmolar state precipitated by pneumonia leading to the development of lactic acidosis (blood lactate 10.4 mmmol/L) and acute renal insufficiency (urea 37.6 mmol/L, creatinine 301 μmol/L) was established. Treatment included the infusion of 0.9%NaCl solution, potassium supplementation, insulin drip, and later 5% glucose solution. Close monitoring by lung ultrasound was performed during the 0.9%NaCl infusion. After 3,5 liters diffuse B-lines appeared over the lungs and infusion was stopped. Subsequently, an improvement in the level of consciousness, correction of glycemic values, and a decrease in inflammatory parameters were achieved.

CONCLUSION: Volume restitution constitutes the basis of hypovolemic shock therapy. In patients with reduced left ventricular function, frequent lung ultrasound monitoring guides volume replacement to the optimal point of the Frank-Starling curve, preventing the development of clinical pulmonary edema.

KEYWORDS: Diagnostic Imaging; Hyperglycemic Hyperosmolar Nonketotic Coma; Hypovolemia

An unexpected cause of dyspnea in the emergency department

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INTRODUCTION: Dyspnea is a common symptom, affecting up to 25% of emergency patients. It is caused by many diseases, from self-limiting to life-threatening, most common being: COBD and asthma, congestive heart failure, pneumonia, acute coronary syndrome, valvular heart disease, anemia and other. We present a patient presenting with dyspnea but with an unusual underlying pathology.

CASE PRESENTATION: A 74-years old patient presented to emergency department with the main symptom of severe dyspnea. In the last month he was diagnosed and treated for pneumonia but without improvement. Vital signs upon arrival were: SpO_2 84%, blood pressure was 80/50 mmHg and pulse around 110 bpm, indicating he was in the state of shock. The patient was pale, with cold extremities and the auscultatory examination of the lungs revealed decreased breath sound on the right side. The abdominal examination revealed enlarged liver – palpated 4 cm below the right costal margin. RUSH ultrasound protocol was initiated to determine the origin of hypotension. It revealed normal right and left ventricular function, A-lines over the lungs, no pericardial or pleural effusion and narrow, collapsing inferior vena cava, thus confirming hypovolemia, and excluding other major pathology. Accidental pathological findings were 2 fluid collections in the liver (10×8cm and 7×6cm), most likely abscesses. The patient received immediate fluid resuscitation, 1L of saline in the first 30 minutes, and another in the next 45 minutes and was immediately admitted for placement of 2 drainage catheters. The patient's clinical condition improved rapidly, so did his laboratory findings.

CONCLUSION: Dyspnea in this patient was caused by shock due to liver abscess, which is a rare combination, making the diagnosis potentially challenging. The patient's poor vital signs indicated RUSH protocol, which practically by accident revealed this finding, but also revealed hypovolemia and excluded other pathology. Prompt fluid resuscitation and abscess drainage ensured quick recovery.

KEYWORDS: Dyspnea; Emergency care; Hypovolemic shock; Liver abscess

Recurrent dehydration episodes in a patient with ileostomy – a case report

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INTRODUCTION: Creation of an Ileostomy is often followed by significant dehydration which can have an impact on renal function. Dehydration occurs in 6% of all stoma patients within 30 days and approximately one in five patients is readmitted with dehydration being the leading cause within that period.

CASE PRESENTATION: An 87-year-old woman was seen in the Emergency Department several times during the course of a few months. In 2021 she underwent a bowel and bladder resection and was left with a permanent unipolar colostomy. In September of 2023 she presented with bowel obstruction due to cancer spread and a loop ileostomy was formed. On follow-up a surgeon commented that she had a high output ileostomy. A few weeks later she was hospitalized due to a urinary tract infection and acute renal injury. She was treated with meropenem and discharged but 10 days later she was readmitted with oliguria (300 ml in 3 days). The therapy included antibiotics and intravenous fluid and electrolyte resuscitation. She was discharged with antibiotics, enteral feeding formula and advice for oral rehydration of about 1L. In December she was brought in a hypotensive state with BP 70/47 mmHg. Labs showed elevated inflammation markers creatinine (390) and hyponatremia. Antibiotics and fluid resuscitation were administered. The patient was discharged 2 days later and this time, along with antibiotics, she was prescribed 1000 mL iv of saline daily which she would be given by a palliative care team in order to prevent recurrent dehydration episodes and admissions to the emergency department. There were no recurrences in the following 2 months.

CONCLUSION: Repeated admissions of ileostomy patients due to dehydration are a significant burden on the health care system. They may be avoided with better awareness, preventative measures and guidelines for ileostomy patient care.

KEYWORDS: Dehydration; Ileostomy; Postoperative complications

Symptomatic hyponatremia caused by psychogenic polydipsia – Case report

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INTRODUCTION: Hyponatremia is the most prevalent type of electrolyte imbalance in clinical medicine, most commonly observed in patients presenting to the emergency department. It affects between 5% and 10% of patients upon admission and up to 35% of hospitalized patients. Hyponatremia is most frequently defined by a sodium level in the serum less than 135 mmol/L and is further categorized into mild (130–135 mmol/L), moderate (125–129 mmol/L), and severe (<125 mmol/L).

CASE PRESENTATION: A 27-year-old female patient was brought in by an ambulance due to loss of consciousness and grand mal epileptic seizures. During transport, she received 10 mg of diazepam and oxygen at 15 L/min.
Upon arrival, the patient was unresponsive with a Glasgow Coma Scale (GCS) score of 6. Arterial Blood Gas (ABG) analysis showed a sodium level of 109 mmol/L. After the administration of NaHCO3, the sodium level increased to 115 mmol/L. The patient's mother reported that she had been consuming large amounts of water during the previous 14 days following a breakup with her boyfriend. Chest radiography revealed infiltrates consistent with bilateral pneumonia, leading to the initiation of antibiotics. Computerized tomography of the brain showed no abnormalities. However, the electroencephalogram (EEG) findings indicated metabolic encephalopathy. Brain Magnetic resonance imaging (MRI) revealed a laminar subdural hematoma. The patient was admitted to the intensive care unit, where a psychiatrist was consulted for psychogenic polydipsia. Diazepam and haloperidol were introduced. The patient agreed to be transferred to a psychiatric hospital upon improvement of clinical symptoms.

CONCLUSION: It is important to recognize the underlying condition of hyponatremia to initiate the right treatment as soon as possible, especially if it is acute and rapidly developed, as it determines the severity of symptoms. In such scenarios, it is recommended to treat patients immediately with a rapid infusion of 3% saline.

KEY WORDS: Hyponatremia; Psychogenic Polydipsia; Water Intoxication

Severe postanoxic encephalopathy following out-of-hospital resuscitation and coronary bypass surgery – a case report

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INTRODUCTION: Postanoxic encephalopathy is a serious neurological condition manifesting as a decreased level of consciousness caused by reduced cerebral blood flow, most commonly following cardiac arrest. Even though the return of spontaneous circulation (ROSC) is sometimes achieved, many patients still suffer postanoxic encephalopathy and expire without regaining full consciousness.

CASE PRESENTATION: A 62-year-old patient suffered an out-of-hospital cardiac arrest with a rhythm of ventricular fibrillation and was resuscitated followed by ROSC. Upon admission to the hospital, his Glasgow Coma Score was 3 and electrocardiography showed sinus rhythm with an ST elevation in leads V1 – V6 indicating myocardial infarction. Emergency brain computed tomography (CT) showed no signs of acute ischemia, hemorrhage, or edema. Percutaneous coronarography was performed, confirming occlusion of the proximal right coronary artery (RCA) and middle left anterior descending artery (LAD) and stenosis of the first obtuse marginal artery (OM1). While placing the stent into LAD, the artery was perforated which prompted a fast cardiosurgical intervention. Triple coronary bypass surgery was performed with no pulsatile blood flow after the procedure, demanding the establishment of central veno-arterial ECMO and inotropic support. The patient was placed in the intensive care unit with ECMO and ionotropic support being removed third and sixth day post-op respectively. Investigating persistent unconsciousness, electroencephalography (EEG) and a brain CT were conducted first day post-op indicating nonconvulsive status epilepticus (NCSE) and cerebral edema leading to the introduction of antiepileptic and antiedematous therapy. Control brain CT showed diffuse hypoxic-ischemic edema indicating the development of severe postanoxic encephalopathy. A neurological examination confirmed the diagnosis with the absence of corneal and oculocephalic reflexes. The patient showed no recovery.

CONCLUSION: Even though extensive measures of heart revascularisation were undertaken in this patient, they turned out futile. This indicates how important timely, high-quality resuscitation is in surviving cardiac arrest without severe neurological consequences.

KEYWORDS: Anoxic encephalopathy; Cardiac arrest; Coronary artery bypass; Resuscitation

Case report: Motor-Scooter Handlebar Syndrome: Blunt trauma to the superficial femoral artery in a nine-year-old boy during a bicycle accident

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INTRODUCTION: Vascular injuries in children are rare and predominantly occur from sharp trauma or in association with displaced fractures. A particularly rare entity is the Motor-Scooter Handlebar Syndrome - a blunt injury to the iliac or femoral vessels resulting in dissection and thrombosis, consequent to a direct impact on the handlebar of a motorcycle, scooter or bicycle, without associated bony injury.

CASE PRESENTATION: A nine-year-old boy was admitted to the hospital for a right thigh injury sustained during a bicycle fall, resulting in a contusion on the tip of the bicycle brake lever. Examination revealed a contusion wound 1 cm in length, with surrounding subcutaneous hematoma. Popliteal artery pulsations and distally were not palpable. The foot was colder with the prolonged capillary refill, around 5-6 seconds and preserved sensation and motor function. Doppler and CT angiography confirmed thrombosis of the superficial femoral artery 5 cm after bifurcation, extending 4 cm in length with good collateral flow from the deep femoral artery. Considering the absence of signs of extremity circulatory insufficiency and spontaneous recovery of the foot circulation, the initial conservative approach was chosen with unfractionated heparin for 5 days followed by antiaggregation therapy for 4 weeks. During the 3-month follow-up, spontaneous recanalization did not occur, the boy experienced intermittent claudication after walking 500 m, so elective venous bypass reconstruction is planned to avoid growth disturbance.

CONCLUSION: Vascular injuries in children are rare and clinical signs range from acute ischemia to completely asymptomatic major artery occlusion (in cases of well-developed collateral circulation). Occlusion of the major blood vessel of the extremity should be followed up long-term for possible chronic circulatory insufficiency and growth disturbance of the extremity.

KEYWORDS: Blunt Injuries; Femoral Arteries; Vascular Injuries

Hypertrophic cardiomyopathy and cardiac arrest provoked by low-intensity physical activity - case report

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INTRODUCTION: Hypertrophic cardiomyopathy (HCM) is the most common genetic cardiac muscle disorder, characterized by unexplained left ventricular hypertrophy. The majority of patients present during childhood and carry a significant risk of sudden cardiac death due to malignant ventricular arrhythmias, especially during high-intensity physical activity, while others remain completely asymptomatic until late in life.

CASE PRESENTATION: A 19-year-old, previously healthy female from France was admitted to our hospital after an out-of-hospital cardiac arrest, that occurred on the street at the beginning of the planned hike. Cardiopulmonary resuscitation was started by laypersons, and continued by emergency service persons who detected ventricular fibrillation which was defibrillated once resulting in the restoration of sinus rhythm. At the admission, the patient was unconscious Glasgow Coma Scale 3 (GCS), with spontaneous circulation. Computerized Tomography (CT) angiography ruled out aortic dissection and pulmonary embolism. Echocardiography revealed significant hypertrophy of the left ventricle walls (20 mm), with reduced cavity diameter and mildly reduced ejection fraction (45-50%). Coronary angiography showed no signs of coronary artery stenosis or obstruction. Due to persistent neurologic impairment, "targeted-temperature management" with the goal body temperature less than 37.0°C during 48 hours was performed prompting partial neurological recovery, however, frequent epileptic seizures persisted. Neuron Specific Enolase level after 72 hours was 39 µg/L. A brain CT scan and Brain Magnetic Resonance Imaging revealed an acute ischaemic lesion in the right precentral cerebral gyrus and the right cerebellar hemisphere. Somatosensory evoked potential measurements showed severe conductance impairment of both median nerve sensory pathways. During the hospitalization, the patient was treated with empirical antibiotic therapy, low-molecular-heparin, anticonvulsants, and heart failure therapy. After transfer in France, implantable cardioverter-defibrillator implantation and neurological rehabilitation with very good results were performed.

CONCLUSION: Due to the correlation between exercise and fatal arrhythmias in HCM, the question of the extent to which physical activity should be restricted remains unanswered.

KEYWORDS: Activity, Physical; Cardiomyopathy, Hypertrophic; Death, Sudden, Cardiac

Pituitary macroadenoma apoplexy presenting with acute vision loss and meningitis: a case report

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INTRODUCTION: Pituitary adenomas are the fourth most common intracranial tumors and are by far the most common disease affecting the pituitary gland. The majority of these tumors are benign. However, as they grow, they can cause various intracranial compressive symptoms. The most feared complication is adenoma apoplexy, which is a unique emergency that occurs due to infarction or hemorrhage of the gland.

CASE PRESENTATION: A 19-year-old patient presents with pulsating headache and left ophthalmoplegia resulting in decreased eyesight. Upon his arrival, a CT was performed revealing an expansive, destructive sellar region mass which was infiltrating both sphenoid and cavernous sinus and pressing on anterior cerebral arteries. The MRI image was consistent with the one of pituitary macroadenoma. The sudden onset of his decompensation was due to pituitary apoplexy. He was admitted to the intensive care unit where his condition worsened as he became febrile. Lumbar puncture was indicated, and the results came positive for bacterial purulent meningitis arising from the foundation of the tumor which led to paresis of oculomotorius nerve. Subsequently, the decision was made for him to be operated on without any delay. The transsphenoidal approach was used to access the tumor. The mass was removed in its totality and tissue samples were sent for pathohistological analysis. The analysis confirmed the presence of hypophyseal macroadenoma. Postoperatively, the patient began suffering from hypopituitary symptoms as well as diabetes insipidus. A lifelong substitution therapy was introduced in the form of levothyroxine, testosterone and hydrocortisone.

CONCLUSION: Pituitary macroadenomas are mostly benign by nature. Their growth, on the other hand, can produce severe compression syndromes resulting in ophthalmologic, neurosurgical and even endocrinological emergencies. Timely and precise diagnosis and treatment, as well as the adequate postoperative care of the patient are of the utmost importance.

KEYWORDS: Adenoma; Diabetes insipidus; Meningitis; Neurosurgery; Pituitary neoplasms

High Urgency Liver Transplantation in a Patient with Wilson's Disease – Case Report

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INTRODUCTION: Wilson's disease (WD) is a genetic disorder of copper metabolism leading to progressive accumulation of copper in the liver, brain and cornea. Patients with WD frequently progress to cirrhosis, and often present with ACLF (acute-on-chronic liver failure). ACLF is characterized by multiorgan failure and high in-hospital mortality. Acute liver failure is a rare manifestation of WD which, if medical treatments fail, may require high urgency transplantation.

CASE PRESENTATION: A 73-year-old female patient with a history of WD having been treated with penicillamine for 30 years, presented to the local hospital with jaundice and encephalopathy that had developed 3 days before hospitalization. She was transferred to the Liver Transplant Center, University Hospital Merkur, because of suspicion of developing acute-on-chronic liver failure from known Wilson's disease.She was hypotensive and oliguric with severely impaired synthetic (INR 5.1) and excretory liver function (bilirubin 805 umol/l) with grade III encephalopathy. Diagnosis of ACLF–grade 3 was established with failure of three organ systems: liver, coagulation, and brain. She was enlisted for a liver transplantation. High urgency status was approved by Eurotransplant subsequently. Within the next 48 hours, liver allograft was located and orthotopic liver transplantation was performed with an uneventful postoperative course.

CONCLUSION: ACLF is an entity whose pathogenesis, presentation and prognosis is different from decompensated liver cirrhosis. ACLF–grade 3 is defined as the development of three or more organ failures and has associated mortality without liver transplantation approaching 80% at 28 days. Liver transplantation can strongly improve the prognosis and short-term and long-term survival of patients with WD presented with ACLF.

KEYWORDS: Acute-On-Chronic Liver Failure; Transplantation; Wilson's Disease

Shaken baby syndrome: A case report

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INTRODUCTION: Shaken baby syndrome (SBS) occurs when an infant is violently shaken, causing severe damage to the immature brain. The acceleration-deceleration and rotational forces involved can cause subdural hematomas, as seen in this case. SBS has far-reaching consequences, ranging from immediate physical harm to long-term emotional and cognitive challenges. By shedding light on this case, we hope to highlight the importance of early detection and intervention as well as raise awareness to protect the well-being of our youngest community members.

CASE PRESENTATION: A 5-month-old infant was admitted to the emergency department after experiencing symmetrical leg cramping during a 45-minute convulsive episode. During the episode, the infant appeared unresponsive, with a head turned to one side and one eye closed. A tense anterior fontanelle was found during the initial examination, but the medical history did not reveal any prior health problems. Retinal hemorrhage was discovered during an ophthalmological examination and a subsequent head CT scan revealed bilateral subdural hematomas. Different stages of hematoma were visible on the MRI, indicating both recent and old bleeding, which is suggestive of non-accidental trauma. Despite the lack of external signs of abuse, the presence of bilateral subdural hematomas and retinal hemorrhage raised suspicion of shaken baby syndrome. The infant was initially closely monitored but eventually required neurosurgical intervention due to the progression of subdural hematomas. Trepanation and drainage were used to relieve pressure and prevent additional neurological damage. A collaborative effort among neurosurgeons, pediatricians, ophthalmologists, and social workers was critical in providing comprehensive care for the infant.

CONCLUSION: This case strongly highlights the importance of preventing and detecting SBS symptoms early on, as it can have serious consequences. By working together, healthcare professionals can play a crucial role in creating a safer environment for infants, protecting them from the harmful effects of shaken baby syndrome.

KEYWORDS: Drainage; Retinal Hemorrhage; Shaken Baby Syndrome; Subdural Hematoma

Presentation, radiological findings and management of oesophageal foreign body: case report

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INTRODUCTION: Background: Oesophageal foreign body impaction, often at sites of physiological luminal narrowing, is a common clinical presentation in the Emergency Department. Most of the foreign bodies are food-related and pass spontaneously. However, 10-20% require endoscopic manoeuvres, and less than 1% require surgical procedures. The standard methods include push technique and retrieval using either rigid or flexible endoscopy, but other techniques such as passing an endoscopic guidewire alongside the foreign body, balloon inflation, and pulling back to achieve dislodgement can also be used. Aim: To raise awareness, discuss clinical presentation, specific radiological findings and management of oesophageal foreign bodies.

CASE PRESENTATION: A 35-year-old patient presented to the Emergency Department after accidental ingestion of several pieces of sharp unprocessed shells. The patient experienced a subsequent episode of choking which settled with provoked coughing, followed by symptoms of persistent throat discomfort and odynophagia. After a thorough examination and a series of anteroposterior and lateral soft tissue neck radiographs a radiopaque oesophageal foreign body was identified. Rigid oesophagoscopy under general anaesthesia and removal of the foreign body was performed with nasogastric tube insertion until recovery. Repeat imaging demonstrated resolution of the foreign body. The patient was commenced on a seven day broad spectrum antibiotic course which was switched from intravenous to oral once the patient was discharged on the fourth postoperative day.

CONCLUSION: Oesophageal foreign body should always be part of the differential diagnosis of acute upper gastrointestinal symptoms starting after ingestion. Most radiopaque foreign bodies will be visualised on plain radiographs but if they are nonradiopaque and suspected, a barium swallow can be performed to outline them. Future research is needed to determine a standard therapeutic approach as current endoscopic techniques used in the management depend on specifics of individual cases.

KEYWORDS: Endoscopy; Foreign bodies; Radiology; Upper gastrointestinal tract

Ultrasound as the stethoscope of the future?

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The stethoscope is still the first diagnostic tool in the assessment of patients with pulmonary symptoms in emergency medicine. However, in critically ill patients, auscultation with a stethoscope can be challenging since the back of the lung is difficult to access in supine patients and ambient sounds are often noisy. There is much debate about the diagnostic accuracy of this instrument. Lung ultrasound has become integrated into the daily work of emergency medicine doctors and has especially developed in the last ten years. Easy access to hand-held ultrasound devices, which were not available in the past, enabled the wide diagnostic use of ultrasound both for clinical examinations and for the performance of therapeutic procedures. Given the rapid development of protocols and the development of technology in the future, it could certainly completely replace the stethoscope. The aim of this review is to compare lung ultrasound and lung auscultation as a diagnostic tool in critically ill patients with lung pathology. Numerous studies have proven that lung ultrasound has a high specificity and sensitivity in detecting pneumothorax. For the detection of pneumonia, it can achieve a specificity of 75-90% and a sensitivity of 85-95%. A focused lung ultrasound is better than a standard chest radiograph in detecting or excluding pulmonary edema and pneumothorax. For example, a study conducted on 926 patients aimed to compare the accuracy of lung ultrasound findings with stethoscope auscultation findings in patients with suspected pulmonary edema. 33% of patients met the criteria for pulmonary edema on lung ultrasound, and of that group of patients, even 51% had a normal auscultation finding. Auscultatory stethoscope and lung ultrasound are proving to be valuable methods in the diagnosis of lung pathology. It is necessary to encourage new research on the topic of offering the advantages of ultrasound over the stethoscope in the initial assessment of patients with lung pathology.

KEYWORDS: Pneumonia; Pneumothorax; Pulmonary edema

Bilateral pulmonary embolism – a case report

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INTRODUCTION: Pulmonary embolism is a blockage of a pulmonary artery or its branches by a solid, liquid, or gaseous substance. Pulmonary emboli originate from thrombi that usually form in the deep leg veins.

CASE PRESENTATION: A 40-year-old woman was admitted to the hospital because of sudden shortness of breath. She complains of pain in the central part of her chest spreading towards her neck and a tingling feeling on her lips and in her left hand. She has been physically inactive for the last month due to a rupture of the meniscus of her right leg caused by an injury. The right lower leg is more voluminous. Blood oxygen saturation is 95%, blood pressure 150/100 mmHg, and heart rate 190/min. D-dimers are elevated (3.96 mg/L). NTproBNP and high-sensitivity troponin are minimally elevated. ECG is normal. X-rays of the heart and lungs are normal. MSCT pulmonary angiography shows filling defects at the bifurcations of the left and right main pulmonary arteries spreading into lobar and segmental branches. The diameter of the pulmonary trunk is 30 mm. A diagnosis of bilateral acute pulmonary embolism of an intermediate-low risk was made so thromboaspiration was not indicated. Doppler ultrasound of the vein of the right leg showed a hyperechoic thrombus in the initial part of the popliteal vein. This finding corresponds to subacute deep vein thrombosis. Oral Eliquis (apixaban, an anticoagulant, reversible, and highly selective inhibitor of the active site of factor Xa) and compression stockings were introduced into the therapy.

CONCLUSION: Pulmonary embolism often occurs with associated risk factors, such as prolonged bed rest, tendency to form blood clots, or recent surgery (as is our patient's case). With this case report, we want to emphasize the importance of anamnesis and early treatment of pulmonary embolism, which can prevent complications, including death.

KEYWORDS: Anticoagulant; Deep Vein Thrombosis; Pulmonary Embolisms; Thromboembolisms

Case report of severe hyponatremia caused by adrenal crisis in a girl with newly diagnosed adrenal insufficiency – summary

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INTRODUCTION: Hyponatremia is a common electrolyte disorder that is biochemically defined as serum sodium concentration <135 mmol/L. Severe hyponatremia is defined as a sodium value <125 mmol/L. Hyponatremia can be one of the clinical manifestations of acute adrenal insufficiency and adrenal crisis.

CASE PRESENTATION: A 17-year-old girl came to the emergency room because she was feeling weak and experiencing malaise, vomiting and having a presyncope episode. Physical examination revealed that the girl was conscious, malaise, moderately dehydrated, hypotensive (RR 95/65 mmHg), having prolonged capillary refill time (4 seconds) and cold extremities. Due to signs of hypovolemic shock, she received two boluses of fluid, which made her hemodynamically stable. Laboratory findings revealed metabolic acidosis (pH 7.29, HCO3 13.2) with severe hyponatremia (Na 98 mmol/L) and hypoglycaemia (2.8 mmol/L). Hypoglycaemia was corrected with a 10% glucose bolus. The differential diagnosis of hyponatremia is broad. By verifying that the patient had signs of hypovolemic hyponatremia, we considered acute gastroenteritis, renal diseases with salt loss, use of diuretics, cerebral salt wasting and primary adrenal insufficiency (PAI) as possible causes of hyponatremia. The exclusion method led to the diagnosis of adrenal crisis as part of PAI. Cortisol and ACTH were sampled, and stress doses of hydrocortisone were administered. Parenteral hydration with Glucosaline I was continued. Subsequent findings confirmed the clinical diagnosis of PAI [low cortisol value (43.4 nmol(L)) with high ACTH value (264 pmol/L)]. Hyponatremia was corrected within three days. On the fourth day of the stay, a replacement dose of glucocorticoids and mineralocorticoids was administered. On the ninth day of her stay, the girl was discharged, with the recommendation of mandatory regular use of substitution therapy.

CONCLUSION: With the presentation of this patient, we wanted to emphasize that primary adrenal insufficiency and adrenal crisis should be considered as possible causes of severe hyponatremia.

KEYWORDS: Adrenal Insufficiency; Hyponatremia; Sodium

Case report of a patient with gamma-hydroxybutyrate withdrawal

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INTRODUCTION: Gamma-hydroxybutyrate (GHB) is a central nervous system depressant primarily abused as a recreational drug. It is also used for treating narcolepsy with cataplexy in adults and as an adjunctive medication or alcohol withdrawal. GHB is a neuromodulator in the GABA system and primarily acts through GABA-B receptors. It is also known as G and Liquid Ecstasy.

CASE PRESENTATION: A 22-year-old male with a history of HIV infection and polysubstance abuse presented to the emergency department (ED) seeking psychiatric assistance for addiction treatment. He has been receiving HIV therapy for the past five years. During observation in the ED, he developed a sudden-onset withdrawal crisis and became delirious. Patient was admitted to the Intensive Care Unit where he was extremely agitated and hallucinating. He had a pronounced tremor of the whole body, especially of the head. Vital signs included sinus tachycardia (180-200/min) and hypertension (160/90 mmHg).Therapy was initiated with high doses of parenteral diazepam, approximately 200 mg administered during the first several hours, but this resulted in no improvement, indicating refractory withdrawal syndrome. Subsequently, he was intubated and mechanically ventilated and continuously deeply sedated with high doses of midazolam (0.26 mg/kg/h) and propofol (2.3 mg/kg/h). Later on, midazolam was replaced with dexmedetomidine (0.57 mcg/kg/h). After three days he was weaned off mechanical ventilation and was cooperative while receiving only small doses of oral sedatives. The patient was referred for further treatment at a psychiatric institution.

CONCLUSION: Symptoms of GHB withdrawal develop rapidly, typically within one to six hours of cessation and can be life-threatening. Therefore, patients known to abuse GHB should be closely monitored for the development of withdrawal symptoms. Treatment is focused on managing symptoms with high doses of sedatives and some patients may need intubation and mechanical ventilation. Severe delirium can last for up to 14 days.

KEYWORDS: Addiction; Drug Abuse; Midazolam; Withdrawal

Comatose state caused by extreme hyperglycemic ketoacidosis – A case report

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INTRODUCTION: Hyperglycemic ketoacidosis is a state characterized by increased body ketone concentration which may often lead to brain oedema, comatose state and death. It is a life - threatening complication that usually occurs in patients with type – 1 diabetes. Rarely, it can also occur in patients with type – 2 diabetes.

CASE PRESENTATION: A 56 – year-old, type-1 diabetic male, came to the emergency room due to impaired state of consciousness and hyperglycemia. He couldn´t explain exactly what happened except that he threw up four times that morning. On examination, he was conscious, somnolent, and disoriented. His skin color and turgor were maintained. He was afebrile, eupnoic with rhythmic and well filled pulse of 60/min, and a blood pressure of 115/80 mmHg. Blood tests showed glucose levels of 81,3 mmol/L, urea of 26,9 mmol/L, creatinine of 248 μmol/L, and significantly reduced sodium levels of 126 mmol/L. First acid-base status showed severe acidosis with pH of 6,84, pCO2 and pO2 being 1,5 kPa and 20,3 kPa, respectively. To correct his hyperglycemia, he was given 12 units of Actrapid with 500 ml of 0,9% NaCl intravenously. During the night he received 50 more units of Actrapid with 1050 ml of 0,9% NaCl intravenously during the span of 7 hours. He was also given 100 ml of 8,4% sodium bicarbonate to correct his sodium levels. In the following days he was drowsy, disoriented, agitated, and sometimes conscious. After an examination by a psychiatrist, mixed delirium was diagnosed, and Haldol and Apaurin were prescribed. On the fifth day of his hospitalisation, he was transferred to the Department od Endocrinology, where he remained under observation for the next two days, and was discharged.

CONCLUSION: Poor regulation of diabetes can lead to hyperglycemic ketoacidosis which, if not treated in time, is a dangerous condition that can end fatally.

KEYWORDS: Acidosis; Diabetes; Somnolent

Case report of child polytrauma

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INTRODUCTION: Polytrauma is a life-threatening condition, describing patients whose injuries involve two or more body regions. They are mostly associated with motor vehicle crashes occurring at high velocities. On admission, medical team with anesthesiologist, surgeon and neurosurgeon should be prepared.

CASE PRESENTATION: An 8-year-old female presented with polytraumatic injuries due to a car accident. On admission she was unconscious, ceased respiratory activity, pulseless, with wide and areflective pupils and Glasgow coma score was 3. Monitoring showed pulseless electrical activity (PEA) and the medical team began with cardiopulmonary resuscitation (CPR). She was intubated and put on mechanical ventilation. After 25 minutes of CPR and a total of 6 mg of adrenaline, there was a return of spontaneous circulation. She was administered cristaloides, concentrated erythrocytes, noradrenaline and analgosedation. Computed tomography confirmed polytraumatic injuries. A brain edema developed, and she was referred for urgent placement of an external cerebrospinal fluid drainage system, coupled with anti-edematous therapy. Due to progression of hemodynamic instability, the dose of noradrenaline was increased and she was administered vasopressin, blood derivatives, fibrinogen and prothrombin complex concentrate. Hemodynamic instability proceeded and placement of extracorporeal membrane oxygenation (ECMO) was indicated. Intraoperatively, she was given adrenaline, noradrenaline and vasopressin, without any improvement. She was bleeding heavily and symptoms of disseminated intravascular coagulation (DIC) occurred. Administered therapy was protamine sulfate and coagulation factors. There had been irreversible circulatory collapse and progression of DIC. The flow on the ECMO could no longer be sustained. Despite all intensive treatment measures, the patient's condition deteriorated, and she passed away.

CONCLUSION: Polytrauma is a serious condition which needs to be diagnosed and managed immediately. If needed, it is crucial to start immediate CPR. Unfortunately, polytrauma can be fatal even after all treatment resources have been exhausted.

KEYWORDS: Cardiopulmonary resuscitation; Extracorporeal membrane oxygenation; Polytrauma

Preeclampsia at 24 weeks of pregnancy: case report

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INTRODUCTION: Preeclampsia is the development of hypertension (>140/90mmHg) with proteinuria (≥ 0.3g protein in a 24-hour urine specimen) after 20 weeks of gestation. It affects 3-8% of pregnant women and remains a leading cause of short- and long-term neonatal and maternal morbidity and mortality. In most cases, severe preeclampsia is an indication for delivery, regardless of gestational age or maturity.

CASE PRESENTATION: A 35-year-old pregnant female was admitted to the Gynaecology and Obstetrics Clinic because of high blood pressure and the finding of protein in the urine. At the time of examination, the patient was 24 weeks pregnant. From the anamnesis, it was found out that she suffers from asthma and hypothyroidism. During pregnancy, she developed gestational diabetes. The blood pressure values during the examination were 173/115 mmHg. Magnesium sulfate regimen was prescribed due to the neuroprotection of the fetus and the prevention of eclamptic attacks. Due to severe preeclampsia (7g of proteinuria with a drop in platelet values), intrauterine growth restriction, anhydramnios and signs of fetal hypoxia, it was decided to terminate the pregnancy by emergency caesarean section in interest of mother. The newborn died on the second day after delivery. After the procedure, she was treated with nifedipine 3 x 1 tablet per day and low molecular weight heparin 0.6 ml subcutaneously. The patient has been discharged for home care after a nine-day hospital stay with stable blood pressure readings.

CONCLUSION: Preeclampsia is a serious medical condition that can significantly affect the health of the pregnant woman and the fetus. It requires timely recognition and early treatment to prevent further complications.

KEYWORDS: Caesarean section; Intrauterine growth restriction; Preeclampsia

Fast management of a cerebrovascular accident with a twist - a case report

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INTRODUCTION: A cerebrovascular accident (CVA) is an emergency caused by an acute compromise of cerebral blood supply. Most frequently CVA is ischemic, caused by occluded cerebral arteries, followed by hemorrhagic CVA, which occurs due to a ruptured cerebral blood vessel. Ischemic CVAs are caused by chronic unregulated arterial hypertension leading to atherosclerosis, clotting disorders, drug abuse, and carotid dissections. Ruptured aneurysms and traumatic brain injuries are the most common causes of hemorrhagic CVAs.

CASE PRESENTATION: A 64-year-old male was brought to the emergency department by an ambulance at 10:30 a.m. after collapsing at home and regurgitating around 9 a.m. Upon examination, the patient had a blood pressure of 145/85 mmHg alongside dysarthria and left-side faciobrachiparesis. He had a history of chronic arterial hypertension and smoking (50 pack years). Since the NIH Stroke Scale/Score (NIHSS) was 5, and a computed tomography (CT) scan confirmed occlusion of the arteria cerebri media (ACM), thrombolysis was initiated at 11:15 a.m. However, further examination of the CT scan showed several smaller subarachnoid hemorrhages, originally thought to be smaller artifacts. Alteplase perfusion was discontinued promptly, a minute after its initiation. Neurosurgery was consulted, but neurosurgical treatment was not indicated. The patient was admitted to the neurology department where he is currently in treatment.

CONCLUSION: Quick therapy is a priority in CVA, but distinguishing the etiology is sometimes a challenge. It is essential to treat ischemic CVA with thrombolysis within 4,5 hours of the onset of symptoms, or up to 6 hours if mechanical thrombectomy is possible. Hemorrhagic CVA requires management of BP and intracranial pressure, to prevent hypoperfusion by cerebral autoregulation as well as possible antiepileptic therapy and surgical intervention. Since it's impossible to differentiate ischemic and hemorrhagic CVA in the EMS, BP of 180/100 mmHg is satisfactory, however, BP up to 220/120 mmHg is tolerated.

KEYWORDS: Cerebral hemorrhage; Cerebral ischemia; Cerebrovascular accident; Stroke

A case report of a car driver presenting with polytrauma

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INTRODUCTION: Polytrauma is a condition presenting with traumatic injuries at two or more areas of the body, having the potential to cause multiple organ dysfunction. The most common causes of polytrauma are motor vehicle accidents with greater risk when involving substance abuse.

CASE PRESENTATION: A 35-year-old male presented with polytraumatic injuries due to a car accident, under the influence of cocaine and alcohol, after frontal collision with an unmoving object. On emergency medicine services arrival, he was conscious, hypotensive, tachycardic, agitated with lacerocontusum wound bleeding profusely on the head. Continuous oxygenation by non-rebreather mask with flow 12L/min was administered. Computed tomography revealed multiple fractures of cervical and lumbar spine, ribs and pelvic area, liver and lung contusions, right-side emphysema and pneumothorax, gastroduodenal artery hemorrhage resulting in retroperitoneal hematoma compressing pancreas and lienal artery. He was administered fentanyl, cristaloides, tranexamic acid and concentrated erythrocytes. Exploratory laparotomy and hemostasis were performed, head laceration was managed and stitched up. Patient was admitted to the intensive care unit, put on mechanical ventilation and administered noradrenaline, cefazolin, metronidazole and furosemide. In the next few days, multiple doses of concentrated erythrocytes were administered due to recurrent hematoma. On the seventh day, the patient's inflammatory parameters were increased, with fever and tachycardia. A bronchoalveolar lavage sample detected Acinetobacter baumannii, leading to colistin and ampicilin-sulbactam administration. On the thirtheenth day he was extubated. The patient was delusional and agitated, requiring psychiatric evaluation. Consequently, he was administered haloperidol, quetiapine, clonazepam. The pneumothorax had reoccurred and was managed via active suction. The treatment is still ongoing.

CONCLUSION: Polytrauma is a severe condition demanding multiple surgical interventions and prolonged hospital stay, increasing risk for hospital infections. Acinetobacter is a pathogen commonly found in hospital environments. When treating polytraumatic patients, conditions like pneumothorax can reoccur, requiring further assessment and prolonging treatment.

KEYWORDS: Acinetobacter baumannii; Alcohol abuse; Drug abuse; Emergency medicine; Multiple trauma

A case of severe intracranial hemorrhage

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INTRODUCTION: Intracranial hemorrhage (ICH) refers to abnormal bleeding within the skull, involving brain tissue or surrounding spaces. The cause may be trauma or underlying medical conditions, such as hypertension. The severity of ICH can vary, from asymptomatic minor bleeding to life-threatening events. Prompt diagnosis and appropriate treatment are vital for managing ICH and minimizing complications.

CASE PRESENTATION: A 76-year-old female, previously in good health, was found unconscious at home. History of prior illnesses showed long-term arterial hypertension and past myocardial ischemia, treated conservatively. She had an ischemic stroke seven years ago, without persistent neurological defects. On emergency medicine services arrival, she was unresponsive with anisocoric pupils, scoring 3 on Glasgow Coma Scale. Vital parameters were stable, and continuous oxygenation by mask was administered, with oxygen flow 5 - 7 L/min. Upon transport to the emergency department her condition remained unchanged. Neurological examination showed flaccid paralysis with positive Babinski sign bilaterally. She was deemed 28 on the National Institutes of Health Stroke Scale (NIHSS), indicating severe stroke. A computed tomography (CT) scan was ordered, showing substantial 7 cm intracranial hematoma with intraventricular hemorrhage and herniation of the left subfalcine and uncal regions, with descending transtentorial herniation. A diagnosis of hypertensive ICH with hemorrhagic stroke was made. Supportive treatment with continuous observation was indicated. Due to worsening of her symptoms, a control CT scan was made, showing periventricular interstitial edema, confirming hydrocephalus. Hernia compression led to ischemia of the posterior part of the right cingulate gyrus. Neurosurgical intervention was ruled out due to symptom severity, and supportive measures continued. Despite treatment, the patient's condition deteriorated, resulting in her demise.

CONCLUSION: Even with prompt reaction, ICH remains a life-threatening condition, with challenges in its management and severity of the outcome. Despite immediate medical intervention, the patient's condition worsened, leading to a fatal outcome.

KEYWORDS: Hypertension; Emergency medicine; Intracranial hemorrhage; Stroke

Kawasaki shock syndrome presented as septic shock in a child with atypical Kawasaki disease: case report

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INTRODUCTION: Kawasaki disease can be presented in an atypical way. The aim of this case report is to show a patient with Kawasaki shock syndrome and the diagnostic challenges of this clinical entity as well as to emphasize importance of recognizing atypical signs in presentation of Kawasaki disease such as signs of shock and unexplained fever.

CASE PRESENTATION: A four-year-old boy was admitted to the intensive care unit due to five days of fever, pain and swelling on the left side of the neck, and multiple vomiting. Physical examination revealed bilaterally injected conjunctiva, hyperemic eyelids, a maculopapular rash of the neck and trunk which anemizes on pressure, and a vaguely limited, painful swelling on the left side of the neck with surrounding reddening of the skin. Based on the signs of "cold" shock with diffusely altered laboratory results that speak in favor of sepsis, therapy with boluses of fluid and adrenaline was started, a central venous catheter was placed and blood cultures were taken, and empiric antibiotic therapy was started as well. Despite respiratory and inotropic support, the boy's condition worsened, and blood cultures were repeatedly sterile. After 13 days of treatment, the coronary artery aneurysms of both coronary arteries were noticed, which led to the diagnosis of Kawasaki shock syndrome. After completing treatment with intravenous immunoglobulins, acetylsalicylic acid and methylprednisolone, the patient's condition improved and he was discharged home after 30 days of hospital treatment.

CONCLUSION: Kawasaki disease can be presented in an atypical way. The presence of signs of shock along with unexplained fever and characteristic signs of Kawasaki disease should raise the suspicion of Kawasaki shock syndrome in order to start treatment in time and avoid serious complications of this disease.

KEYWORDS: Atypical Kawasaki disease; Kawasaki shock syndrome; Coronary artery aneurysm

Cardiological complications of hematological diseases– A narratitive review summary

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In the intricate interplay between cardiology and hematology, the emergence of cardiovascular complications within the landscape of hematological diseases poses a profound clinical challenge. Hematological conditions, marked by their diverse nature, can give rise to intricate cardiac complications that demand a nuanced understanding and specialized management. Among the multifaceted strategies in navigating these complexities, this review focuses on the intricate web of cardiological challenges intertwined with hematological disorders. From the intricacies of disease-induced manifestations to the exigencies of treatment-related repercussions, this exploration aims to shed light on the pivotal role of cardiovascular considerations within the realm of hematological illnesses. Through a comprehensive examination of relevant literature and illustrative patient cases, we aim to unravel the intricate tapestry of cardiological complications associated with hematological diseases, providing insights essential for holistic patient care and informed medical decision-making.

Through clinical case presentations of hematological patients, we address various topics including acute coronary events due to sideropenic anemia, acute heart failure caused by anemia, infiltration of the cardiac muscle by non-Hodgkin's lymphoma, heart failure induced by cardiotoxic therapy, and potentially life- threatening arrhythmias during acute leukemia therapy. By analyzing these clinical cases, we aim to comprehend the complex interactions between hematological conditions and cardiological complications, providing deeper insights into the diagnosis, treatment, and overall management of patients facing these challenges. The initial clinical presentation of hematological diseases can be highly diverse and, at times, manifest as urgent cardiac conditions that are crucial to recognize. Additionally, various cardiological complications arise during the course of treatment, associated with the administration of therapies.

KEYWORDS: Cardiovascular complications; Hematologic Diseases; Therapy

Polypharmacy as a cause of iatorgenic bone marrow aplasia

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INTRODUCTION: Bone marrow aplasia refers to those hematologic conditions that are caused by a marked reduction and/or defect in the pluripotent or committed stem cells, or the failure of the bone marrow microenvironment to support hematopoiesis. The clinical outcome is anemia, leukopenia, and/or thrombocytopenia. In this case report we will discuss polypharamcy as a cause of iatorgenic bone marrow aplasia.

CASE PRESENTATION: A 62-year-old patient was referred from Gospić Hospital due to suspected sepsis/neutropenia. The patient presented with complaints of a red right foot (without recent trauma) and feelings of tiredness and exhaustion. She is currently undergoing biological therapy for rheumatoid arthritis, and after her last cycle, she developed persistent fever. Initial laboratory results revealed pancytopenia. Two months prior to this event, her red blood cell count, platelets, and neutrophils were slightly lower than the reference values. Additionally, her C-reactive protein (CRP) was elevated at 241.4 mg/L, and her procalcitonin was also elevated at 4.030 microg/L, suggesting a possible septic condition. Microbiological tests returned sterile (antibiotics administered before blood sampling), and her right foot was diagnosed as cellulitis. The patient's chronic therapy includes etanercept, methotrexate, folic acid, teriparatide, diclo duo, decortin, pantoprazole, levotiroksin, normabel, and leflunomide. The patient received broad-spectrum antibiotics and underwent erythrocyte and platelet transfusions. After a few days of administration, her blood work improved, showing an increase in cell numbers such as erythrocytes, thrombocytes, and leukocytes. It is suspected that her extensive therapy, including biological treatment, may have led to bone marrow aplasia, resulting in pancytopenia and the subsequent development of sepsis.

CONCLUSION: While individually, these drugs may have various side effects, including effects on the blood and bone marrow, it's not common for them to cause aplasia of the bone marrow. However, certain combinations of medications could potentially increase the risk of bone marrow suppression because of their immunosuppressive effect.

KEYWORDS: Pancytopenia; Polypharmacy; Sepsis

Cause, Clinical Presentation and Complication of Pulmonary Embolism - case report

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INTRODUCTION: Pulmonary embolism is a common and potentially fatal condition. Despite advances in diagnostic procedures due to presentation with a non-specific clinical picture and symptomatology, almost one third of the patients remain undiagnosed and untreated. Pulmonary embolism is a potential cause of myocardial infarction with non-obstructive coronary arteries (MINOCA).

CASE PRESENTATION: A 63-years-old man came to the local ambulance due to inability to urinate and high temperature. Based on extensive laboratory analysis and ultrasound, diagnosis of prostatitis was made. He was given cefuroxime. After five days he gets high temperature again but this time followed with chills, shivering and chest pain. In emergency department he also stated presence of back pain for the last ten days that increases with deep breath in and does not go away after taking analgesic drug. He denied dyspnea, dizziness, loss of consciousness and pain in abdomen. One month ago he had lower extremity fracture treated conservatively for a month. Further examination indicated x-ray, which showed homogeneous mass on the basal and posterior side of the right lung. CT angiography confirmed pulmonary thromboembolism and lung infarction. On the color doppler signs of deep vein thrombosis were negative. Also urine culture showed big amounts of Pseudomonas aeruginosa. Patient was given low molecular weight heparin and cefuroxime. After four days patient came again to emergency department due to new onset of temperature that did not decrease after taking analgesic. ECG showed negative and biphasic T waves in lateral leads. Ultrasound also showed hypokinesia of interventricular septum and troponin in the serum was elevated. Coronarography was regular. Based on findings, patient had MINOCA. Prescribed treatment was meropenem still having catheter. After he was discharge from hospital he was constantly urinating the blood. After a month patient went under TURP and adenoma of prostate was proven.

CONCLUSION: Sometimes cause of worsening patient condition is not always clear. Whenever the patient has any of risk factor for PE we need to exclude PE. In this case risk factor was imobilization because of leg fracture.

KEYWORDS: Lower extremity fracture; Pulmonary embolism; MINOCA

Diagnostics and Treatment of Ethylene Glycol Poisoning: A Case Report

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INTRODUCTION: Ethylene glycol is a widely available alcohol that has extensive commercial use, mainly as the main ingredient in antifreeze. In cases of ethylene glycol poisoning, early diagnosis and intensive treatment are necessary to prevent long-term consequences or even death of the poisoned person [1,2] . This case report presents male patient, 43 years old, who is brought to the emergency department by an ambulance after he came home in a tractor from which his family pulled him out because he could not breathe or stand. Upon arrival at the emergency department, the patient is in a bad general condition, somnolent, respiratory insufficient, tachypneic and extremely agitated.

CASE PRESENTATION: The finding of acid-base status indicates severe metabolic acidosis. During the examination, cardiorespiratory arrest occurs, and cardiopulmonary resuscitation is started according to the ALS protocol. After successful resuscitation and diagnostic treatment, the patient is transferred to the intensive care unit and critical care measures are started. Continuous analgosedation was introduced and a nephrologist was consulted, who recommended renal replacement therapy. After antifreeze poisoning was suspected, the poison control center was consulted by phone in consultation with the parent laboratory, and an osmolar gap test was performed, which, along with the presence of calcium oxalate and the primary finding of the blood gas analysis, spoke in favor of antifreeze poisoning.

CONCLUSION: Ethylene glycol poisoning is relatively rare but requires immediate medical attention. This case emphasizes the current diagnostic problem and the lack of quick, available and cheap tests that would serve as a standard in the definitive diagnosis of ethylene glycol poisoning [3] . On the other hand, it highlights the importance of quickly establishing an accurate diagnosis and good cooperation between different medical branches.

KEYWORDS: Diagnosis; Ethylene Glycol; Poisoning

Necrotizing Fasciitis Complicated by Sepsis: A Case Report Induced by Streptococcus pyogenes Group A

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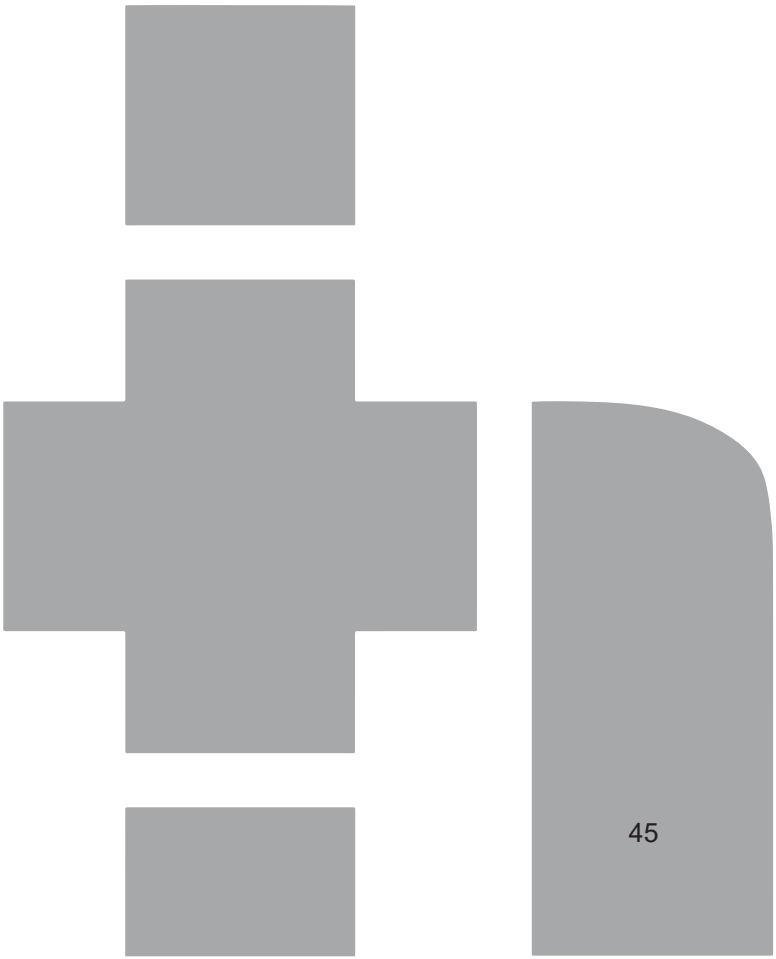
INTRODUCTION: Necrotizing fasciitis, a rapidly progressing soft tissue infection, poses a severe threat to patients' lives, therefore early and adequate treatment are essential. [1] This case report presents a male patient born on July 23, 1981, who presented to the Emergency Room of Clinical Hospital Centre Rijeka on December 7, 2023, with a swollen, red leg and elevated temperature of 39.8 Celsius. The patient reported four days of pain and difficulty walking. Despite antipyretic therapy, the fever persisted. The absence of chronic diseases and the family medical history indicated no predisposing factors. Physical examination revealed concerning red indurated findings on the thighs, leading to an initial diagnosis of cellulitis.

CASE PRESENTATION: Upon admission to the vascular surgery department, the patient underwent antibiotic therapy (cefazolin, clindamycin, ciprofloxacin) initiated by an infectious diseases specialist. Hemoculture revealed the presence of S. pyogenes group A. Despite initial treatment, the condition worsened, and on December 11, necrotizing fasciitis was diagnosed. An immediate fasciectomy of the left femoral region was performed. Subsequently, the patient developed acute prerenal kidney failure and sepsis, necessitating transfer to the intensive care unit. Orotracheal intubation, oxygen therapy, epidural catheter for pain management, and myringotomy with tubes for hyperbaric oxygen therapy were implemented. Plastic surgery interventions were required due to skin defects, highlighting the multidisciplinary approach to managing this critical case.

CONCLUSION: This case emphasizes the urgency of recognizing necrotizing fasciitis promptly, especially when caused by S. pyogenes group A. Timely intervention, including surgical debridement and supportive measures in an intensive care setting, played a crucial role in preventing further complications. [2] The collaboration between vascular surgery, microbiology, infectious diseases, anesthesiology and plastic surgery specialists underscores the importance of a multidisciplinary approach in managing complex cases of necrotizing fasciitis with sepsis. [3]

KEYWORDS: Necrotizing fasciitis; Sepsis; Streptococcus pyogenes Group A

POSTER PRESENTATIONS



Severe Respiratory Insufficiency as a Complication of Primary Hyperaldosteronism

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INTRODUCTION: Primary hyperaldosteronism (PH) is a condition of aldosterone oversecretion due to adrenal cortical hyperplasia or adrenal tumor, usually adenoma, leading to suppressed plasma renin activity (PRA), arterial hypertension and, occasionally, hypokalemia and metabolic alkalosis.

CASE PRESENTATION: A 61-year-old woman with a past medical history of resistant arterial hypertension, type 2 diabetes mellitus, schizophrenia and nicotinism, presented to the emergency department with general weakness, abdominal pain and loss of appetite. On physical examination, she was hypertensive with tachycardia and prolonged expiration with bronchitic murmurs over lungs. Severe hypokalemia (1,3 mmol/L), metabolic alkalosis (pH 7.588) and elevated creatinine kinase levels were detected. The ECG findings showed signs of hypokalemia and left ventricular hypertrophy which was confirmed by heart ultrasound. Abdominal CT revealed an expansive lesion of the right adrenal gland resembling adenoma. Serum aldosterone level was significantly elevated (820 pmol/L) with suppressed PRA (<0.2µg/L/h). Serum potassium levels normalized after parenteral and oral substitution. She had been lost to follow up for the next four years whereupon she presented to the emergency with shortness of breath. She was diagnosed with heart failure, atrial fibrillation and exacerbation of chronic bronchitis. Laboratory examinations showed hypokalemia (3,7 mmol/L), metabolic alkalosis (pH 7,47) and severe global respiratory insufficiency (RI) (pCO_2 9.4kPa, pO_2 4.12kPa, SpO_2 59%). She was admitted to the intensive care unit due to respiratory arrest and a need for mechanical ventilation. After recovery, further diagnostic workup confirmed PH with high aldosterone to renin ratio (ARR>262). After initiation of spironolactone, arterial pressure and serum potassium levels normalized, while bicarbonate levels significantly decreased.

CONCLUSION: Untreated PH potentiated with heart failure and exacerbation of chronic bronchitis can lead to severe RI requiring mechanical ventilation. Possible explanations for such RI include hypercapnia as compensation for severe metabolic alkalosis and respiratory muscle weakness due to hypokalemia with additional effects of heart failure and bronchitis.

KEYWORDS: Hypokalemia; Primary hyperaldosteronism; Respiratory insufficiency

Cardiac emergency as the first manifestation of B-cell non-Hodgkin's lymphoma with diffuse infiltration of the heart, anterior and middle mediastinum – case report

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INTRODUCTION: To present an unusual case of a patient referred urgently to a Cardiologist as part of the initial clinical presentation of an undiscovered and untreated lymphoproliferative disease with extra-nodal manifestation, i.e. diffuse infiltration of the heart, anterior and middle mediastinum.

CASE PRESENTATION: A 65-year-old female patient, urgently referred by a family medicine doctor, was admitted to the emergency department due to productive cough, dyspnea, fever, and lower values of hemoglobin. She states that in the past 4 months has lost between 15 and 20 kg of body weight. A 12-channel ECG revealed ST elevation in the posterolateral leads, suggesting urgent hospitalization at Cardiology department due to the suspicion of an acute coronary syndrome. Laboratory findings revealed microcytic anemia, lymphocytopenia, hypercalcemia, high NT-proBNP, high IgM, high creatinine, and urea with low eGFR suggestive of acute kidney injury. The acid-base status indicated partial respiratory insufficiency. As part of the evaluation, a chest X-ray was performed, revealing a fully enlarged heart as well as an enlarged shadow of the middle mediastinum, which was confirmed by a CT scan of the thorax and abdomen with additional finding of splenomegaly. By orientation ultrasound of the heart, the walls of the left and right ventricles were diffusely thickened with homogeneous malignant infiltration of the pericardial space and the surrounding mediastinum. Ultrasound of lymph nodes showed pathological lymphadenopathy in the right supraclavicular fossa, and suspicious lymphadenopathy in the left supraclavicular fossa and inguinal region. Pathohistological finding of expansive mediastinal formation, obtained by CT-guided transthoracic biopsy, confirmed non-Hodgkin's lymphoma with a differential diagnostic suspicion of lymphoplasmacytic lymphoma and lymphoma marginal zones.

CONCLUSION: The first clinical manifestation of non-Hodgkin's lymphoma can be an emergency such as cardiac infiltration presenting as an acute coronary syndrome.

KEYWORDS: Heart; Lymphoproliferative disease; Mediastinum; Non-Hodgkin's lymphoma

Diabetic ketoacidosis and brain edema in a seven- year- old boy: case report

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INTRODUCTION: Diabetic ketoacidosis presents an acute complication of type 1 diabetes. It is an emergency state defined by hyperglycemia, metabolic acidosis, and ketosis. Brain edema is a rare, but threatening consequence of diabetic ketoacidosis which almost exclusively occurs in children. Case presentation: A seven-year-old boy was admitted to the emergency pediatric clinic accompanied by his mother due to abdominal pains, vomiting, and weight loss. The patient had a poor appetite and was drinking a lot of fluids. During the examination, he exhibited a generally poor state and disordered vital parameters. He was tachypnoic and tachycardic, while his skin was pale and mottled. His extremities were cold. He seemed sleepy, languid, and smelled of acetone. A capillary blood test revealed high levels of glucose and ketones, as well as severe metabolic acidosis. He was admitted to the intensive care unit, where treatment was started according to the protocol: rehydration and introduction of insulin in infusion. In the eighth hour from the start of the treatment, there was a sudden onset of a severe headache, restlessness, and consciousness disorder. Due to suspicion of brain edema development, he received mannitol in therapy, and hydration was reduced to one-third. After reaching an improvement in the general condition, an emergency brain CT was performed. It showed normal findings. The patient recovered successfully and after two days was transferred to the endocrinology
department.

CONCLUSION: Diabetic ketoacidosis is one of the acute complications of type 1 diabetes, and often the first sign of the disease. The most serious complication of diabetic ketoacidosis is brain edema, which occurs in 0,5 – 1 % of cases and can result in fatal outcomes. Early recognition of neurological disorders, reduction of hydration, and anti-edematous therapy are crucial in brain edema development.

KEYWORDS: Brain edema; Diabetic ketoacidosis; Type 1 diabetes

Can not ventilate, can not intubate

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INTRODUCTION: Difficult intubation has been defined as one that requires external laryngeal manipulation, laryngoscopy requiring more than three attempts, intubation requiring nonstandard equipment, or the inability to intubate at all. The Mallampati score is a grading system based on visualization of pharyngeal structures, with scores of III or IV indicating heightened intubation difficulty.

CASE PRESENTATION: A 59-year-old obese man (BMI 37 kg/m²), American Society of Anaesthesiologists(ASA) score IIIE, presented to the Emergency department with vomiting and pain in the area of the umbilical hernia that lasted for 10 hours prior to admission. He was diagnosed with mechanical ileus due to incarcerated hernia. After an urgent preoperative evaluation, emergency surgery was performed. Nasogastric tube was inserted into the patient's stomach, with retention of intestinal content. Therefore, the face mask ventilation couldn't be performed because of the risk of pulmonary aspiration. Since the patient is obese, has a short neck and Mallampati score of IV, difficult intubation was expected. Rapid sequence intubation was planned for induction of anesthesia with propofol, sufentanil and succinylcholine. Decision has been made to attempt intubation with devices for difficult airway management rather than direct laryngoscopy. The attempts with a videolaryngoscope (D-blade), McCoy laryngoscope and flexible bronchoscope were all unsuccessful. To keep the patient sedated during attempts propofol boluses were given. Finally, he was intubated with direct laryngoscopy by two anesthesiologists. Because of laryngeal edema, antiedematous therapy with dexamethasone and calcium gluconate was given. The surgery was completed successfully, and the intubated and sedated patient was transferred to the intensive care unit. Seven days postoperatively, the patient was discharged with stable vital parameters and physiological functions.

CONCLUSION: Although there are many new techniques for difficult airway management in modern medicine, direct laryngoscopy still takes a very important place, mostly because it is widely available, cheap, and, sometimes, the only way to successfully intubate a patient.

KEYWORDS: Laryngoscopy; Hernia; Intubation; Ventilation

Awake endotracheal intubation in patient with history of difficulty intubation: case report

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INTRODUCTION: Endotracheal intubation during general anesthesia is a medical procedure often performed in operating rooms to provide effective delivery of anesthetic gases and airway protection during surgery. In some patients the procedure is difficult due to patient anatomy, pathological process, equipment limitations or stuff experience. When the endotracheal intubation is difficult, the awake endotracheal intubation can be performed. The aim of this case report is to present awake endotracheal intubation in a patient in whom it was an only option.

CASE PRESENTATION: A 56-year-old man suffered from breathing difficulty due to nasal septum deviation. He was scheduled for elective septoplasty. During induction of anesthesia and direct laryngoscopy, it was impossible to perform endotracheal intubation after several attempts including fiberoptic bronchoscopy. The patient was awakened and the difficulties in airway management was explained by the most experienced anesthesiologist. The patient insisted to be operated due to breathing difficulties he was suffering every day. At the patient's request, the patient was scheduled for another elective surgery five months later and awake intubation was suggested to him, to which he agreed. Awake endotracheal intubation was performed by local application of lidocaine and excellent cooperation with the patients. The course of anesthesia, surgery and postoperative were uneventful.

CONCLUSION: Endotracheal intubation is a life-saving procedure used in emergencies and in elective surgery when general anesthesia is applied and airway management is required. It provides safe delivery of anesthetic gases and keeps the airway open. In rare situations, when the endotracheal intubation is difficult, it is possible to perform awake endotracheal intubation with good cooperation of the patient.

KEYWORDS: Anesthesia; Endotracheal intubation; Nasal septum

Surgical management of traumatic grade IV kidney rupture - Case report

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INTRODUCTION: Most kidney injuries result from blunt trauma, like motor accidents, falls, or assaults. According to the American Association for the Surgery of Trauma, kidney injuries are classified into 5 grades. Severe cases (grade III, IV, V) necessitate surgery, while milder ones are managed conservatively. The aim of this case report is to show how timely treatment of severe kidney injury can result in a positive outcome.

CASE PRESENTATION: A 15-year-old boy came to the ER due to blood in urine after a bicycle fall impacting his left side of the body. He experienced nausea, vomiting stomach contents post-tramadol intake. During the physical examination, a contusion mark was seen on the left side of the hemithorax, painful on palpation. Painful left hemiabdomen with superficial skin abrasions in the lumbar region. Lab results showed elevated urea, creatinine, AST, lactate, and leukocytes but normal hemoglobin. Orientation ultrasound of the abdomen upon arrival showed an enlarged left kidney with obliterated structure surrounded by free fluid. A CT scan of the abdomen was performed, which showed a deep rupture of the left kidney involving the hilus with active bleeding into an extensive perirenal hematoma. An urgent left lumbotomy was initiated. During the operation, a kidney was shown with extensive intracanalicular rupture and decapsulation on 2/3 of its front surface. Extension sutures of the canal system was placed, Bioglue glue, Surgicel hemostatic mesh, and hemostatic parenchymal sutures were applied. The proximal end of the ureter was repaired and a JJ stent with a catheter was placed on the bag. Follow-up scans indicated hematoma regression without bleeding, leading to the patient's discharge for further care.

CONCLUSION: Kidney injuries often manifest as pain, shock, nausea, vomiting, trauma signs, and hematuria. Surgical intervention is essential for persistent bleeding or severe tissue damage. Timely and appropriate management generally results in an excellent prognosis, enabling healing and functional recovery.

KEYWORDS: Hematoma; Hematuria; Kidney injury; Lumbar region.

Polytrauma patient with pelvic fracture and lower limb amputation: case report

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INTRODUCTION: Polytrauma represents the simultaneous occurrence of severe injuries affecting two or more anatomical regions, with at least one presenting a potential life-threatening risk. Globally, traffic accidents stand out as the predominant cause of polytrauma.

CASE PRESENTATION: A 21-year-old male patient was admitted to the Emergency Department following a traffic accident. Upon admission, he displayed disorientation, tachypnea, tachycardia, and hypertension. Visible extensive bleeding from a laceration on the left groin, contusion of the left lower leg, and an open fracture of the left tibia along the entire length of the lower leg were noted. Computed tomography, adhering to polytrauma protocols, revealed traumatic dissection of the left external iliac artery resulting in compromised perfusion to the left leg, extensive contrast extravasation in the pelvic and left inguinal regions, pubic symphysis diastasis, and fractures of the left acetabulum, pubic bone, coccyx, tibia and fibula. The patient was promptly transferred to the operating room, where a transgenicular amputation of the left leg, closed reduction and fixation of the pelvis and evacuation of hemoperitoneum were performed. Massive transfusion protocol was activated, norepinephrine and vasopressin were administered, along with inotropic support. Subsequent extensive fluid replacement and transfusion of erythrocyte concentrate, fresh frozen plasma and platelets were continued. On the 6th day post-admission, a transfemoral amputation of the left leg was conducted due to necrosis of the amputation stump. Ongoing wound dehiscence on the stump and groin led to the initiation of vacuum-assisted closure therapy to facilitate granulation tissue formation. The patient is currently conscious, hemodynamically and respiratory stable and is undergoing further recovery in the Intensive Care Unit.

CONCLUSION: The intricate nature and multitude of injuries in polytrauma patients present a formidable challenge for healthcare professionals. Effectively addressing their treatment necessitates a collaborative, multidisciplinary approach involving surgeons, anesthesiologists, intensivists, radiologists, physiotherapists and other specialized practitioners.

KEYWORDS: Amputation, Surgical; Critical care; Fractures, multiple; Multiple trauma

Acute mitral insufficiency resulting from trauma: a case report

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INTRODUCTION: Acute mitral insufficiency is an urgent condition characterized by the sudden onset of symptoms and signs such as dyspnea, tachycardia, tachypnea, hypotension, cyanosis, jugular vein distension, and altered consciousness. This condition occurs with the spontaneous rupture of tendinous cords, rupture of papillary muscles following myocardial infarction, and as a consequence of endocarditis and trauma. Acute mitral insufficiency can lead to acute pulmonary edema, heart failure with cardiogenic shock, respiratory arrest, and sudden cardiac death, requiring prompt surgical intervention.

CASE PRESENTATION: A 58-year-old female was brought to the ER due to multiple injuries caused by a fall from the fourth floor. Upon arrival, the patient was disoriented, hypotensive, tachycardic, tachypneic, and had an open wound on the left thigh measuring 7 cm in diameter. An emergency CT scan for polytrauma protocol revealed fractures of the left nasal bone, C2 and C7 vertebrae, L1-L5 vertebrae, right ribs 1-9, left scapula, pubic and iliac bones, and left femur. Contusional lesions were also observed in both kidneys, liver, and spleen, along with a hemopneumothorax. Upon admission, exploratory laparotomy and external fixation of the pelvis and left femur were performed. A right-sided chest tube was inserted for hemopneumothorax, followed by a splenectomy due to spleen rupture. After consultation with a cardiologist, an echocardiogram revealed severe mitral insufficiency and rupture of the posterior mitral valve leaflet. Following consultation with a cardiothoracic surgeon, mitral valve replacement was performed. Intraoperatively, a rupture of the posterior leaflet was confirmed, and a mechanical valve was implanted. The patient was transferred to the traumatology department and recovered well.

CONCLUSION: Although rare, acute mitral insufficiency can be caused by trauma, and it requires urgent surgical management. In polytrauma, it is important to consider not only fractures and internal organ injuries but also some less common injuries such as valvular pathology presented in the case.

KEYWORDS: Mitral valve; Mitral valve insufficiency; Multiple trauma

Revealed Cerebellar Infarction in the Setting of Second – Degree Heart Block: A Case Report

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INTRODUCTION: Cerebellar strokes constitute 2% to 3% of all strokes, often presenting with nonspecific symptoms such as dizziness, nausea, vomiting, and headache. The diagnostic challenge intensifies when these symptoms overlap with other life-threatening conditions. We report a case where suspected cardiac etiology raised difficulties in proper diagnosis, highlighting the complexities in differentiating between cerebellar strokes and other critical medical conditions.

CASE PRESENTATION: A 66-year-old male sought medical attention with complaints of weakness, cold sweats, nausea, and vomiting. Notably, he had a history of myocardial infarction a decade prior. Examination in the Emergency Medicine department unveiled hypertension accompanied by bradycardia. The electrocardiogram (ECG) revealed a 2nd-degree AV block: Mobitz I, raising suspicion of myocardial infarction. Aspirin was administered, and troponin levels were assessed; however, relentless vomiting prompted a neurological examination. Notably, a brief vertical nystagmus was detected. Subsequent CT brain scan disclosed a left cerebellar hemisphere infarction attributed to occlusion of the left vertebral artery (V3-V4 segments) and left posterior inferior cerebellar artery (PICA). The patient received dual antiplatelet therapy and low molecular weight heparin for thromboprophylaxis. While in the neurological intensive care ward, he developed transient left peripheral facial paresis and right hemiparesis. Ischemic cardiomyopathy was detected on a heart ultrasound, prompting a modification in cardiologic treatment. Upon discharge, the patient exhibited discrete facial palsy, ataxia, and sinistropulsion.

CONCLUSION: The multidisciplinary approach involving antiplatelet and anticoagulant therapies, alongside cardiologic intervention, resulted in a complex but ultimately successful management strategy. The intersection of cardiovascular and neurological manifestations emphasizes the need for a comprehensive diagnostic and therapeutic strategy. This case illuminates the critical importance of early detection, particularly in rare scenarios like cerebellar strokes compounded by concurrent life-threatening pathologies such as ischemic cardiomyopathy.

KEYWORDS: Atrioventricular block; Cardiomyopathy; Cerebellar Diseases; Stroke

Etiological Challenges in an Acute Infant Encephalopathy: A Shaken Baby Syndrome Case Report

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INTRODUCTION: Shaken Baby Syndrome (SBS), a severe infant brain injury from violent shaking, exhibits the classical triad: encephalopathy, subdural hematoma, and retinal hemorrhage. With around 35 cases per 100,000 infants, diagnosis is challenging, and treatment is primarily supportive. Our aim is to present the rare etiology of an acute encephalopathy in the pediatric population.

CASE PRESENTATION: A 5-month-old infant was admitted to the Pediatric Intensive Care Unit after experiencing a suspected epileptic seizure. Heteroanamnesis from the mother reported symmetrical lower limb spasms and unilateral head and eye deviation lasting 45 minutes, with no history of prior diseases or therapies. Upon exam, the infant was hemodynamically and neurologically stable, afebrile and appeared not seriously ill. The physical exam displayed a prominent neurocranium (head circumference (HC) - 45.5 cm, >99th percentile; Z 2.96), a bulging fontanelle and a fresh earlobe excoriation. Laboratory and electroencephalography findings were unremarkable. Due to inconsistent maternal heteroanamnesis and physical exam findings, suspicion arose regarding shaken baby syndrome (SBS). Retinal fundus examination showed bilateral fresh retinal hemorrhages, prompting a brain computed tomography (CT) scan that revealed bilateral intradural hemorrhages, small parenchymal bleeding, separated cranial sutures, and signs of hydrocephalus. Neurosurgical intervention was recommended for a progressive hydrocephalus observed in the follow-up brain CT. Two silicone catheters were placed in the subdural space for decompression and evacuation of hemorrhagic content. Postoperative CT scans showed regression of subdural collections and suture approximation. The HC measured 32 cm (1.c; Z 2,19). The infant was clinically stable without neurological sequelae and discharged. A protective services intervention removed the infant from the family.

CONCLUSION: This case emphasizes the significance of thorough history-taking and examination during emergencies, especially in non-verbal children and infants. Etiological treatment and prompt suspicion, even for rare causes of encephalopathy, are crucial to prevent further infant trauma.

KEYWORDS: Child Protective Services; Hydrocephalus; Pediatric Emergency Medicine; Shaken Baby Syndrome

Psychogenic polydipsia as a cause of water intoxication and severe hyponatremia: a case report and treatment insights

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INTRODUCTION: Water intoxication is a rare but serious condition leading to acute hyponatremia. This is a medical emergency with a variety of clinical features including nausea, vomiting, headache, seizures, decreased level of consciousness including coma, and in extreme cases death due to brain herniation.

CASE PRESENTATION: We present a 27-year-old woman found at home in an unconscious state. Upon the arrival of emergency services, she had a grand mal epileptic attack treated with diazepam 10 mg intravenously. At the hospital, the patient was stuporous, in hypertonus with flexed hands and feet. Pupils were mildly mydriatic and poorly responded to light. Severe hyponatremia (sodium 110 mmol/L, plasma osmolality 227 mOsm/L, spot urine sodium 22 mmol/L) was found. Initially, she received a hypertonic sodium solution, resulting in an acute increase of sodium to 115 mmol/L. Heteroanamnesis revealed that in recent months, following a stressful event, she has been consuming enormous amounts of water. This supported the diagnosis of psychogenic polydipsia leading to severe hyponatremia. In the following 7 hours, she excreted 9 liters of dilute urine due to a natural physiologic response through antidiuretic hormone hypersecretion. The abrupt increase in sodium level was managed through the administration of 5% glucose and desmopressin. Despite an initial increase in sodium, she remained unconscious until the third day of the hospital stay. The diagnostic tests (CT and MR of the brain, cerebrospinal fluid analysis, and electroencephalography) demonstrated no additional central nervous system pathology. Further treatment for psychogenic polydipsia involved consultation with a psychiatrist.

CONCLUSION: Psychogenic polydipsia may cause dangerous hyponatremia. While patients with primary polydipsia generally are at low risk of osmotic demyelination syndrome, cautious sodium correction of up to 6 to 8 mmol/L in any 24-hour period is advised if the duration of hyponatremia is unknown and the initial sodium level is below 120 mmol/L.

KEYWORDS: Hyponatremia; Polydipsia, Psychogenic; Water Intoxication

Syncope as the first manifestation of a malignant disease

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INTRODUCTION: Malignant diseases in children can present as oncological emergencies. Mediastinal tumors and central intrathoracic lymphadenopathy, with or without pericardial and pleural effusion, are relatively common in children and can cause superior vena cava syndrome or superior mediastinal syndrome (SMS). They are most commonly caused by T-cell non-Hodgkin lymphomas and leukemias. The aim of this study is to present SMS in patients with T-NHL.

CASE PRESENTATION: A fifteen-year-old girl was admitted to Pediatric Clinic due to loss of consciousness preceded by dizziness and ringing in the ears. Immediately after, she experienced a brief episode of facial and lip flushing. Upon regaining consciousness, she complained of ringing in the ears, dizziness, and abdominal pain. Upon admission, her vital signs were normal, but 4 hours later, her general condition worsened, with pronounced SMS (facial and neck swelling, jugular vein distention, perioral cyanosis, orthopnea, tachydyspnea). Auscultation revealed diminished breath sounds basally. She had a distended abdomen with hepatomegaly. Due to worsening condition, she was transferred to the Intensive Care Unit where urgent diagnostic workup confirmed a mediastinal mass with extensive pericardial and bilateral pleural effusions. The patient was electively intubated and mechanically ventilated. MSCT of the thorax and abdomen was performed on the second day, pericardial and pleural drainage and bone marrow puncture on the third day. The material was sent for cytology, immunophenotyping, cytogenetics and molecular genetics. Considering the vital threat, therapy was initiated for the most probable diagnosis of T-NHL, cytoreductive therapy with tumor lysis syndrome prevention. The diagnosis was later immunocytochemically confirmed, T-NHL stage III. Active pericardial drainage was conducted for 4 days, pleural drainage for 7 days, and the patient was extubated on the seventh day. These measures achieved patient stabilization along with regression of the mediastinal tumor and nearly complete resolution of all effusions.

CONCLUSION: Mediastinal tumors can lead to SMS which, besides venous obstruction, can present with neurological and respiratory symptoms. Approximately 20% of patients will experience syncope. Timely recognition and management of such patients play a crucial role in treatment outcomes.

KEYWORDS: Syncope; Pericardial effusion; Pleural effusion; Pediatrics; T-cell non-Hodgkin lymphoma

Cesarean scar pregnancy: a case report

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INTRODUCTION: Cesarean scar pregnancy (CSP) is an extremely rare form of ectopic pregnancy in patients with a history of cesarean section. It is characterized by the abnormal implantation of an embryo within the myometrium and fibrous tissues of a previous scar which can lead to emergency conditions such as uterine rupture, placenta accreta, and uncontrolled bleeding.

CASE PRESENTATION: A 32-year-old woman was reffered to Department of Gynecological Endocrinology from secondary care center after being diagnosed with CSP. She had cesarean section in 2018 and vaginal birth in 2019. On examination, she had uncontrolled vaginal bleeding, vital signs were stable with no abdominal tenderness. Per speculam examination showed no pathological signs. Palpation revealed enlarged, softened and painless uterus. Transvaginal sonography showed uterus in anteroversion, measuring 91x47mm. An irregular gestational sac (GS) measuring 15mm with a yolk sac of 4.6mm without clear embryonic organization was seen in the area of the uterotomy. The distance between GS and uterine serosa measured only 28mm. No free fluid has been found in c.Douglasi. Laboratory analysis showed a hemoglobin level of 127 g/L, correct coagulation, and a β-hCG level of 14271,31 IU/L. Remaining laboratory values were within normal limits. CSP can be managed conservatively or surgically, but there is no standardized approach for its treatment. Management decisions are dictated by gestational age and size, clinical stability, and patient's desire for future fertility. This case was surgically managed by performing Karman endometrial aspiration followed by dilatation and curettage. Correct hemostasis and no active bleeding were observed at the end of procedure.

CONCLUSION: CSP represents a rare but life-threatening condition with a high risk of serious complications. No treatment consensus presents therapeutic challenges and shows how individualized treatment and prompt diagnosis are critical for reducing complications and preserving fertility.

KEYWORDS: Cesarean Section; Dilatation and Curettage; Ectopic Pregnancy

Rhabdomyolysis, alcohol ketoacidosis, and aspiration pneumonia in a patient with severe alcohol withdrawal

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INTRODUCTION: Rhabdomyolysis represents a medical emergency characterized by muscle necrosis and the release of intracellular muscle constituents into the circulation. One of the causes is alcohol withdrawal syndrome due to ATP depletion in a hyperkinetic state.

CASE PRESENTATION: A 32-year-old male was admitted to the Emergency Department (ED) after being found unconscious. Laboratory workup revealed liver lesion (ALT 123 U/L, GGT 448 U/L) and mild thrombocytopenia (120 x 10 9 /L), presumably due to alcohol dependence. Ethanol at admission was 0.3 g/L and CK 316 U/L. The patient was initially treated in the ED where he was physically restrained and examined by a psychiatrist due to severe agitation in the context of alcohol withdrawal syndrome. During the three days of management in the ED, he received high doses of diazepam (around 70 mg daily) along with fluid and thiamine administration and other supportive measures, but the withdrawal state persisted with continuous tachycardia (130/min), tachypnoea (18/min), agitation and a rise of CK to 8982 U/L with a brown-colored urine. Therefore, he was admitted to the Intensive care unit (ICU) due to rhabdomyolysis and a risk for AKI. Acetone-like breath scent was noted and ketone bodies in blood were 5.2 mmol/L with normoglycemia, fitting into the diagnosis of alcoholic ketoacidosis (pH 7.33, BEecf -10.1 mmol/L). Aggressive fluid administration with urinary alkalinization was started to prevent AKI and forced urine output of around 200 ml/h was achieved. Alcohol withdrawal was treated with massive doses of intravenous diazepam (310 mg in the first 24 hours). Aspiration pneumonia was treated with ceftriaxone and clindamycin. He fully recovered after seven days of hospital stay.

CONCLUSION: Severe alcohol withdrawal represents a medical emergency with several possible complications including rhabdomyolysis. The mainstay of treatment involves massive doses of intravenous benzodiazepines along with monitoring and supportive treatment in the ICU.

KEYWORDS: Alcohol Withdrawal Delirium; Diazepam; Rhabdomyolysis

The Utilization of VA-ECMO in Septic Shock and Pneumonia – A Case Report

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INTRODUCTION: Veno-arterial extracorporeal membrane oxygenation (VA-ECMO) is the most advanced temporary life support system that provides immediate hemodynamic support and gas exchange. It is used for cardiac and respiratory failure, where conventional management is unsuccessful.

CASE PRESENTATION: A 68-year-old female came to the emergency room because of dyspnoea, a high fever, and chest pain. She was in poor general condition, with a respiratory rate of 50 breaths per minute, oxygen saturation of 82%, bilateral expiratory coarse crackles, high inflammatory markers, and a detected Streptococcus pneumoniae. To correct hypoxemia, she was put on non-invasive ventilation (NIV), with a high FiO_2 . The X-ray showed signs of bilateral pneumonia and right-sided pleural effusion and she was diagnosed with septic shock. She developed metabolic acidosis and was put on a ventilator, treated with vasoconstrictors, and transferred to the intensive care unit (ICU). That afternoon, with FiO_2 80% and PEEP 12, she wasn't improving, so implantation of VA-ECMO was indicated. On the 5th day of treatment, the CT scan showed signs of tension pneumothorax and atelectasis of the right lung, with necrosis and cavitations in the upper lobe, so a right upper lobectomy was done. 4 days later, the patient was stable enough to be moved back on the ventilator but still suffered from atrial fibrillation with a fast ventricular response that could not be converted to a sinus rhythm. A VVI temporary pacemaker was implanted, which significantly improved the patient's condition, and 6 days later, she was taken off the ventilator, and the pacemaker was removed. After 22 days of treatment, the patient was stable, able to walk with assistance and eat and drink independently.

CONCLUSION: VA-ECMO is an invasive form of treatment used to bypass the time between critical and stable conditions of the patient. Its timely application can greatly improve the patient's chances of recovery.

KEYWORDS: Pneumonia; Septic shock; VA-ECMO

Henoch-Schonlein purpura in pregnancy: Case report

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INTRODUCTION: IgA vasculitis (Henoch-Schonlein purpura) is a disease that affects small blood vessels in the skin, kidneys, and digestive tract. The changes that occur in the vessels are the result of the accumulation of IgA antibodies in the walls of small blood vessels. This case report aims to present a 40-year-old pregnant woman with IgA vasculitis who gave birth to a healthy child without complications.

CASE PRESENTATION: A 40-year-old pregnant woman with her first child in the 24th week of gestation was admitted to the gynecology department after several examinations in the emergency department, where no diagnosis was made. Upon admission to the hospital, the patient reports fever with chills up to 39˚C and pains in the area of the leg joints, with a petechial rash on the feet, the pain also affects the hands, shoulders, and neck. In gynecological history, the patient has two miscarriages and CIN III, which was treated. First menstruation was at the age of 12, menstrual cycles are regular. Now pregnant with gestational diabetes, thrombocytopenia, and IgA vasculitis. The next hospitalization followed in the 38th week of pregnancy due to the rupture of the membranes and labor. The delivery was spontaneous cephalad, induced with oxytocin. Left-sided episiotomy was performed. She gave birth to a male child weighing 3330 grams, length of 48 cm, head circumference of 34 cm, and Apgar Score 10. The postpartum course was normal and the patient was discharged from the clinic with iron and vitamin C prophylaxis.

CONCLUSION: IgA vasculitis is an uncommon disease rarely seen in adults. Recovery is often spontaneous and the effects on pregnancy are unclear. From the case report, we can see how the mother gave birth to a healthy child without major complications.

KEYWORDS: IgA Vasculitis; Pregnancy, High-Risk; Purpura

Pregnancy in a patient with end-stage renal disease treated with haemodialysis– Case report

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INTRODUCTION: Chronic kidney disease involves a gradual loss of kidney function. Pregnancy in a patient in the terminal stage of chronic kidney disease is extremely rare, with a reduced fertility rate in women on dialysis. The aim of this case report is to describe a pregnancy on hemodialysis.

Case presentation: The 25-year-old female patient was admitted in the 26 th week of pregnancy. She stated that the pregnancy was conceived spontaneously and that she didn't know about it until the 25 th week of gestation. Considering the personal anamnesis of terminal chronic kidney disease, primary hyperoxaluria secondary hyperparathyroidism and symmetrical osteoarthritis the pregnancy was considered high-risk. For the last two years, the patient has been on hemodialysis due to chronic kidney failure, which she performed five times a week. During pregnancy, antibiotics were prescribed on several occasions due to urinary infections. Polyhydramnios was diagnosed at the gynecologist's check-up in the 36 th week. In the 37 th week of pregnancy, considering fetal maturity, it was decided to perform an elective caesarean section. After the patient was admitted to the clinic, the fetus was examined, which revealed occipital head position and chronic placental insufficiency with consequent fetal growth restriction. In the 37 th week, a healthy male child was born weighing 2450g, a length of 45cm, head circumference of 32cm and an Apgar score of 10/10 by elective caesarean section. Due to elevated inflammatory parameters and febrility on three occasions, ceftriaxone sodium was prescribed in agreement with the nephrologist. Postpartum recovery with regular hemodialysis went well and the patient was discharged from the clinic.

CONCLUSION: Pregnancy in women on haemodialysis is high risk for both the mother and child, but there are rare cases like this when the pregnancy is carried to term.

KEYWORDS: Chronic kidney disease; Haemodialysis; Hyperoxaluria; Pregnancy

Vesicouterine fistula following caesarean section: a case report

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INTRODUCTION: Vesicouterine fistulas are pathological communications between the bladder and the uterus. They occur in only 1-4% of all genitourinary fistulas. Vesicouterine fistulas mostly develop due to iatrogenic causes, such as caesarean section. Due to the increasing number of caesarean sections, the incidence of vesicouterine fistulas is also increasing. The aim of this case report is to present a patient with a vesicouterine fistula that occurred following caesarean section and resulted in urosepsis and spontaneous abortion.

CASE PRESENTATION: A 33-year-old woman gave birth to her first child in May 2022 by caesarean section, which was complicated by a bladder lesion. Subsequently, the patient had a urinary catheter for a month, resulting in urinary incontinence. In September 2023, she was presented to an external hospital in the 15th week of pregnancy with signs of urosepsis. During the diagnostic work-up, E. coli was isolated from the patient's urine. During hospitalization, a patient had a spontaneous abortion, which was completed instrumentally due to residual placental tissue. Consequently, the patient underwent a CT cystography and cystoscopy, which revealed vesicouterine fistula extending from the dorsal wall of the urinary bladder, along the diverticulum, towards the uterus and vagina. After K. pneumoniae was isolated from the urine culture in November 2023, a patient was treated with antibiotics, and in December 2023, preoperative treatment started. Firstly, a patient had a JJ stent inserted in both of her ureters. The patient underwent relaparotomy, excision and closure of the vesicouterine fistula. After a successful operation, the patient was discharged with a urinary catheter. Further follow-up by a urologist and gynecologist was indicated.

CONCLUSION: Although vesicouterine fistula is a rare complication of caesarean section, early recognition and operative treatment are necessary to improve the quality of patients' lives and reduce the possibility of complications.

KEYWORDS: Abortion; Caesarean section; Vesicouterine fistula

Septic shock in 7-year-old Covid-19 positive child due to bilateral pleuropneumonia caused by Streptococcus pyogenes; Case Report

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INTRODUCTION: Septic shock in children, the most severe complication of sepsis, is a life-threatening condition characterized by a critical reduction in tissue perfusion due to a dysregulated response. An early, compensated stage of shock may present with maintained blood pressure and tachycardia, progressing to hypotension in the uncompensated stage. Shock manifestations include cool extremities, delayed capillary refill, decreased alertness and reduced oxygen saturation. Prolonged tissue hypoperfusion can rapidly lead to multiorgan dysfunction syndrome and death.

CASE REPORT: A 7-year-old boy was admitted to the pediatric intensive care unit on the third day of illness with a clinical presentation of septic shock. His symptoms began with high fever and coughing, progressing to right chest pain and the development of a rash by the day of admission. Physical examination revealed signs of shock, along with pathological auscultatory and percussion findings over the right chest, conjunctival injection, a maculopapular rash on the neck and trunk, and enlarged neck lymph nodes. After initial shock treatment, an antigen rapid test confirmed a Sars-CoV-2 infection. As this expanded the differential diagnosis to multisystem inflammatory syndrome and Kawasaki disease, the patient received intravenous immunoglobulin. Further radiological diagnostics verified bilateral pleuropneumonia, more pronounced on the right, leading to the performance of right-sided pleural drainage. Pyogenic streptococcus was identified in the blood culture using PCR technique.

CONCLUSION: Despite complications of Covid-19 pneumonia with Streptococcus pyogenes infection, resulting in the rapid onset of septic shock, early treatment of shock and infections caused a positive outcome. This underscores the importance of early identification and prompt initiation of treatment for sepsis and septic shock.
Keywords: Pleuropneumonia; Shock, Septic; Streptococcus pyogenes

Eczema herpeticum Kaposi – a medical emergency in a patient with atopic dermatitis: A case report

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INTRODUCTION: Eczema herpeticum Kaposi is a disseminated skin infection caused by herpes simplex virus (HSV)-1 or HSV-2 occurring in patients with underlying chronic skin diseases such as atopic dermatitis and Darier's disease. This work aims to point out the importance of immediate diagnosis and early introduction of antiviral therapy.

CASE PRESENTATION: An eighteen-year-old female patient with previous history of atopic dermatitis was admitted to the emergency department due to the appearance of bilateral eyelid edema and erythema. The symptoms started manifesting three days earlier. Emergency room physician diagnosed her as having a reaction to an insect bite. Since there was no improvement to the prescribed therapy with metylprednisolone and diclofenac, the patient was referred to an ophthalmologist. She was then diagnosed with blepharoconjunctivitis and was started on oral co-amoxiclav and azithromycin, along with topical chloramphenicol ointment. After two days of therapy, the ophthalmologist noticed further worsening of the condition and urgently referred the patient to a dermatologist. A dermatological examination revealed severe edema and erythema of eyelids with multiple densely distributed, hemorrhagic, punctate erosions and some yellowish crusts involving the skin of the forehead, eyelids, and cheeks. There was also pityriasiform scaling and slight erythema involving her lower face, perioral and neck area. Serology yielded a positive result of IgG for HSV-1, and Staphylococcus spp. was isolated from a skin swab. The patient was diagnosed with atopic dermatitis with secondary complications, including a herpetic and a bacterial infection. Therapy with intravenous acyclovir, intravenous cefazolin, topical tobramycin, and topical anti-inflammatory therapy was given throughout 7 days of hospitalization, and the patient was discharged with a recommendation to continue therapy with acyclovir and cephalexin for the next 3 days.

CONCLUSION: Timely recognition of the disease enables early initiation of antiviral therapy, which is crucial in controlling disease progression and ensuring optimal outcomes for patients. Early intervention not only alleviates the severity of symptoms but also reduces the risk of complications such as disseminated infection or systemic involvement.

KEYWORDS: Acyclovir; Atopic dermatitis; Eczema herpeticum; Herpes simplex virus

Exacerbation of glaucoma – case report

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INTRODUCTION: Glaucoma is a common disease of the optic nerve characterised by specific progressive changes in the optic nerve that lead to deterioration of the visual field and loss of visual function. In an acute glaucoma attack, there is a sudden increase in intraocular pressure accompanied by characteristic symptoms such as painful and red eye, blurred vision and unilateral headache with nausea and vomiting. It is an urgent condition which, if left untreated, can result in permanent damage of the optic nerve.

CASE PRESENTATION: An 80-year-old patient presented to the emergency department with complaints of headache and nausea that started yesterday. She also experienced pain in the left eye and had vomited three times. She reported an episode of chest pain that occurred yesterday morning and lasted for a few minutes. Additionally, she mentioned a hand tremor that began a few months ago and was particularly pronounced since yesterday, and difficulty walking starting today. The patient did not initially disclose a history of chronic glaucoma treatment. Clinical examination revealed erythematous sclera and conjunctiva, and a dilated pupil of the left eye which was initially perceived as incidental. After internal medicine evaluation, she was examined by an emergency medicine specialist who raised the suspicion of acute glaucoma and consulted the on-call ophthalmologist, and an exacerbation of glaucoma was diagnosed. With the prescribed therapy the patient felt subjectively better and was referred for urgent follow-up by an ophthalmologist.

CONCLUSION: Acute glaucoma is a frequent ophthalmological emergency and one of the leading causes of blindness in the world. A fast and accurate diagnosis of acute glaucoma is crucial for initiating prompt therapy and preserving visual function.

KEYWORDS: Eye; Glaucoma; Headache; Optic nerve

Antifreeze (ethylene glycol) poisoning - a case report

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INTRODUCTION: Antifreeze poisoning is a condition which can manifest as multiple organ dysfunction syndrome and usually patients have altered level of consciousness with severe metabolic acidosis with high anion gap.

CASE PRESENTATION: A 42-year-old male patient was brought to the Emergency department because his family noticed that he had difficulty breathing and was unable stand up after he went for a drive on his tractor. He was somnolent, dyspnoeic and denied any incidents. A severe metabolic acidosis with high lactate levels was present. He also had signs of acute kidney failure with hyperkalaemia. Shortly after the initial assessment he went into cardiac arrest. CPR was performed. After the return of spontaneous circulation he was admitted to the intensive care unit (ICU), where further drop in pH and elevation of lactate were noted (28 mmol/L), with high anion gap. Renal replacement therapy was initiated. All likely causes were excluded, apart from poisoning from an unknown agent. Acute ethanol intoxication was excluded. After a consult with toxicology, the police were sent to the scene to try to determine the possible toxin. Nothing significant was found. Considering the incident involved a motor vehicle, an antifreeze poisoning was suspected, confirmed by laboratory testing and 10% ethanol therapy via a nasogastric tube was conducted for 24 hours. He also developed a coagulation disorder. He received RRT for 8 days. The treatment was complicated with delirium and a percutaneous dilatative tracheotomy was performed to facilitate weaning. He stayed in the ICU for 12 days and fully recovered.

CONCLUSION: It was very difficult to recognize antifreeze poisoning in this patient. Although this patient almost died from the poisoning, with proper action, his life was saved. How the poisoning happened remains unknown.

KEYWORDS: Acidosis; Ethylene Glycol; Multiple Organ Failure

Emergency management of bleeding in case of uterine atony – A case report

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INTRODUCTION: Uterine atony is a serious emergency in the fourth stage of labor, characterized by the diminished natural tension of uterine muscles and their inadequate contraction following childbirth. It leads to significant hemorrhage and symptoms such as hypotension, tachycardia, dizziness, skin pallor, and loss of consciousness. Risk factors include uterine overstretching, prolonged labor, and accelerated labor.

CASE PRESENTATION: A 33-year-old female with gestational diabetes and a post-term pregnancy at 40 weeks, underwent induced labor with prostaglandin gel. Vaginal delivery proceeded smoothly, without complications and an episiotomy was performed. Two hours postpartum, the patient experienced vaginal bleeding. Vital signs revealed a blood pressure (BP) of 85/56 mm Hg and a heart rate (HR) of 96/min. A follow-up complete blood count and coagulogram were performed, revealing anemia (hemoglobin: 82 g/L). Primary intervention included saline solution and oxytocin, administered twice to address persistent bleeding and stabilized blood pressure. The recurrence of vaginal bleeding led to cervical revision with no lacerations observed. A Bakri balloon was placed as a second-line tamponade, followed by blood transfusions which stabilized the vital signs. The following morning, the patient was oliguric and felt unwell with vital signs indicating hemorrhagic shock (HR 150/min, BP 80/50 mmHg). During uterine massage, a balloon with clots fell out. In consideration of the patient's well-being, a postpartum hysterectomy with bilateral salpingectomy was performed. Throughout the course of treatment, the patient received blood transfusions, antibiotics, and anticoagulant prophylaxis. The patient was discharged after 6 days. Follow-up revealed no signs of bleeding, with normal vital parameters and subjective improvement.

CONCLUSION: Timely risk assessment and intervention are crucial in addressing this pathology, given its potential for fatal outcomes. Initial conservative treatments, such as medications and Bakri balloon, are vital to preserving the possibility of future pregnancies in affected patients.

KEYWORDS: Histerectomy; Salpingectomy; Uterine atony

From malignant hypercalcemia to the systemic sarcoidosis diagnosis: A case report

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INTRODUCTION: Hypercalcemia can be a life-threatening condition that requires urgent therapy to reduce damage to various organs, and its causes can be diverse. One of the causes can be systemic sarcoidosis, and therefore, this presentation will highlight multiple damages requiring immediate intervention.

CASE PRESENTATION: A 52-year-old male presented to the emergency department with severe muscle pain and cramps, intense itching of the skin, dry red conjunctivae, somnolence, and acute renal injury. Physical examination revealed enlarged inguinal lymph nodes. Laboratory findings: RBC(3.12 x 10^12/L), HGB(99g/L), HCT(0.286 L/L), ESR(126 mm/3.6 hr), urea(20.6 mmol/L), creatinine(570 µmol/L), eGFR(9 ml/min/1.73 m^2), ClCr(7.6 ml/min), Na(135 mmol/L), K (5.0 mmol/L), urine: RBC(113). Additional tests showed Ca(3.47 mmol/L), vitamin D3(25-OH)(48 nmol/L), PTH(1.25 pmol/L), ACE(143 U/L), phosphates(1.48 mmol/L). Chitotriosidase(1080 mU/ml)[RI: 0-200 mU/ml]. The Quantiferon test for M. tuberculosis was negative. Ultrasound of the inguinal region showed bilaterally enlarged lymph nodes up to 4 cm. CT scan of chest, abdomen, and pelvis: enlarged mediastinal, hilar, inguinal, and axillary lymph nodes. PHD of inguinal lymph node: histologically completely altered, diffusely infiltrated with large granulomas composed of histiocytes. Numerous multinuclear giant cells were present. The findings corresponded to granulomatous lymphadenitis. Kidney biopsy result: at the level of light immunofluorescence microscopy, the finding corresponded to interstitial nephritis with significant activity and numerous calcifications. The obtained findings (hypercalcemia, ACE, chitotriosidase, PHD of lymph node – granulomatous inflammation, and kidney biopsy findings), confirmed the diagnosis of systemic sarcoidosis – a multisystem granulomatous disease of unknown etiology. The patient started initial treatment with prednisolone (1 mg/kg per day), denosumab (60 mg s.c.), furosemide (40 mg daily) and NaCl infusion with diuresis control. Orally hydrated. The applied therapy led to an adequate response, moderate recovery of renal function, and reduction of calcium to the upper limit of normal.

CONCLUSION: The best way to quickly detect the condition is to be familiar with algorithms for specific conditions, which can lead to faster diagnosis and therapeutic interventions, especially in preventing permanent damage, as in this case.

KEYWORDS: Chitotriosidase; Granulomas; Hypercalcemia; Sarcoidosis.

Hemodynamically unstable pulmonary embolism treated with mechanical thrombectomy – a case report

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INTRODUCTION: A 75-year-old woman presents to the emergency department complaining of shortness of breath lasting approximately one week. The patient was dyspnoic at rest and whilst speaking, complains of nausea without vomiting with a dry cough and is afebrile. The patient is being treated for hypertension, Hashimoto thryoiditis, was previously surgically treated for adenocarcinoma of the colon and has been treated for bilateral pulmonary emboli (PE).

CASE PRESENTATION: The initial diagnostic work up showed elevated troponin levels, incresed D-dimers, increased NTproBNP and decreased oxygen saturation. On X- ray there were no signs of pulmonary congestion and no signs of acute left heart failure. The work up continued with an emergency computed tomography angiography (CTA), which showed PE in both the left and right pulmonary arteries with segmental involvement, the diagnosis of PE was established. Due to elevated troponin levels, bedside echocardiography was performed, which showed signs of right ventricular failure due to pressure overload. The patient was hemodynamically stable and was classified as »intermediate-high« risk for in hospital mortality, heparin therapy was introduced. Due to progressive hemodynamic instability with the development of hypotension, the patient underwent mechanical thrombectomy, via which the emboli were aspirated, when O2 saturation reached 98% the procedure was concluded. During hospitalization, a doppler ultrasound examination of the lower extremities showed deep venous thrombosis (DVT) of the left popliteal vein.

CONCLUSION: In the post operative period another echocardiography confirmed cardiac function returning to normal, however due to persisting respiratory insufficiency the patient was prescribed oxygen therapy. The patient was treated with heparin which was replaced by direct oral anticoagulants (DOAC) before discharge. The patient was prescribed long term anticoagulant therapy due to repetitive venous thromboembolism. Due to peripheral arterial disease the patient was not prescribed compressive bandages.

KEYWORDS: Anticoagulant therapy; Mechanical thrombectomy; Venous thromboembolism

From Playroom to Emergency Room; Case Report

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INTRODUCTION: Foreign body ingestions in children, particularly involving button batteries, present a significant health risk. Unlike other ingested objects, button batteries can cause rapid injuries within hours. The electrochemical mechanism leads to pH changes in surrounding tissues, resulting in severe injury, necrosis and potentially fatal complications. This case report aims to highlight the urgent need for recognition and intervention in cases of button battery ingestion, emphasizing the unique dangers posed by these small but potentially deadly objects.

CASE PRESENTATION: A 3-year-old boy was admitted to the pediatric emergency room after ingesting a button battery more than 27 hours earlier. Initially asymptomatic, abdominal radiography failed to confirm the foreign body's presence. On the second day, he vomited, prompting chest radiography that revealed a 2 cm oval metallic foreign body in the upper third of the oesophagus, at the level of the clavicles. Esophagogastroduodenoscopy was performed, but attempts to extract the foreign body were unsuccessful, leading to its placement in the stomach. A follow-up endoscopy 12 hours later revealed edematous oesophagal mucosa, with necrosis in half of the oesophagal wall and the other half showing oedema with erosions and deep ulcers. Multiple gastric erosions were observed without ulcers or necrosis. Laparotomy with gastrotomy successfully removed the battery, followed by silicone nasogastric tube insertion. The patient received parenteral hydration, potassium supplementation, urinary catheterization and a regimen of analgesics, metronidazole, corticosteroids and enhanced gastroprotection.

CONCLUSION: Esophageal button batteries demand immediate removal, irrespective of symptoms, due to their potential for severe complications. Crucially, parents of young children should exercise heightened caution in storing items prone to ingestion. Small objects, particularly those with chemical compositions like batteries, must be kept in areas inaccessible to children to ensure their safety.

KEYWORDS: Esophagus; Foreign Bodies; Pediatric Emergency Medicine; Radiography

Aortic dissection presented as hemiparesis – a case report

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INTRODUCTION: Aortic dissection is a life-threatening condition in which a tear occurs in the inner layer of the aorta, causing the separation of the aortic wall layers. The Stanford classification divides aortic dissection into two types. Type A includes parts of the aorta that are proximal to the origin of the brachiocephalic trunk, while type B dissection arises distal to the brachiocephalic trunk.

CASE PRESENTATION: Presented here is the case of a 65-year-old man who arrived at the emergency department with slurred speech, left-sided hemiparesis, and a drooping left corner of the mouth. The patient reported concurrent chest pain. Initial vital signs revealed a heart rate of 42 beats per minute and blood pressure of 136/49. Head and neck multi-sliced computed tomography (MSCT) indicated no signs of intracranial hemorrhage or ischemia. However, MSCT angiography revealed an ongoing dissection of the left common carotid artery, originating from the bifurcation, with normal contrast filling. Furthermore, there was an absence of contrast filling in the right common carotid artery and right internal carotid artery. Subsequent MSCT aortography identified a Stanford A Type dissection extending from the aortic root to the right common iliac artery, left common carotid artery, brachiocephalic artery, and right renal artery, with hypovascular imbibition of the associated kidney. Given the imperative for immediate surgical repair in Type A dissections, vascular surgery was promptly performed. Risk factors identified in this patient included older age, male sex, arterial hypertension, dyslipidemia, and smoking.

CONCLUSION: Aortic dissection typically presents as a sudden, severe, sharp chest or upper back pain, although it can also manifest as sudden, severe stomach pain, loss of consciousness, or shortness of breath. Between 17% and 40% of patients may experience neurological symptoms, with left-sided neurological deficits being the most common presentation in cases of painless aortic dissection.

KEYWORDS: Aorta; Aortic Dissection; Case Reports; Computed Tomography Angiography; Paresis

Syncope as the Initial Manifestation of a High-Risk Pulmonary Thromboembolism; Case Report

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INTRODUCTION: Pulmonary embolism is a sudden blockage of one or more branches of the pulmonary artery caused by a blood clot as a complication of deep vein thrombosis. It is usually presented with dyspnea, pleuritic pain and cough and less often with retrosternal pain, hemoptysis or syncope. The aim of this case report is to emphasize the challenge of diagnosing high-risk pulmonary embolism when syncope is the primary presenting symptom.

CASE PRESENTATION: A 57-year-old female patient presented to the emergency department by ambulance, following syncope and gastrointestinal symptoms (nausea and diarrhea). On arrival, she was hypotensive (100/50 mmHg) in comparison to her standard blood pressure (150/80 mmHg), with a normal respiratory rate, and no dyspnea or chest pain. Laboratory results revealed elevated troponin levels of 55 ng/L, which increased to 124 ng/L after a 4-hour period. Additionally, there were decreased pO2 (8.2 kPa) and oxygen saturation (90.5%), along with elevated lactates (2.8 kPa) measured in peripheral arterial blood. Considering the clinical and laboratory findings, the Geneva clinical prediction rule was calculated, resulting in a score of 5, categorizing the patient as an intermediate risk for pulmonary embolism. Subsequent D-dimer evaluation showed an elevation of 10.05 mg/L. Tachycardia was present on the electrocardiogram (HR 101/min). Computed tomography pulmonary angiography revealed extensive pulmonary thromboembolism. Following ESC guidelines, the patient was classified as a clinical high-risk pulmonary embolism. She was hospitalized and was given fibrinolytic therapy. The therapy proved to be successful, and she was discharged five days post-hospitalization with standard oral anticoagulation treatment.

CONCLUSION: While syncope is a rare isolated first manifestation of pulmonary embolism it is crucial not to dismiss it from a potential diagnosis due to its high mortality rate and the potential for causing lifelong disability.

KEY WORDS: Computed tomography angiography; Pulmonary embolism; Syncope

Pericardial tamponade in a patient with advanced lung adenocarcinoma: a case report

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INTRODUCTION: Pericardial or cardiac tamponade is a life-threatening condition characterized by the accumulation of fluid in the pericardial sac. It leads to impaired cardiac function due to restricted cardiac filling. This condition can arise from various etiologies including trauma, malignancy, and infectious or inflammatory processes. Prompt recognition and intervention are vital to prevent hemodynamic compromise and potential fatalities.

CASE PRESENTATION: We present an 83-year-old female patient with a complex medical history. She had previously undergone a left nephrectomy, cholecystectomy and is currently diagnosed with advanced adenocarcinoma of the lung. She presented with worsening dyspnea, frequent presyncope episodes, and generalized body pain. She had no nausea, vomiting, loss of consciousness or fever. Upon admission to the cardiac intensive care unit, she was diagnosed with pericardial tamponade. Echocardiography revealed a significant pericardial effusion up to a maximum of 4 cm inferiorly with partial collapse of the right ventricle and atrium, along with a wide-fixed inferior vena cava. Due to hypotension, hypoxia and elevated lactate levels, urgent pericardiocentesis was performed. Evacuation of 500 ml of sanguineous fluid led to immediate stabilization. Subsequent drainage caused an additional 500 ml drained, totaling 1000 ml. The drainage of the pericardium continued with daily secretions into the drain, approximately 100-200 ml per day. After the cessation of secretions and consultation with the cardiologist, the pericardial drain was removed. Cytological analysis of the pericardial effusion revealed malignant cells. The patient's hemodynamics improved, and follow-up ultrasonography demonstrated resolution of the pericardial effusion.

CONCLUSION: This case demonstrates the importance of recognizing life-threatening conditions such as pericardial tamponade in patients with advanced malignancy and complex comorbidities. Timely recognition and intervention are essential in managing pericardial tamponade, emphasizing the importance of a multidisciplinary approach in optimizing patient outcomes.

KEYWORDS: Cardiac Tamponade; Dyspnea; Pericardiocentesis

Pulmonary Thromboembolism Concealed Behind Lumbar Pain – A Case Report

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INTRODUCTION: Pulmonary thromboembolism (PTE) is a critical condition characterized by the sudden blockage of pulmonary arteries, typically arising from deep vein thrombosis. This obstruction disrupts blood flow to the lungs, causing a spectrum of clinical manifestations ranging from mild dyspnea to life-threatening hemodynamic compromise. This case report highlights the atypical presentation of PTE in a 36-year-old female patient, characterized by severe lumbar pain on the right side.

CASE PRESENTATION: A 36-year-old female presented to the ER with severe lumbar pain on the right side, exacerbated by deep breaths and coughing. Concurrently, she reported exertional dyspnea and exhibited a pattern of remittent fever. Laboratory findings revealed hypocapnia, accompanied by elevated oxygen levels due to compensatory tachypnea. Subsequent CT pulmonary angiography identified a thrombus in the pulmonary artery of the right upper lobe, along with bilateral obstruction of segmental and subsegmental arteries in the lower lobes. A posterior-basal consolidation zone in the right lung indicated a pulmonary infarction. The patient was diagnosed with intermediate-risk PTE and treated with oral anticoagulants and empirical antibiotic therapy with ceftriaxone. The clinical course showed satisfactory progress, with regression of pain, normalization of blood pressure, and reduced inflammatory markers. An additional color Doppler examination of the lower extremities performed a month and a half later revealed recanalization of the middle segment of the left femoral vein, with some smaller residual masses. Testing for MTHFR polymorphisms revealed homozygosity for the MTHFR A1298C mutation. The use of contraceptive pills was considered a potential contributor to thromboembolic events in this case.

CONCLUSION: The diverse clinical manifestations of pulmonary embolism contribute to its often challenging identification, particularly in asymptomatic individuals or those presenting with atypical symptoms. Recognizing these unusual presentations, such as abdominal pain or altered mental status, is crucial for timely intervention.

KEYWORDS: Anticoagulation; CT pulmonary angiography; Lumbar pain; Pulmonary thromboembolism

How to diagnose hemorrhagic corpus luteum at the emergency department - case report

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INTRODUCTION: Hemorrhagic corpus luteum (HCL) is an ovarian cyst formed after ovulation and caused by spontaneous bleeding into a corpus luteum cyst. The actual incidence of HCL is unknown because it is often asymptomatic and escapes the attention of physicians. HCL is clinically known to simulate several medical conditions that cause abdominal pain in females of reproductive age group. One such case is hereby presented that mimicked primary ovarian neoplasm on CT.

CASE PRESENTATION: We present a case of a woman patient, who was presented to an emergency department due to severe diffuse abdominal pain. Last menstrual period was 27 days before. She had no vaginal bleeding, nausea or vomiting. Laboratory findings: leukocytes 10x10 9 /L, ß-hCG was < 0,1 IU/L. An abdomen and pelvic CT scan were revealed there is a solid cystic mass in the left adnexa and a large amount of fluid was seen in the pouch of Douglas, with differential diagnosis of ovarian neoplasm and HCL. Examination by gynecologist was also suggested. On gynecological examination, there is no visible blood, no active bleeding nor cervical motion tenderness in vaginal touchs. Transvaginal ultrasound showed hyperechogenic endometrium, 7 mm wide. HCL was detected in the left ovary, measuring 63 x 40 mm which was surrounded by inhomogeneous echoes of fluid. Right ovary was unsuspecting. The patient was hospitalized and taken to the operating room. On exploration, it was found that pelvis was filled with liquid blood and coagula, which were evacuated, 1 L in total.

CONCLUSION: The main purpose of this case report is to highlight the importance of suspecting the diagnosis of HCL, whenever a premenopausal woman has an acute lower abdominal pain at her midcycle with a negative pregnancy test and new onset anemia. Such a way of thinking will help in making an early diagnosis of HCL and application the most effective treatment.

KEYWORDS: Abdominal pain; Ovarian cyst; Corpus luteum

From Prolactinoma to Coma: A Case Report of Prolactinoma-Induced Pituitary Apoplexy

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INTRODUCTION: Prolactinoma is a benign tumor of the pituitary gland that is usually treated with dopamine agonists but can occasionally lead to pituitary apoplexy. Pituitary apoplexy is a rare endocrinological emergency that can be life-threatening if not recognized and treated.

CASE PRESENTATION: A 28-year-old male patient was admitted to hospital because of headache accompanied by nausea and vomiting. Neuro-radiological examination confirmed an extensive intracranial formation in the sella turcica. The following day, the patient developed left-sided hemiparesis and was admitted to the intensive care unit in a somnolent state due to hemorrhage from a pituitary tumor. On arrival, the Glascow coma score was between 13 and 7 and emergency intubation was indicated. The tumor mass was reduced by transcranial surgery. Serum prolactin concentration (19965 ug/L) and histopathological findings indicated a prolactinoma with foci of apoplexy. In the early postoperative period, the patient developed a dipsogenic diabetes insipidus, which was brought under control by a fixed daily fluid intake (total daily fluid intake > 500 ml more than diuresis) and desmopressin; panhypopituitarism was also confirmed so substitution therapy with hydrocortisone, levothyroxine and testosterone was initiated. Postoperatively, cabergoline was introduced, which led to a reduction in the size of the residual tumor. Three weeks after the operation, levetiracetam was added to therapy due to an epileptic seizure. At the follow-up examinations, the patient's results were satisfactory and the prolactin concentration normalized. Four years after surgery, the patient is doing well with normal prolactin concentration with weekly intake of 1 mg cabergoline with no residual tumor on MRI.

CONCLUSION: Physicians should be aware of the endocrine emergency as pituitary apoplexy, which in combination with visual disturbances or impaired consciousness is an indication for immediate surgery, regardless of the type of pituitary adenoma.

KEYWORDS: Apoplexy; Pituitary; Prolactinoma

Hyperosmolar hyperglycemic state as the initial presentation of newly diagnosed type 1 diabetes in a pediatric patient – case report

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INTRODUCTION: A hyperosmolar hyperglycemic state (HHS) is a rare manifestation of a hyperglycemic crisis in pediatric patients. It is characterized by severe hyperglycemia and hyperosmolality, the absence of significant ketosis and acidosis. Due to its potential fatality and high morbidity, this case report aims to highlight the importance of prompt recognition and appropriate management of HHS.

CASE PRESENTATION: A 7-year-old boy was admitted to hospital with symptoms typical for T1DM. The symptoms of polydipsia and polyuria started several days earlier. Three days prior, he vomited around ten times, and the day before admission, three times. On admission morning, he ingested 8-9 deciliters of highly sweetened drinks. The medical history revealed Joubert syndrome, diagnosed by the pathognomonic "molar tooth sign" in brain neuroimaging. At admission he was alert and severely dehydrated. His respiratory rate, heart rate, blood pressure and capillary refill time were normal. Due to Joubert syndrome, it was difficult to assess his neurological status, but his mother claimed that he was acting normally. Laboratory findings indicated extremely high blood glucose (115 mmol/L), mild acidosis (pH 7.31), and low ketones. A diagnosis of hyperosmolar hyperglycemic state was confirmed. The boy was transferred to the intensive care unit, and the treatment with intravenous fluid was started (0.9% NaCl and 0.45% NaCl, respectively). Insulin was administered when glucose dropped at a rate of less than 3 mmol/hour. On the third day, the boy was moved to the ward, initiating intensive insulin therapy. He was discharged after 10 days without any complications related to HHS.

CONCLUSION: Because of its rarity, the recognition and management of HHS in children and adolescents with diabetes requires a high degree of awareness and suspicion by healthcare professionals.

KEYWORDS: Diabetes mellitus; Hyperglycemic hyperosmolar syndrome; Child

Postintubation tracheal stenosis as a complication of endotracheal intubation - case report

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INTRODUCTION: Tracheal stenosis is a rare complication of endotracheal intubation and mechanical ventilation. The aim of this case report is to demonstrate its importance in the differential diagnosis of dyspneic patients with a history of intubation, regardless of duration.

CASE PRESENTATION: A 37-year-old male presented to the emergency department (ED) due to breathing difficulties shown as an inspiratory stridor. A month earlier, he was admitted to the ED following cardiac arrest and cardiopulmonary resuscitation caused by type 1 Brugada syndrome. The patient was then hospitalized in the intensive care unit (ICU), placed on mechanical ventilation through orotracheal intubation for six days, and had an implantable cardioverter defibrillator placed. On current admission, he was conscious and had stable vital signs. Regarding the new symptomatology, an urgent bronchoscopy was indicated and revealed stenosis extending from the larynx's subglottic region to the fourth ring of the trachea. Following the diagnosis, the patient was admitted for further treatment. On the third day of hospitalization, he started having difficulty breathing with the use of accessory respiratory musculature, and symptoms persisted despite medication therapy. After a failed attempt at recanalizing circumferential stenosis with an emergency bronchoscopy, a surgical tracheotomy was urgently indicated. Once the airway was secured with the tracheal tube, the patient was brought into the ICU. In accordance with the otorhinolaryngologist, he was sent for additional treatment at the University Hospital Centre Zagreb, where a recervicotomy and retracheotomy were completed, and the tracheal cannula was inserted. Three months later, a decanilman was made, and the patient was soon discharged.

CONCLUSION: Postintubation tracheal stenosis is a complication of usually prolonged endotracheal intubation caused by regional ischemic necrosis of the airway. The incidence has decreased with recognition of its etiology, technological advances, and improved patient care in the ICU. However, this example shows how postintubation tracheal stenosis can cause a life-threatening condition even after a shorter intubation period.

KEYWORDS: Endotracheal Intubation, Mechanical Ventilation, Tracheal Stenosis, Tracheotomy

Simultaneous acute ST elevation myocardial infarction and gastric ulcer perforation: a case report

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INTRODUCTION: Both acute ST elevation myocardial infarction (STEMI) and gastric ulcer perforation are medical emergencies that require immediate attention. Percutaneous coronary intervention (PCI) and surgical repair are recommended interventions in such cases. However, when both of those emergencies are simultaneously present, there is no scientific consensus that offers a unique treatment algorithm.

CASE PRESENTATION: A 76-year-old female patient was admitted to the emergency department in a generally poor condition, with pain in the upper part of the abdomen, nausea and vomiting of yellow contents. She was stable, with normal vital signs, and denied chest pain. ECG showed sinus rhythm, inferoposterolateral elevation and ST-segment depression in V1-V2 and aVR. Upon this finding, the patient was given 100mg of acetylsalicylic acid and 180mg of ticagrelor and referred for catheterization. At that time, diffusely painful and distended abdomen with mild muscle spasm was detected on the secondary examination. Therefore, a perforation of the hollow organ was suspected and subsequently confirmed by a planar scan of the abdomen. Her hemoglobin level was normal, but troponin I level was 1871 ng/L. Sub-occlusion in the right coronary artery was detected on coronary angiography, so PCI was performed with the placement of DES. Four hours after the PCI, the patient was operated. On the anterior wall of the stomach, a 7mm wide perforation was detected, sutured and patched with omentum. Dual antiaggregation therapy was continued and the postoperative course was without complications.

CONCLUSION: Physicians should be aware that simultaneous emergencies are possible. Therefore, even if STEMI is diagnosed with an ECG, every patient must be thoroughly physically examined. When facing multiple emergencies, the intervention timeline should be determined for each patient individually, based on the severity of each emergency and the importance of immediate action.

KEYWORDS: Peptic Ulcer Perforation; Percutaneous Coronary Intervention; ST Elevation Myocardial Infarction

Unusual presentation of constrictive pericarditis caused by a virus infection: a case report

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INTRODUCTION: Constrictive pericarditis is a condition characterized by inflammation and fibrosis of the pericardium. This results in a loss of elasticity and restriction of normal heart movement during the cardiac cycle. Symptoms may include fatigue, shortness of breath, and fluid retention.

CASE PRESENTATION: A 65-year-old patient was referred from an outside institution following a heart ultrasound that revealed a pericardial effusion (30 mL) and a thickened pericardium. Therapy was administered but was unsuccessful in evacuating the effusion. She was hospitalized, and pericardiocentesis was performed and a small amount of hemorrhagic fluid was drained and sent for cytological and biochemical analysis. Laboratory results showed a mild drop in erythrocytes and hemoglobin. The patient complained of abdominal pain, and meteorism was present. Because of those finding a CT scan was done showing a collection in the epigastrium with an intensity suggestive of blood. The bleeding was referred to as active bleeding which led to the patient being transferred to another institution where an explorative laparotomy was done. It revealed that the bleeding was not active but was in fact caused by an iatrogenic made communication in the diaphragm, connecting the epigastrium to the pericardium. The communication was made during pericardiocentesis because of the entrance point of the needle was from the abdomen because of the patient being overweight. An MRI was done confirming the diagnosis of constrictive pericarditis. All cytological and biochemical tests came back negative, including immunology analyses. The only symptom of which the patient complained was dyspnea after she recovered from a respiratory infection of unknown etiology. It is suspected that this was a result of autoimmune processes triggered by a respiratory infection the patient had prior to these events.

CONCLUSION: Although viral-induced constrictive pericarditis is relatively rare, it is crucial for patients experiencing symptoms suggestive of heart-related issues, especially after a viral infection, to seek prompt medical attention for accurate diagnosis and appropriate management.

KEYWORDS: Constrictive; Iatrogenic; Pericarditis; Virus Diseases

Polytrauma patient with hidden compartment syndrome - case report

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INTRODUCTION: Compartment syndrome is increased tissue pressure within a closed fascial space, resulting in tissue ischemia.

CASE REPORT: A 60-year-old patient was admitted to the Department of Traumatology after he was involved in a motorcycle accident. Before coming there, he was examined at the National Memorial Hospital in Vukovar. There he received an X-ray of the extremities, a whole-body computer tomography (CT) scan, and a full laboratory workup. When he was admitted to the department, he was conscious, contactable, and visibly ethylized. Upon further examination, it was confirmed the patient had, among other fractures and injuries, a luxation of the left femur, and left superior and inferior pubic ramus fracture. Also, it was noted that his left upper leg is bigger than the right one. His extremities were cold, blood pressure was 100/50 mmHg, heart rate was 80/min, and we noticed a drop in the red blood cells. This raised suspicion that the patient was bleeding internally, so a whole-body CT was ordered again. During this time the patient was becoming progressively more hypotensive. Since the first two whole-body CTs did not show anything, CT angiography of the abdominal aorta and the pelvic arteries was performed. The imaging showed significant arterial contrast extravasation for the left peripheral muscular branches cox-femoral. This prompted an immediate examination due to the possible development of compartment syndrome. Soon after the patient had undergone his second surgery where the surgeons revisited wounds of the left thigh and did a fasciotomy. After a successful surgery, the patient was transported to the intensive care unit where was stable and awake.

CONCLUSION: Even after two whole-body CT scans it was difficult to find the source of bleeding, and a change in imaging method found bleeding that was overlooked. This saved the patient's life since the key to the diagnosis of compartment syndrome is early recognition and timely fasciotomy.

KEYWORDS: Compartment syndrome; Computed Tomography Angiography; Fracture; Polytrauma

Intracerebral hemorrhage with edema – Case Report

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INTRODUCTION: Intracerebral hemorrhage (ICH) is a focal bleeding from a blood vessel in the brain parenchyma. It's usually a result from a rupture of an arteriosclerotic small artery that had been weakened, primarily due to hypertension. Symptoms typically begin suddenly, followed by headache, nausea, vomiting and loss of consciousness.

CASE REPORT: 50-year-old male patient presented to the Emergency room (ER) with severely impaired level of consciousness. He was found in his workplace, on the floor unconscious and vomiting. Upon arrival to the ER the patient was hypertensive 220/114 mmHg with pulse 58 beats per minute, peripheral saturation was 90% and glucose in blood was 8,1 mmol/L. Physical examination showed contracted pupils, right deviation of the right bulbus, no reactions to light. There was no face asymmetry. On Glasgow Coma Scale (GCS) he was given a 4 score. The patient received Ebrantyl 12,5 mg iv. with 10 mL of 5% glucose solution in slow bolus over 10 minutes. Later, the patient received another 12,5 mg iv. of Ebrantyl. A check up on blood pressure shoved 229/112 mmHg so the patient was given an addition of Ebrantyl 12,5 mg. iv. The patient in intubated in continuous positive airway pressure (CPAP) method with added suction. An emergency CT was performed with findings of hemorrhagic zone in the right basal ganglia dimensions 39x31 mm followed with surrounding edema and infiltration of blood in all other ventricles. For further treatment, the patient was transferred to the Department of Neurology where an external ventricular drain (EVD) was performed.

CONCLUSION: ICH is a serious life-threatening condition if not managed properly and on time. In diagnosis it must be distinguished from ischemic stroke, subarachnoid hemorrhage, and other causes of acute neurologic deficits, in these cases an immediate CT or MRI is necessary. Early diagnosis and treatment may prevent severe health effects or death.

KEYWORDS: Cerebral Hemorrhage; Continuous Positive Airway Pressure; Unconsciousness

Undifferentiated Shock: The Importance of Timely Intervention in Emergency Medicine, Case report

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INTRODUCTION: Shock is a severe circulatory failure, causing insufficient oxygen delivery and tissue hypoxia. It can lead to irreversible effects such as multiorgan failure and death. Immediate therapy is crucial in undifferentiated shock, aiming to swiftly identify and treat the underlying cause to prevent complications and mortality.

CASE PRESENTATION: A 73-year-old patient was admitted to the Department of Emergency Medicine Rijeka with his daughter, experiencing 3-day disorientation. He presented with poor general condition, consciousness but disorientation, tachypnea, and was afebrile. The measured blood glucose level was 50 mmol/L, indicating metabolic acidosis and a left lung infiltrate on chest X-ray. The patient underwent analgosedation, endotracheal intubation, insulin therapy, volumetric replacement, and empirical antibiotics. Admitted to the Intensive Care Unit the next day, he received mechanical respiratory support, volumetric replacement, and vasopressor therapy. Thromboprophylaxis and gastroprotective measures were introduced, and the patient became febrile. Vasoactive medication doses were gradually reduced and eventually stopped with volumetric optimization. Diuretics supported good diuresis, and renal parameters were monitored. After 2 days, the patient became afebrile, and inflammatory parameters decreased. Analgosedation was discontinued after hemodynamic stabilization. On the fourth day, the patient was extubated, remaining awake, responsive, and stable. Adjustments to targeted antimicrobial therapy were made based on microbiological isolates. Continuous insulin infusion continued for hyperglycemia. The patient was transferred to the Internal Medicine Clinic and, before discharge, had a Glasgow Coma Scale score of 15 with satisfactory vital parameters.

CONCLUSION: Undifferentiated shock manifests diverse clinical features contingent upon its etiology and stage. Salient indicators, encompassing hypotension, oliguria,abnormal mental status, tachypnea, cool and clammy skin, and metabolic acidosis, elicit suspicion. Nonetheless, the non-specificity of these signs necessitates a focused differential diagnosis for the judicious application of timely empirical therapeutic interventions.

KEYWORDS: Emergency Medicine; Shock; Therapy

Acute aortic dissection in a patient with history of COPD and peptic ulcer

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INTRODUCTION: Acute aortic dissection is a relatively rare but life-threatening emergency condition in which blood penetrates between the split layers of the aortic wall. Considering that acute aortic dissection has a broad range of presentations, its symptoms may overlap with other conditions including chronic obstructive pulmonary disease exacerbation.

CASE PRESENTATION: A 65-year-old man with a history of COPD and a duodenal ulcer presented with symptoms of epigastric pain and dyspnea. Following an assessment by the emergency medical team, the patient was prescribed antibiotic therapy, a proton pump inhibitor, and paracetamol due to suspected exacerbation of COPD. On the same day, the patient's condition worsened with increased dyspnea and epigastric pain, leading to their admission to the hospital. The patient retrospectively recalled experiencing a sensation of heart pounding towards the throat, followed by intense, tearing pain in the stomach that radiated to the back, raising suspicion of acute aortic dissection. In the patient's comprehensive status assessment, the blood pressure measured 150/50, the EKG displayed no pathological signs, the X-ray indicated opacification consistent with pleural encapsulation accompanied by right-sided pleural effusion, and the laboratory findings showed no significant abnormalities. The patient underwent MSCT aortography, and the results were indicative of aortic dissection. Appropriate treatment was provided.

CONCLUSION: This case highlights the importance of recognizing the complex nature of aortic dissection, its potential overlap with other conditions, and the need for a thorough diagnostic approach to ensure timely and accurate medical intervention.

KEYWORDS: Aortic Dissection; Chronic Obstructive Pulmonary Disease; Peptic Ulcer

A severe case of eczema herpeticum in atopic dermatitis patient

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INTRODUCTION: Dermatological emergencies are rare but possibly life-threatening disorders, especially in patients with comorbidities. Such an example is eczema herpeticum (EH), a disseminated cutaneous infection caused by herpes simplex virus (HSV) occurring in less than 3% of atopic dermatitis patients. EH typically presents monomorphic vesicles and erosions with hemorrhagic crusts on eczematous skin, sometimes accompanied by systemic symptoms. Early treatment with systemic antivirals can shorten the duration of the disease and prevent complications.

CASE PRESENTATION: A 28-year-old patient presented to the emergency department (ED) with erythema and multiple erosions on the face, a fever of up to 39.7°C, and infraauricular swelling. The patient has had atopic dermatitis since childhood, for which he has been using JAK inhibitor (upadacitinib) for the past year. The patient was discharged with systemic antibiotic treatment (metronidazole and clindamycin) but returned to the ED four days later. He stated the symptoms progress, complaining of constant fever, further spreading of painful erosions on the entire face, scalp, neck and upper chest, and severe conjunctivitis. This time, he was diagnosed with EH and hospitalized at the Dermatovenereology department. The upadacitinib was immediately ceased, the oral clindamycin was continued, and the intravenous acyclovir was introduced to the therapy. Additionally, the ophthalmologist recommended topical tobramycin and acyclovir therapy. Blood samples were taken for hematological and biochemical tests, blood cultures, and serology for HSV-1/ 2, CMV, and VZV, among which HSV-1 IgG was positive. Abdominal ultrasound revealed an upper-limit value of spleen size. The patient was discharged nine days later with a good treatment response, significant healing of skin lesions and improved general state.

CONCLUSION: Eczema herpeticum is a potentially life-threatening disease, mostly appearing in atopic patients and needing prompt treatment. A misdiagnosis and treatment delay can result in severe complications of systemic viremia, such as herpetic keratitis with vision loss, CNS affection, multi-organ failure or even fatal outcomes.

KEYWORDS: Acyclovir; Atopic dermatitis; Eczema herpeticum; Herpes simplex virus

Case report: Refractory ventricular fibrillation in patient with traumatic subdural hematoma

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INTRODUCTION: Ventricular fibrillation (VF) is a lethal heart arrhythmia caused by rapid and irregular electrical impulses leading to ineffective contractions. If it persists after three shocks, it is known as refractory ventricular fibrillation (RVF). A subdural hematoma is a collection of blood between dura mater and arachnoid mater. This case report represents an atypical patient with multimorbidity who survived numerous defibrillator shocks due to extended RVF resuscitation without additional neurological damage.

CASE PRESENTATION: A 76-year-old patient with recent history of cerebrovascular insult, percutaneous coronary intervention and ischemic cardiomyopathy (left ventricular ejection fraction 25%) presented to the emergency department with confusion, disorientation and a Glasgow Coma Scale (GCS) score of 12. Heteroanamnestically, he fell a month ago. The computed tomography (CT) revealed subdural hematoma with a spacio-compressive effect and initial transtentorial herniation. His former antiplatelet therapy was discontinued, and trepanation was performed. Three days later, the patient developed VF. After 150 minutes of continuous resuscitation (defibrillation and chest compressions), return of spontaneous circulation was achieved. During resuscitation, arterial and central venous catheter were placed, while noradrenaline, dobutamine, empressin, lidocaine and cordarone were continuously administered. Surprisingly the patient periodically opened his eyes spontaneously, pupils were reactive and he responded to pain stimuli. Neither the laboratory results, which show no electrolyte imbalance, nor his medical records, revealed the cause of VF. Subsequent CT scans showed progression of the subdural hematoma, without an indication for active neurosurgical therapy. Chest radiography confirmed no ribs fractures from resuscitation. Without further complications, a cardioverter defibrillator was implanted and patient was discharged with GCS 15 for home care.

CONCLUSION: Refractory ventricular fibrillation is a highly lethal condition. However, even in such severe patients, early started and according to guidelines performed resuscitation can lead to survival and recovery, without any neurological impairment.

KEYWORDS: Return of Spontaneous Circulation; Resuscitation; Ventricular fibrillation

Hematemesis as a Result of Liver Trauma - Case Report

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INTRODUCTION: Hematemesis is a medical condition characterized by the vomiting of blood. It requires prompt attention, as it can be indicative of various underlying pathologies, mainly associated with the upper gastrointestinal system.

CASE PRESENTATION: A 29-year-old male participant in a traffic accident was brought to the emergency room. The physical examination revealed a hematoma in the projection of the right hemiabdomen. A computerized tomography (CT) scan of the abdomen showed a lacerocontusion lesion of the liver with a subcapsular hematoma and hematoperitoneum. Cauterization of the liver and cholecystectomy were performed during exploratory laparotomy. Ten days after the operation, the drainage from the placed abdominal drains is still present, and therefore magnetic resonance cholangiopancreatography is performed, revealing an injury to the bile ducts with possible extravasation. After treatment at the department of digestive surgery, he is discharged home. The next day he was admitted to the emergency room because of hematochezia and hematesis. First esophagogastroduodenoscopy (EGDS) showed normal findings, but three days later, EGDS showed a large clot in the duodenum with traces of fresh blood. Bleeding was stopped by flushing and tamponade of the choledochal duct which raised the suspicion of hemobilia. CT angiography revealed pseudoaneurysm (PSAN) in the proximal segment of the right hepatic artery, which was embolized by interventional radiologist. Control magnetic resonance imaging shows regression and organization of the liver hematoma with the formation of fibrosis and retraction of the liver capsule, without filling defect in the biliary system. The patient is discharged to homecare hemodynamically stable, and in good general condition.

CONCLUSION: Liver trauma may lead to the development of a fibrous scar. Given the possibility of fibrosis progression, it is crucial to monitor liver function. Regular evaluation of liver enzymes in the serum is recommended, in conjunction with assessing the overall status of the patient.

KEYWORDS: Fibrosis; Hematemesis; Liver injury

Case report: Anaphylaxis due to muscle relaxants

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INTRODUCTION: Perioperative anaphylaxis is a severe adverse event during anesthesia that requires prompt diagnosis and treatment. Muscle relaxants are the most common drugs that cause perioperative anaphylaxis. This case focuses on a patient who experienced perioperative anaphylaxis on two different anesthetic drugs on two consecutive occasions.

CASE PRESENTATION: A 35-year-old female scheduled for laparoscopic ovarian cystectomy, had a history of anaphylaxis to suxamethonium which happened during induction of general anesthesia for the same procedure one year earlier. General anesthesia was induced with propofol, fentanyl and rocuronium, which were all previously tested as being negative. After administering rocuronium, the patient developed bronchospasm, generalized urticaria, and became hypotensive and tachycardic. The diagnosis was based on clinical presentation in relation to the timing of intravenously administered anesthetics and was confirmed with results of skin testing one month afterwards. The patient was immediately intubated. Her blood pressure dropped to 90/40 mmHg and oxygen saturation fell to 80% but she stabilized within a few minutes after being treated with intravenous adrenaline, crystalloids, methylprednisolone, antihistamines and inhalational salbutamol, ipratropium bromide and aminophylline. The clinical presentation corresponds to grade III reaction of The Ring and Messmer scale for anaphylaxis severity. She was transferred to the Intensive Care Unit, monitored, and later recovered without consequences.

CONCLUSION: Perioperative anaphylaxis is a life-threatening condition and is most commonly caused by muscle relaxants and antibiotics. Vigilance and patient monitoring are crucial because anaphylaxis can occur during any anesthetic procedure. Patients must be fully informed about anaphylaxis, its cause, signs and symptoms and causative agent.

KEYWORDS: Adrenaline; Allergic reaction; Anaphylaxis

Life-threatening gastrointestinal bleeding as a complication of portal hypertension and thrombophilia - case report

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INTRODUCTION: Liver cirrhosis is characterized by significant fibrosis accompanied by the development of portal hypertension and varices. Those can be a source of life-threatening gastrointestinal bleeding. This case report aims to present a patient with complicated portal hypertension, thrombophilia, and concurrent bleeding from gastric and esophageal varices.

CASE PRESENTATION: A 57-year-old male patient presented in 2016 with three episodes of non-variceal and one episode of esophageal varices bleeding. Further evaluation revealed liver cirrhosis caused by hepatitis C infection with partial thrombosis of the superior mesenteric vein (SMV) and splenic vein (SV) on abdominal Multi-Slice Computed Tomography (MSCT). Due to complications of end-stage liver disease, orthotopic liver transplantation was performed in 2021, after which the patient fully recovered liver function. Further, the patient was treated with standard immunosuppression and monitored in the transplant center. His posttransplant course was without complications until December 2023, when the patient developed severe recurrent gastric variceal bleeding from Isolated Gastric Varices type 1 (IGV1). In two weeks, the patient was three times endoscopically treated with histoacryl sclerosation. MSCT findings pointed out the recurrence of SMV and SV. Doppler ultrasound revealed deep vein thrombosis of the right leg. Extensive recurrent thromboses of the portal and peripheral veins, without recurrent graft cirrhosis, raised the possibility of thrombophilia. It was confirmed by increased titer of anti-cardiolipin IgG and IgM antibodies and decreased concentrations of antithrombin III and protein C. Due to extensive vascular complications and intractable bleeding, the patient is now reconsidered for combined abdominal organ transplantation.

CONCLUSION: The coexistence of liver cirrhosis with thrombophilia posed unique challenges in balancing the risks of bleeding due to varices and thrombosis. Finally, this case report highlights the need for careful clinical assessment, a nuanced understanding of these condition's interplay, and a collaborative approach to treatment planning.

KEYWORDS: Hypertension, Portal; Liver Cirrhosis; Thrombophilia; Thrombosis

Case report: Spontaneous uterine rupture after vaginal delivery

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INTRODUCTION: Postpartum hemorrhage is typically defined as blood loss of more than 500 mL after a vaginal delivery or more than 1000 mL after cesarean delivery. Uterine rupture presents complete division of all three layers of the uterine muscle. This case report aims to show a patient with developed hemorrhagic shock due to unexpected uterine rupture.

CASE PRESENTATION: A 38-year-old parturient at 40 weeks of gestation was admitted at Department of Obstetrics and Gynecology due to uterine contractions. Previously, she had four uncomplicated vaginal deliveries and was otherwise healthy. After successful external cephalic version and administration of epidural analgesia she had uncomplicated vaginal delivery of the fetus and placenta. Suddenly after childbirth, patient became pale, hypotensive (40/30 mmHg) with tachycardia (110 beats per minute) but stabilised very soon after administration of 1000 mL of crystalloid solution and 500 mL of colloid solution. One hour after intensive care unit admission, patient developed severe vaginal bleeding. Laboratory workup showed drop in the complete blood count (hemoglobin 102 g/L, hematocrit 0.303). Gynecological examination revealed dilated and atonic cervix with active bleeding and contracted uterus. Bakri ballon tamponade was performed with extensive volume resuscitation that included 8 doses of packed red blood cells, 5 doses of fresh frozen plasma, fibrinogen 4 grams and tranexamic acid 1 gram. Repeated abdominal ultrasound examination revealed large amount of free abdominal fluid in abdominal cavity which led to emergent laparotomy and hysterectomy due to evident uterine rupture. Patient remained hemodynamically stable throughout the procedure.

CONCLUSION: Uterine rupture after vaginal delivery is a rare event that is likely to be misinterpreted and consequently mistreated. Therefore, vigilance is crucial during and after all deliveries in order to prevent and recognize development of severe postpartum hemorrhage and reduce maternal morbidity and mortality.

KEYWORDS: Hemorrhagic shock; Postpartum hemorrhage; Uterine rupture

Unsuccessful thrombectomy in massive pulmonary thromboembolism resolved with fibrinolytic alteplase: case report

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INTRODUCTION: Pulmonary thromboembolism, a life-threatening condition, occurs when thrombus disrupts blood flow of the pulmonary artery. If not timely detected and treated, it can lead to pulmonary infarction or hemodynamic decompensation. The prevalence of pulmonary thromboembolism ranges from 100 to 200 cases per 100 000 individuals annually, especially among older, hospitalized patients with thrombophilia.

CASE PRESENTATION: We present a case of 66-year-old male presented at Emergency department with loss of consciousness and chest pain radiating to the back. 10 days upon admission, he suffered from pneumonia which was treated with antibiotics. Upon hospitalization, the patient was slightly dyspneic, hypotensive (86/58 mmHg), tachycardic (115/min), with oxygen saturation at 93%. Neurological status was unimpaired. Electrocardiogram (ECG) showed sinus rhythm, heart rate 112/min, right axis deviation, S1Q3T3 pattern, and negative precordial T waves. Computed tomography (CT) angiography revealed massive bilateral pulmonary embolism involving the right and left main pulmonary arteries, right upper lobar and interlobar arteries, and left lower and upper lobar arteries, with involvement of several segmental branches. Echocardiogram indicated reduced right ventricular function. Troponin levels were elevated. Mechanical thrombectomy was performed and successfully recanalized the right artery, but left-sided thrombus persisted, causing left branch dissection and treatment cancellation. The patient was stable until the fourth day of initial treatment, when he developed dyspnea, hypotension, and desaturation. Fibrinolytic therapy with alteplase was indicated, resulting in complete stabilization and right ventricular recovery. Further workup revealed hereditary thrombophilia, requiring permanent anticoagulation therapy. The patient was discharged home for further care and treatment which included Clexane, Clavulanic acid, Pantoprazole, Lasix, Trandolapril and Tamsulosin.

CONCLUSION: Pulmonary thromboembolism demands accurate diagnosis with rapid treatment to avoid fatal consequences. There are several available treatment options, which should be adjusted to the patient's risk factors and medical history. Every diagnosis requires relieving background and treating the initial disease.

KEYWORDS: Alteplase; Hereditary thrombophilia; Pulmonary thromboembolism

Lobectomy Due to Pneumococcal Pneumonia – a Case Report

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INTRODUCTION: Community-acquired pneumonia (CAP) is one of the most common infectious diseases and an important cause of mortality and morbidity worldwide. Streptococcus pneumoniae is the most common bacteria to cause CAP. Clinical signs and symptoms include fever, cough, sputum production, chest pain, dyspnea, tachypnea, and tachycardia.

CASE PRESENTATION: 73-year-old patient was admitted to the emergency department due to general weakness, and fever measuring up to 38°C. She claims the symptoms started five days ago, and reported dry cough, fever up to 40°C, shivers, and dysuria. Her oxygen saturation (SpO2) was measured at 96%, and auscultatory findings were bilateral basal crepitations. Chest X-ray showed reduced lung transparency of the entire left lung and a small left sided pleural effusion. Streptococcus pneumoniae antigen was detected in urine. Patient was admitted to the pulmonology intensive care unit and treatment was initiated with double parenteral antibiotic therapy (ceftriaxone and levofloxacin) alongside oxygen supplementation and symptomatic therapy. Blood cultures came positive for Streptococcus pneumoniae. After four days of treatment, follow-up chest x-ray showed progression of opacities in the left lung. Chest CT was performed for further evaluation and revealed bilateral pneumonia, bilateral pleural effusion, mediastinal lymphadenitis, and necrosis in the left lung. The patient was referred to thoracic surgery for consultation regarding further treatment. The interdisciplinary decision was made to perform left lower lobectomy. After the procedure, the patient was continuously treated with antibiotics and symptomatic therapy, showed clinically significant improvement, and was later discharged from the hospital.

CONCLUSION: Necrotizing pneumonia is an uncommon, but severe complication of bacterial pneumonia, associated with high morbidity and mortality. Patients who present with clinically severe forms of pneumonia should be closely monitored for signs of progression. After the initiation of antibiotic and symptomatic therapy, if no signs of improvement are present, surgical approach can be a life-saving option.

KEYWORDS: Lobectomy; Necrosis; Pneumonia

Veno-Arterial ECMO: A Key Strategy in a Complex Case of Pneumococcal Sepsis - A Case Report

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INTRODUCTION: Veno-arterial extracorporeal membrane oxygenation (VA ECMO) is a lifesaving modality reserved for severe respiratory and cardiac compromise when conventional treatments fail. The aim of this report is to present a clinical course of a patient with pneumococcal sepsis, septic shock and sepsis-induced cardiomyopathy (SICM), successfully treated with VA ECMO.

CASE PRESENTATION: A 68-year-old woman presented with dyspnea, fever, and chest pain and was admitted to the ICU for acute respiratory insufficiency. She was tachypnoic (35 breaths/min), hypoxic (SpO2 82%), tachycardic (115 bpm), and hypotensive (95/60 mmHg). Auscultation revealed bilateral expiratory coarse crackles, and lung X-ray showed extensive bilateral pneumonia. Laboratory results demonstrated: CRP 314.5 mg/L and procalcitonin 55.140 µg/L, WBC 3.0 x 109 (neutrophils 90%), platelets 122x109/L, AKI (urea 24.5 mmol/L and creatinine 248 µmol/L) and NTproBNP 2254 ng/L. ABG showed metabolic acidosis (pH 7.32, BE - 5.5 mmol/L), hypoxemia (pO2 9.3 kPa), and elevated lactate (4.8 mmol/L). Transthoracic echocardiography indicated SICM with an EF of 20%.
Despite aggressive treatment including intubation, mechanical ventilation, fluids, dual vasoconstrictor therapy, inotropes, corticosteroids, broad-spectrum antibiotics and synchronized cardioversion for new-onset atrial fibrillation, the patient's condition worsened, necessitating ECMO. Following, Streptococcus pneumoniae was identified in bronchial aspirate. An emergency CT scan was performed, showing tension pneumothorax and collapsed lung lobes. Subsequent thoracic drainage improved cardiac output, followed by right-sided thoracotomy, upper lobectomy due to lobar necrosis, and pleural decortication. On day nine, hemodynamics stabilized, which allowed ECMO discontinuation and extubation. However, she developed atrial fibrillation and bradyarrhythmia, requiring pacing and re-intubation. On day fifteen, improved cardiac function enabled re-extubation, leading to her transfer to thoracic surgery.

CONCLUSION: This case report demonstrates the successful use of VA ECMO in a pneumococcal sepsis patient with septic shock and severe haemodynamic compromise due to SICM and septic vasoplegia where standard support therapy is ineffective, and the patient's condition continues to deteriorate despite it. VA ECMO is a lifesaving modality in these cases; the decision to implement it should be made in time for the best possible outcome.

KEYWORDS: Sepsis; Septic shock; Venoarterial ECMO

Case report: Resuscitation and therapeutic hypothermia in perinatal asphyxia

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INTRODUCTION: Perinatal asphyxia is a condition followed by acute or chronic interruption of placental blood flow that results with multi-organ failure (MOF) and hypoxic-ischemic encephalopathy (HIE). We present the resuscitative and post-resuscitative management of a neonate who suffered from severe perinatal asphyxia.

CASE PRESENTATION: A male neonate was delivered by emergency cesarean section due to placental abruption at 37 weeks of gestation. The patient was born pale, hypotonic, without spontaneous respiration and heartbeat, so resuscitation was initiated, including endotracheal intubation and ventilation, along with chest compressions and epinephrine administration. Apgar scores at 1, 5, 10 and 15 minutes were 0/0/0/3. Cardiac activity was established 10 minutes after birth, but breathing was agonal, therefore continuous mechanical ventilation was required. In the first hour of life, the patient showed impaired consciousness, hypotonia, bradycardia, hypotension, and absent reflexes. The Neonatal Encephalopathy Score (NES) was 24, indicating that our patient suffered from severe HIE. Brain ultrasonography revealed mild oedema, while magnetic resonance imaging (MRI), performed on the fifth day of life, showed hypoxic-ischemic lesions in the globus pallidus. Due to the severe HIE, hepatic and renal lesions, and thrombocytopenia, therapeutic hypothermia (TH) was initiated for 72 hours with morphine analgesia, vasoactive support, and plasma, albumin and platelet replacement. Seizures registered during TH by amplitude-integrated electroencephalogram (aEEG) were initially stopped with phenobarbital. Due to relapse of seizures, levetiracetam was introduced, leading to patient recovery in subsequent aEEG scans. Weaning from mechanical ventilation occurred on the sixth day of life. Two weeks later, at discharge, all organs have recovered and the neonate showed no neurological sequelae. The plan is to gradually reduce and eventually discontinue the antiepileptic medication.

CONCLUSION: In infants with moderate and severe perinatal asphyxia, therapeutic hypothermia after successful resuscitation has become the standard treatment which significantly reduces mortality and major neurodevelopmental disability.

KEYWORDS: Asphyxia; Brain; Neonatal encephalopathy; Therapeutic hypothermia

Rare case of acute monoblastic leukemia; case report

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INTRODUCTION: Acute monoblastic leukemia, a subtype of acute myeloid leukemia, features rapid growth of immature monoblasts in bone marrow and blood. Rare, it affects 1 in 10 5 children yearly, leading to anemia, thrombocytopenia and organ infiltration. This case presents severe complications.

CASE PRESENTATION: A 21-year-old man was admitted to the ICU following an ER evaluation for a suspected ruptured spleen. He displayed as tachypneic, tachycardic, hypotensive and mildly lethargic. During the examination, hepatosplenomegaly, acute renal failure, pericardial effusion, leukocytosis 45x109/L, elevated PCT 264.000 µg/L and NT-proBNP 48 198 ng/L were noted. Upon admission to the ICU, vasoconstrictor and antimicrobial empiric therapy was started as well an attempt to stimulate diuresis, given that the patient was oliguric after 3 L of crystalloids. Furthermore, after hematologist examination a bone marrow sample was taken to confirm potential acute monocytic leukemia due to developing systemic inflammatory response and pancytopenia, excluding the monocytes. The heart ultrasound revealed weakened contractility, prompting the initiation of inotropic therapy. MSCT of the thorax showed atelectasis affecting the entire lower lung lobes. Due to the deterioration of consciousness, the patient was placed on an ECMO system. Moreover, in agreement with the hematologist, Vincristine and Rasburicase were introduced into the therapy. On the third day, the patient had sinus tachycardia and after three cardioversions, continuous therapy with amiodarone and a beta blocker was introduced to control the rhythm. Additionally, antiedematous therapy was initiated following the identification of bilateral intracranial hemorrhage and diffuse cerebral edema on brain MSCT. In the meantime, acute monoblastic leukemia was diagnosed via bone marrow immunophenotyping, prompting Cytarabine therapy, with a follow-up MSCT brain scan showing no significant changes. Patient succumbed to disease complications, including circulatory collapse in the ICU.

CONCLUSION: Despite advancements, chemotherapy resistance remains a primary cause of death in young adults with acute monoblastic leukemia. Early intervention and improving therapeutic strategies are crucial for enhancing outcomes and survival rates.

KEYWORDS: Acute monoblastic leukemia; Bone marrow; Chemotherapy

Quincke's edema: Emergency in family medicine – Case report

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INTRODUCTION: Angioedema, also known as Quincke's edema is described as the rapid swelling of the dermis, mucus and submucosal tissues. Sometimes it can be life threatening as it can affect the face and throat.

CASE PRESENTATION: A 40-year-old male came to his family doctor's office, on Friday, because of a temperature of 38,5°C, which appeared in the morning, and complains of pain all over his body, sore throat and cough. Physical exam shows bright red pharynx with purulence from tonsils and vesicular respiration. He is given KlavoPhar (amoxicillin and clavulanic acid) as he is not allergic to penicillin and advised to use antipyretics as needed. He came again on Monday, saying he drank the antibiotic on Friday, felt some tingling around his mouth, and then he did not take it on the weekend, but he took one pill today in the morning. He still has a temperature of 38 degrees°, he has difficulty breathing and he states that his lips are swelling. On the physical examination mild swelling of the lips is observed, as well as the wheezing of the lungs. During the exam, bronchospasm occurred, and the patient started to lose consciousness. He was laid on the bed and the nurse placed a venous access. His blood pressure, saturation and pulse were normal. He was given Solu-Medrol (methylprednisolone) 80mg and 2 Ventolin thrusts through mask. The ambulance was called, but in the meantime, he regained consciousness and was breathing better. In the hospital, right-sided pneumonia was detected as well as exacerbation of purulent tracheobronchitis. He was in the hospital for seven days and was instructed to do an allergy test to clarify the question of allergy to penicillin.

CONCLUSION: Penicillin allergy is the most reported medication allergy. It may cause milder disorders such as urticaria, or more serious as angioedema or anaphylaxis. It is crucial to recognize the symptoms of allergic reactions to medication and to treat it promptly.

KEYWORDS: Angioedema; Hypersensitivity; Penicillin

Lienal artery rupture: a comprehensive review of clinical presentation, diagnosis and management

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INTRODUCTION: The lienal artery is an important blood vessel that supplies the spleen and surrounding tissues. Rupture of the lienal artery is a rare but serious complication that can lead to severe bleeding and potentially endanger the patient's life. In this case report, a specific case of rupture of the lienal artery is described in detail, including the clinical presentation, diagnostic procedures, and therapeutic interventions.

CASE PRESENTATION: A 29-year-old male patient arrives by ambulance reporting severe epigastric pain radiating under the right coastal arch, sudden weakness, nausea, and profuse sweating. Although he did not lose consciousness, he was unable to stand on his feet. When he arrived at the hospital, he had slight neck and back pain but denied any chest pain or breathing difficulties. On arrival at the emergency department, the patient underwent an urgent examination, including chest and abdominal X-rays, which appeared normal. However, abdominal ultrasound revealed free liquid in the perihepatic region, and a computed tomography scan showed rupture of the lienal artery aneurysm and hemorrhagic ascites in the omental bursa. The patient underwent an operation that required a splenectomy and a distal pancreatectomy. An Echelon stapler was used during the surgical procedure. This advanced surgical instrument allowed precise and effective stapling of the tissue, ensuring secure closure and minimizing the risk of postoperative complications. Close post-postoperative monitoring and appropriate care ensured the patient's well-being and an optimal outcome. After the operation, the patient was transferred to the intensive care unit, where he recovered without any problems and complained of no pain.

CONCLUSION: In summary, the presented case emphasizes the critical importance of early recognition, timely intervention, and effective surgical treatment in cases of ruptured lienal artery. Heightened awareness, prompt diagnosis, and immediate surgical intervention are critical to improving patient outcomes and reducing morbidity and mortality associated with this life-threatening condition.

KEYWORDS: Aneurysm; Emergencies; Rupture; Splenic artery; Surgical stapling

Epigastric pain in pregnancy as the first sign of liver sarcoma - case report

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INTRODUCTION: Sarcomas are rare mesenchymal tumors of connective tissue origin, including smooth muscle, mesenchymal cells of the liver, bone and adipose tissue with a propensity for hematogenous metastases. Primary liver sarcoma is a rare type of tumor, more common in children. Symptoms usually include abdominal pain, ascites, icterus, weight loss, weakness and tiredness.

CASE PRESENTATION: A pregnant woman in the 30th week of pregnancy comes for an examination due to pain in the epigastrium and under the right costal arch, which subsided in the external emergency department with the use of pantoprazole and hyoscine. The patient is hospitalized at the Department of Fetal and Maternal Medicine, due to pressure in the lower abdomen spreading to the back. Abdominal ultrasound is performed, which shows the hyperechoic formation of the liver. MRI is indicated for the purpose of further differentiation of the formation. Magnetic resonance imaging shows multiple focal lesions of the liver in addition to one larger lesion, lesions of both kidneys and a smaller lesion of the pancreas. A biopsy of the liver lesion is performed, suggesting a poorly differentiated sarcoma. After spontaneous premature labor, an emergency caesarean section was performed and a live child was born. Urgent CT aortography is performed postoperatively next day along with abdominal CT to assess the vascularization and expansion of the metastatic liver tumor. The patient is transferred to the Tumor Clinic for further oncological treatment.

CONCLUSION: Sarcomas rarely occur in adults. Symptomatology varies depending on the type and localization of the tumor. Diagnosing sarcoma in pregnancy can be challenging as exposure of the mother and the unborn child to radiation has to be taken into consideration.

KEYWORDS: Abdominal pain; Biopsy; Hepatocellular carcinoma; Neoplastic pregnancy complication; Metastasis;

In the digestive Danger Zone: Emergency Managment of swallowed nail clipper - a case report

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INTRODUCTION: Foreign body ingestion in adult population is encountered in clinical practice, either intentional or unintentional. Complications in terms of impaction, perforation, hemorrhage, and obstruction may occur so prompt evaluation is needed. Aim of this case report is to present unusual cause of foreign body ingestion that required urgent treatment.

CASE PRESENTATION: A 46-year-old patient was admitted at the emergency room (ER) due to ingestion of a foreign body. It is a case of a prisoner who attempted suicide a day prior by inflecting neck wounds with a razor blade. Suicidal attempts were reason for ingestion as well. He admitted swallowing a nail clipper for which he had to return to the emergency department again. At admission vital parameters were within reference values and his physical examination showed no abnormalities. Blood for complete blood count, metabolic panel and coagulation tests was sampled and abdominal radiogram was obtained. It described metal foreign body in the projection of third and fourth lumbar vertebrae without signs of mechanical obstruction or perforation. The patient was referred to gastroenterologist. Due to ingestion of a sharp object, urgent upper endoscopy was performed. On gastroscopy, the esophagus and duodenum were found normal, while the cardia had edematous changes with several erosions. There was a nail clipper in the body of the stomach, which was then extracted. Following a psychiatric examination, he was released for treatment at the Hospital for Persons Deprived of Liberty due to suicidal attempts. The patient was discharged with the diagnosis X78- Intentional self-harm with a sharp object.

CONCLUSION: To conclude, this case report presents a rare finding of a metal foreign body in specific circumstances. It accentuates the integral role of emergency endoscopy treatment, emphasizing a life-saving importance of preventing potential lethal complications arising from foreign body ingestion.

KEYWORDS: Foreign Bodies; Gastroscopy; Mucous Membrane; Prisoners; Self-Injurious Behavior

Cervical osteomyelitis presenting with homonymous hemianopsia – a case report

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INTRODUCTION: Cervical osteomyelitis is a relatively uncommon disease, accounting for 5-20% of spinal infections. The disease often presents with non-specific symptoms, such as persistent neck pain and constitutional symptoms, which may lead to delays in diagnosis. Compared to osteomyelitis of other vertebral regions, cervical osteomyelitis is more likely to cause neurological defects; therefore, timely diagnosis and adequate treatment are essential to prevent permanent neurological impairment.

CASE PRESENTATION: A 43-year-old patient presented with progressive neck pain for two months and occipital headache for two days. On the day of admission, the patient developed a left-sided homonymous hemianopsia. He denied having a fever but experienced night sweats and fatigue. The patient's vital signs were normal, but he appeared visibly fatigued. His neck was stiff and painful on palpation. The range of motion was restricted due to unbearable pain. Neurological examination revealed left homonymous hemianopia. Other than tooth decay and paronychia, the rest of the clinical examination was unremarkable. The laboratory test showed elevated inflammation markers: C-reactive protein 125 mg/L, leukocytosis 14.6 x 10 9 /L, and neutrophilia 79%. Magnetic resonance revealed extensive osteomyelitis of the C2 vertebra with dense type III fracture and retropharyngeal inflammation. Additionally, a dissection of the left vertebral artery in segments V2-V4 with contralateral embolic infarction in the right occipital region was diagnosed. Staphylococcus aureus and Enterococcus faecalis were isolated from the tissue sample obtained during surgical exploration of the retropharyngeal space. The patient was treated with cervical immobilization, prolonged antimicrobial therapy, and antithrombotic therapy, resulting in a favorable clinical outcome.

CONCLUSION: Although the differential diagnosis of neck pain is broad, patients with neck pain coupled with fever, constitutional symptoms, and/or elevated inflammatory markers should be carefully evaluated for cervical osteomyelitis. Early clinical recognition and treatment are crucial to reduce significant morbidity and mortality associated with cervical osteomyelitis.

KEYWORDS: Neck pain; Osteomyelitis; Vertebral artery dissection

Massive placental abruption and other complications in pregnant women in the IVF pregnancy procedure: case report

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INTRODUCTION: To present the specific causes of postpartum bleeding and indicate the possibility of developing other complications.

CASE PRESENTATION: A 36-year-old pregnant woman at 27+3 weeks of pregnancy was admitted to the emergency gynecological clinic due to pain in the lower abdomen, elevated body temperature up to 38 □ and reduced number of fetal movements. The pregnancy is based on IVF/ET, which has gone well so far. The patient is hospitalized at the Department of Fetal and Maternal Medicine for further treatment. In the following hours, sudden vaginal bleeding occurs. Ultrasound shows severe fetal bradycardia. Consequently, an emergency caesarean section is indicated for placental abruption. After the caesarean section, profuse vaginal bleeding, uterine atony, bleeding from the nose, oral cavity and bladder appeared. Despite the measures taken, there was no improvement, so a hysterectomy with bilateral salpingectomy was performed. On the second day of intensive treatment, the patient is bleeding profusely in the area of the drain and the wound. Laboratory findings indicate a drop in hemoglobin to 50. Free fluid in the pelvis can be seen on ultrasound examination. Perform right sided ovariectomy and drainage. After a few days, the patient complains of loss of vision and headache with the onset of a generalized epileptic seizure and is transferred to the Clinic for Neurology. An MRI of the brain was performed and changes corresponding to PRES were observed. After a few days, after antiepileptic and antiedematous therapy, the patient was discharged home.

CONCLUSION: Postpartum hemorrhage is the leading cause of mortality in childbirth. Obstetric complications leading to hypoperfusion can result in the development of the relatively rare PRES, which can have a fatal outcome for the patient.

KEYWORDS: Hysterectomy; Placental abruption; PRES; Uterine atony

Unusual back pain: Pleural empyema in a person on biological therapy (case report)

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INTRODUCTION: Empyema necessitans is a rare condition characterized by the extension of an empyema out of the pleural space and into the neighboring chest wall and surrounding soft tissues. It may occur due to the virulence of the organism or due to the decreased immune response of the host. We report a case of empyema necessitans in a patient undergoing treatment with adalimumab, an anti-tumor necrosis factor-alpha (TNF-α) monoclonal antibody.

CASE PRESENTATION: A 34-year-old patient presented with stabbing pain under his left scapula for two weeks. The pain started after he engaged in an intense workout and has been accompanied by swelling under the left scapula for the past five days. He did not report any respiratory symptoms or fever. The patient had a history of severe Chron's disease and has been treated with adalimumab. Upon admission, the patient was afebrile, and his vital signs were normal. There was a swelling under his left scapula that extended towards the abdominal wall. The overlying skin was erythematous with fluctuation indicative of an abscess. The laboratory test showed elevated inflammation markers: C-reactive protein 323 mg/L, leukocytosis 35.4 x 10 9 /L, and neutrophilia 81.6%. Chest X-ray showed left-sided pleuropneumonia, and a CT scan revealed left-sided pleural empyema extending through the thoracic wall, causing a subcutaneous abscess. Peptostreptococcus species was isolated from the empyema. The patient underwent a left-sided thoracotomy with lung decortication combined with prolonged antimicrobial therapy, resulting in a favorable clinical outcome.

CONCLUSION: The number of patients undergoing immunosuppressive therapy for various autoimmune diseases is increasing. This treatment is associated with an increased risk of infection, which may have an unusual clinical presentation, such as the absence of fever, and potentially more severe course. Clinicians should, therefore, carefully evaluate patients receiving immunosuppressive therapy for any infection to ensure timely diagnosis and treatment.

KEYWORDS: Empyema; Back pain; Adalimumab

Pheochromocytoma as the cause of secondary hypertension: a case report

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INTRODUCTION: Secondary hypertension is arterial hypertension with an underlying, potentially reversible cause. It affects about 5-10% of patients with arterial hypertension. Presentations that should raise suspicion of secondary hypertension include early onset, severe or resistant hypertension. The most common causes are renal and endocrine disorders. Although some features may be clinically suggestive, many cases of endocrine hypertension remain undetected until they are specifically investigated. The majority of cases are due to primary aldosteronism. Other rare conditions include pheochromocytoma, Cushing's syndrome, acromegaly and primary hyperparathyroidism. This case report aims to highlight the importance of recognizing secondary causes of arterial hypertension that are potentially curable.

CASE PRESENTATION: A 22-year-old male patient presented to the local clinic for recurrent episodes of palpitations, sweating, pallor, tremor and general weakness lasting 5 to 20 minutes after which they subside spontaneously. Evaluation revealed a blood pressure of 170/95 mmHg. The patient was prescribed perindopril/amlodipine 10/10 mg fixed combination once daily. Secondary arterial hypertension was suspected. MR imaging showed an oval, well demarcated, heterogeneous formation on the left adrenal gland measuring 60x55 mm. The mass was highly suspicious of a pheochromocytoma. Measurement of metanephrine in 24-hour urine was recommended. The findings confirmed the diagnosis of a pheochromocytoma. Patient underwent surgical treatment with an administration of an alpha-adrenergic receptor blocking agent (phenoxybenzamine) 3 weeks prior surgery.

CONCLUSION: A pheochromocytoma is a neuroendocrine tumor that produces excess quantities of catecholamines resulting in persistent or paroxysmal arterial hypertension, accompanied by a constellation of signs and symptoms that can imitate those seen with a diverse medical disorder. Early recognition, precise localization and attentive management of a benign pheochromocytoma in most instances leads to a complete cure. The diagnosis of a pheochromocytoma includes the examination of metanephrines in plasma or urine as well as anatomical localization using imaging techniques. These tumors can prove life□threatening, particularly during surgical and obstetric procedures.

KEYWORDS: Arterial hypertension; Pheochromocytoma; Secondary hypertension

Insights into early onset myocarditis: Case report of a 24-year -old with ST-elevation

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INTRODUCTION: Myocarditis is an inflammation of the heart muscle that can lead to reduced heart function. This condition may arise from viral or bacterial infections, as well as certain medications. Clinical manifestations typically include chest pain, dyspnea, and arrhythmias.

CASE PRESENTATION: A 24-year-old patient presented to the emergency department with nocturnal chest pain exacerbated by movement. Initial self-administration of an antipyretic provided temporary relief, but symptoms recurred accompanied by fever and vomiting. Andol and tikarelor were administred, resulting in symptom alleviation. Anamnesis revealed a history of childhood cardiomyopathy. Laboratory analysis demonstrated elevated levels of glucose, leukocytes, and C-reactive protein. An electrocardiogram revealed ST-segment elevation, prompting referral to the cardiology department for suspected myocardial infarction. Additionally, coronary angiography yielded normal results, while echocardiography indicated a mildly reduced left ventricular systolic function. The patient was treated with a beta blocker and an angiotensin-converting enzyme (ACE) inhibitor along with gastroprotection and thromboprophylaxis. Subsequent control magnetic resonance imaging (MRI) revealed oedema in the left ventricle's region with normal systolic function. Considering the obtained findings, the patient was diagnosed with myocarditis and discharged with recommended therapy.

CONCLUSION: This case emphasizes the importance of comprehensive evaluation of patients which leads to more precise diagnosis. Early detection of myocarditis lowers the risk of developing potential complications like arrhythmia, myocardial infarction, and heart failure.

KEYWORDS: Myocarditis; Myocardial infarction; Chest pain; ST-elevation

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