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ABSTRACT BOOK

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BELGRADE, 2018.

ABSTRACT BOOK

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ABSTRACTS: DOCTORS

ABSTRACT NUMBER: 001

THE ASSOCIATION BETWEEN MEAN PLATELET VOLUME AND INFLAMMATION IN GERIATRIC PATIENTS WITH EMERGENCY HYPERTENSION

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Introduction: We aimed to investigate the role of inflammation parameters and platelet activation in geriatric patients with hypertensive crisis. Thus, we compared these parameters in patients with emergency HT and urgency HT. We also looked for potential relationships between these parameters in such patients

Materials and methods: A ninety-six hypertension (HT) patient (aged > 60) were included in the study; emergency HT (N = 48, group 1) and urgent HT(N = 48, group 2). MPV, neutrophils lymphocytes ratio (NLR) and high sensitive C reactive protein (hs-CRP) were calculated. Chi-square and student-t test were used for data. Receiver operating characteristic (ROC) curve analysis was used to determine the optimum cut-off level of preprocedural MPV values of patients. Pearson correlation test was used to determine relationships between data. P-value < 0.05 was taken to reflect statistical significance.

Results: The mean systolic BP in patients with emergency HT was 174.13 ± 14.25 mm Hg, and that in patients with urgent HT was 174.13 ± 14.69 mmHg (Table 1); these figures did not differ significantly (Fig. 1). In contrast, the mean diastolic BP was 108.96 ± 8.93 mm Hg in patients with emergency HT and 103.85 ± 9.69 in patients with urgent HT, which are significantly different (P = 0.009).We evaluated principally the MPV, NLR, hs-CRP level, and WBC count. Other clinical and laboratory data were secondarily studied. The mean MPV (10.41 ± 2.33 fl vs. 7.29 ± 1.04 fL; Fig. 2) and the mean hs-CRP level (4.09 mg/dL vs. 0.77 mg/dL; Fig. 3) were significantly higher in the emergency patients than in the urgent HT patients (both P < 0.001). The NLR mildly differed between the two groups (P = 0.011; Fig. 3), but the platelet counts were similar (P = 0.434). In addition using a cut-off level of 8.21 of MPV were observed in emergency HT with a sensitivity of 83% and specificity of 64% (area under ROC curve = 0.918, 95% CI: 0.866–0.969, p < 0.001; Fig. 4).Pearson correlation analysis (Table 3) revealed positive correlations between the MPV and all of the hs-CRP level (r = 0.394, P < 0.001), the WBC count (r = 0.362, P < 0.001), and the troponin I level (r = 0.426, P < 0.001). The MPV was mildly correlated with the aspartate aminotransferase (AST) level (r = 0.259, P = 0.011), the NLR (r = 0.245, P = 0.016), and the mean systolic BP (r = 0.215, P = 0.035).

Discussion: Elderly patients with emergency HT exhibited an increased MPV, NLR, WBC count, and hs-CRP level compared with urgent HT patients, supporting the idea that end-organ disease caused by high BP is associated with increased platelet activity and inflammation. Thus, these parameters may reflect HT status and the risk of organ damage in emergency HT patients

Keywords: Emergency hypertension, mean platelet volume, neutrophils, lymphocytes, high sensitive C reactive protein

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ABSTRACT NUMBER: 002

ACUTE INFERIOR MYOCARDIAL INFARCTION ASSOCIATED WITH THE INGESTION OF CAPTAGON PILLS: A CASE REPORT

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Introduction: Phenethylamine HCL, more commonly called as captagon in the market, is a synthetic stimulant consisting of a theophylline molecule covalently bonded to an amphetamine molecule (1). Most of the counterfeit Captagon tablets contains a combination of substances such asamphetamine, caffeine, ephedrine, quinine, theophylline acetaminophen and diphenhydramine. Even though the pathophysiology of myocardial infarction (AMI) causing amphetamine-like compounds such as amphetamine and phenetyline is not clear, this effect may be attributed to vessel wall narrowing and destabilization of the thrombus. In literature, some cases of acute myocardial infarction (AMI) associated with amphetamine and ephedrine abuse has already been reported (2). There is limited number of cases reporting AMI associated with the use of phenethylamine (3).In this study, we wanted to contribute to the literature by presenting the case of 23-year-old who develops acute inferior MI because the drug named captagon containing phenylethyline is used for pleasure effect.

Case report: A 23-year-old male patient was admitted to our emergency department(ED) with a severe chest pain accompanied by shortness of breath that started 2 hours ago. Electrocardiography (ECG) was withdrawn at ninth minute from when the patient entered the ED. On the II, III and aVF derivations of the patient's ECG, 5 mm ST-segment elevation was observed (Figure 1). Then in the echocardiography taken at the ED, there was hypokinesia in the inferior part of the myocardium. The cardiac risk factor for coronary artery disease was not pre-existing for the patient. The patient stated about 4-5 hours ago that he had swallowed 2-3 of the captagon tablets. The general condition of the patient was good, the vital findings were stable; however, slight agitation and restlessness were present. The patient underwent urgent angiography and the angiography result was normal (Figure 2).

Results: In the laboratory results of the first hour of the emergency department; troponin I value, 3.4 (normal <0.01 ng/ml); CK-MB value, 27.6ng/ml (N: 0-8.59) and other laboratory tests showed no abnormality. Because the coronary arteries were normal, the patient was discharged by adding diltiazem 60 mg orally three times a day to the treatment. After fifteen days, the hypokinesia in the echocardiography of the patient without any angina pectoris had disappeared.

Discussion: Acute myocardial infarction (AMI) occurring at coronary vasospasm secondary due to drug-induced in young and young adults is mainly associated with smoking, marijuana, some herbs, alcohol, cocaine and butane inhalation (4). In literature, a case with acute myocardial infarction due to the use of phenethyline HCl, which has been suggested to have an amphetamine-like effect, has been reported (3). Fenetylline HCL is illegally present in European countries and in particular produced in Turkey and is one of the most common substance used by the young and wealthy people in the Middle East. When the literature is examined; it seems that there is no enough resources related to the toxic, clinical features that come from the captagon. Although there is not enough evidence, cardiac insufficiency and cardiomyopathy are associated with the use of captagon tablets in younger individuals (5). In a report in Turkey, due to abuse of captagon tablets acute myocardial infarction has been reported. (3). although ST elevation were seen in ECG, angiography were norml in our case. It is estimated that in our case whose angiography is normally evaluated, acute inferior myocardial infarction resulting from vasospasm associated with the use of captagon tablets. The management of patients with AMI who have suffered from captagon use is unclear. Once the differential diagnosis of the patient is made, treatment should be planned. Considering the infarct-related coronary artery openness is the most important priority for patients with ST elevation AMI. Calcium channel blockers and nitrates may be effective in the treatment of vasospastic angina, as well as in the treatment of

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AMI secondary to the use of phenethyline HCl. Since our patient's angiography is normal and the ECG is compatible with inferior AMI, vasospasm has probably occurred. We did not use beta adrenoreceptor blockers in accordance with our literature knowledge.Diltiazem, a calcium channel blocker, started 60 mg three times a day.

Conclusion: The use of captagon should be my mind when young patients with ECG with elevated ST elevation and psychotic paternity with agitated and chest pain are evaluated in emergency department.

Key words: Phenyl ethylamine (captagon), acute inferior myocardial infarction, emergency department

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ABSTRACT NUMBER: 003

TOTAL OXIDATIVE STRESS AND TOTAL ANTIOXIDANT IN PATIENTS WITH ACUTE MIGRAINE PATIENTS IN EMERGENCY DEPARTMENT

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Introduction: Migraine is a common neurovascular disorder with incomplete understood pathogenic mechanisms. Several speculations on migraine pathogenesis have been requested in recent years. Vascular hypothesis and migraine pain hypersensitivity are in the topic of migraine research field. Migraine is associated with vasodilation and blood-brain barrier permeabilization due to neurogenic inflammation. In this observational study, we attempted to determine the Serum total oxidant status (TOS), total antioxidant status (TAS) and oxidative stress index (OSI) levels in patients with acute migraine attack were detect and compared to those in controls.

Material and methods: Forty-four patients with acute migraine attack and 44 healthy controls with similar age were included in the study. With the new automated extent practice developed by Erel, Serum TOS, TAS and OSI was measured. All statistical analyses were carried out using statistical analysis software (SPSS) type 20.0 (SPSS, Inc., Chicago, IL, USA). Student t test were performed using the numerical findings (e.g. TOS and TAS). A p value < 0.05 was considered as statistically significant.

Results: TAS level were 41,27±12,12 and TOS level were 0.50±0.14 in patients. Patients with acute migraine attack in emergency department, while 28.92± 8,45 and 0.78± 0.33 in controls, respectively. Patients with acute migraine attack had higher TOS level than those control subjects ($p<0.001$). Thus, the TAS level were significantly higher in the controls than patients ($p<0.001$).

Discussion: Patients with acute migraine attack had higher TOS level while control subject had higher TAS. Based on these results we can think that Patients with Acute migraine attack are subjected to oxidative stress.However; further studies are needed to confirm this

Key words: Total Oxidative stress (TOS), Total antioxidant status (TAS), Acute migraine attack, Emergency department

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ABSTRACT NUMBER: 004

CEREBRAL SINUS VENOUS THROMBOSIS IN PUERPERIUM: A CASE REPORT

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HEALTH SCIENCES UNIVERSITY, GAZI YASARGIL RESEARCH AND TRAINING HOSPITAL, EMERGENCY DEPARTMENT, DIYARBAKIR, TURKEY

Introduction: Talaytepe Mahallesi, Elazığ Yolu Üzeri 10.Km, 21010 Kayapınar/Diyarbakır

Case study: A 35 year old right-handed woman presented to our emergency department with diffuse, severe, sharp, stabbing headaches for two days. She had a history of delivery with spinal anesthesia 7 days ago. There was no nausea, vomiting, photophobia, and/or phonophobia. She had migraine history but there was no drug use. On presentation, her arterial blood pressure was 160/90 mmHg her other vital parameters were normal. Neurological examination of the patient was normal other nuchal rigidity. White blood count was increased (23,84/L) but, full biochemical screen, coagulopathy and thrombophilia panel, serum homocysteine levels, and markers of vasculitis including antiphospolipid antibodies were normal.
Results: Emergency computed tomography of the cranium was performed (Figure 1),There were dense vein signs in the transvers sinus and the superior sagittal sinus. We performed Magnetic resonance venography (MRV) which revealed a total occlusion in the right internal juguler vein, transvers sinus and the superior sagittal sinus (Figure 2). The patient was transferred to intensive care unit for further treatment.
Conclusion: The importance of detailed evaluation of headaches in emergency depertmant, especially in the presence of risk factors for thrombosis such as pregnancy, puerperium, oral contraceptive use, etc. CSVT must be kept in mind.
Keywords: Sinus Venous Thrombosis, Headache, Puerperium, Emergency Department
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ABSTRACT NUMBER: 005

WEIL'S DISEASE

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Introduction: Weil's disease is a serious condition caused by Leptospira interrogans which infects firstly mucous membranes or impaired skin. Contamination is because of direct contact with an infected animal or contaminated water sources. Patient's story typically contains gardening, farming, ranch work and contact with rodents or swimming in contaminated water. Weil's disease is characterized by jaundice, renal insufficiency and hemorrhage in the patient after encountering the agent. The disease can be seen endemic but generally observed as sporadic. Weil's disease's clinical manifestation is observed around % 5-10 within the patients of leptospirosis. In this presentation, we aimed to describe a phenomenon that is associated with weakness, nosebleeds, jaundice, decreased urine volume, and thought to be weil's disease.
Case: A 61-year-old male patient was admitted to the emergency room with complaints of fever, weakness for 6 days. Due to the same complaint, a treatment was started by another center. During this time, his complaints were not eased. In addition to his complaints, decreased urine volume, darkening of urine, complaints of epistaxis and jaundice began. The patient stated in his detailed anamnesis that there was no contact story with the contaminant water or livestock even though he worked at a ranch. Patient was using an antipyretic and antibiotic agent for six days. In first moments of his admission his body temperature was 37.3c, pulse rate: 116 and BP: 100/60 mmHg. Physical examination revealed no additional pathological findings other than jaundice. His blood work findings were; leukocyte: 6.3 103u/L, hemoglobin: 11.5g/dL, platelet count: 24 103u/L bilirubin: 12.4mg/dL, AST: 51u/L, ALT: 64u/L, BUN:135mg/dL, creatine: 6.8mg/dL. during the follow-up that the complaint of fever developed as expected. The patient who had an animal contact story was consulted to a infectious diseases specialist for fever, jaundice, renal insufficiency, low platelet counts. The patient was interned with preliminary diagnosis of weil's disease.
Conclusion: Story should be questioned in detail in patients with jaundice and renal insufficiency and fever. Weil's disease should be kept in mind in patients with story of contact with animal or contaminated water.
Keywords: Weil's disease, Emergency medicine, Leptospirosis
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ABSTRACT NUMBER: 006

A RARE CASE PRESENT WITH HEADACHE IN THE EMERGENCY MEDICINE; CEREBRAL VEIN AND DURAL SINUS THROMBOSIS (CVST)

***Selin Bulut**, Caner Sağlam, Hayriye Gönüllü, Mustafa Silcan, Özkan Eraslan, İsmet Parlak*
BOZYAKA TRAINING AND RESEARCH HOSPITAL

Introduction: Cerebral vein and dural sinus thrombosis is less common and life-threatening disease which has variable many clinical conditions. It is known that CVST can present different clinical features and has several causes, therefore CVST is a disease that may be encountered not only by neurologist and neurosurgeon, but also by emergency physicians. The aim of this case report is to provide an example of how early suspicion of CVST, even with initial negative imaging, is critical, as any delay in diagnosis and treatment can cause increased morbidity and mortality.
Case: A 40-year old female was admitted to the emergency room for onset of severe, on-going headache and left ear ache for the past 1 week. She has no past medical history, with no history of headaches. This is her second visit within the prior 36 hours. On the examination the patient had 15 of glaskow coma score with normal vital signs. Pupils were equal and reactive and there was no papillary edema. Neurological exam was benign with no evidence of meningism or any focal neurological deficit, cranial nerves were intact, Brudzinski and Kernig signs were negative. There was erythama and sensation of mastoid bone with palpation. The ear examination with otoscope were all normal with intact timpanic membrane and no erythema, oedema and exudate at outer ear canal. The laboratory results which included full blood count, urea, electrolytes, sedimentation and CRP were within normal limits.A non-contrast head and temporal CT scans were performed showing subarachnoid hemorrage in the left parietal lobe (Figure1). In addition, MRI venography was confirmed and showed a thrombosis in the left transverse, sigmoid sinus and jugular vein(Figure2-3).Neurology and neurosurgery consultations were requested. She was transfered to the department of neurology further diagnosed and treatment.
Discussion: CVST is a non common life-threatening neurological emergency and decreasing of CVST mortality rase is possible with eary diagnosis and treatment. CVST should be take into consideration for the differential diagnosis of patients who were admitted to the emergency department with several headache, because the threatment of CVTS and intracranial hemorraghe is completely different.
Keywords: cerebral vein sinus vein thrombosis, headache, venography
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ABSTRACT NUMBER: 007

A CASE OF SIGMOID VOLVULUS PRESENTING NAUSEA AND ABDOMINAL PAIN IN EMERGENCY MEDICINE

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Introduction: Volvulus refers to torsion of a segment of the alimentary tract, which often leads to bowel obstruction. The most common sites of volvulus are the sigmoid colon and cecum. 1 In generally, sigmoid volvulus is classically described as an illness in elderly persons, however some reports suggest that sigmoid volvulus occurs in younger age-groups more frequently than has been reported. The majority of patients with sigmoid volvulus present with the insidious onset of slowly progressive abdominal pain, nausea, abdominal distension and constipation. Sigmoid volvulus is an important emergency which requires rapid detorsion of the affected bowel. Emergency diagnosis is crucial.
Case report: 88 year old female, with hypertension and cerebrovascular disease history presented to the emergency department with nausea and abdominal pain for 2 days. She did not

reported constipation for last two days. There was no associated trauma, fever, diarrhea, recent travel or any surgical history.
On examination the patient was dehydrated, with normal vital signs. . (Blood preasure:120/80mmHg heart beats: 80 per minutes, temperature:36oC, respiratory rate:15 per minutes, oxygen saturation on room: 98%) Breath sounds were clear bilaterally and heart sounds were as a regular rate without murmurs. The abdomen was distended with tympanic percussion tones in all quadrants (figure-1). Digital rectal examination revealed an empty rectum. The patient's laboratory results which included full blood count, urea and electrolytes, serum amylase and liver function were all normal. Her chest (figure-2) and abdominal (figure 3) x-rays strongly suggested a sigmoid volvulus due to the presence of a distended bowel loop arising from the pelvis which projected over the epigastrium, the "coffee bean sign", scarcity of gas in the distal sigmoid and rectum. Computed tomography (CT) (figure-4) images were read by the staff radiologist as sigmoid volvulus with severe dilation of the colon. A nasogastric tube and Foley catheter were placed. Surgical consultation was requested. The patient was taken to the operating room for exploratory laparotomy. No intraoperative complications were noted, and patient was transferred to the surgical intensive care unit. . The abdominal distension resolved, stools were passed and she was discharged after 8 days of hospitalization.
Discussion: Sigmoid volvulus is a surgical emergency which requires prompt diagnosis, resuscitation and management. Urgent de torsion and assessment of the bowel mucosa must be performed.
Keywords: volvulus, sigmoid colon, abdominal distension, nausea
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ABSTRACT NUMBER: 008

BILATERAL ELBOW DISLOCATION IN AN ADOLESCENT DUE TO FALLI

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Introduction: Bilateral elbow fracture dislocations are extremely rare in the pediatric population. They are associated with female gender, joint hyperlaxity and gymnastics. Hormonal influences seem to increase injury vulnerability in teenage years.
Case: We present a 13-year-old children with bilateral elbow dislocations after landing fall on both hands.A 13-year-old adolescent female with simultaneous bilateral elbow dislocations after landing on both hands with extended elbows was brought to the emergency department by ambulance. The parents reported no of history consistent with joint hyperlaxity of the patient. There was no positive family history for joint hyperlaxity. Clinical examination showed deformity of both elbows with loss of posterior triangular relationships of the olecranon and epicondyles suggesting bilateral posterolateral elbow dislocation associated with swelling and hematoma formation
Discussion: The neurovascular status of either upper limb was unremarkable. Initial x-rays confirmed bilateral posterolateral elbow dislocations with associated displaced right lateral epicondyle fracture (Figure 1). Also we performed Computer tomography for right elbow. There was lateral avulsion epicondyle fracture (Figure 2). The dislocations were reduced in the emergency department under deep sedation by the orthopedic registrar. Non-circumferential above elbow plaster slabs were applied with inclusion and immobilization of the wrists. A check radiograph of both the elbows was taken to confirm the reduction of the elbow joints (Figure 3).
Conclusion: Bilateral elbow dislocation with epicondyle fractures is a rare injury in the pediatric population. Unilateral elbow dislocations are rare with 3–6% of all elbow injuries and there are only few studies describing this injury exclusively in children. There are a few cases report of a pediatric patient who sustained a simultaneous bilateral elbow dislocation with

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epicondyle fractures. Physical examination should be done in detail in children who are brought to emergency service after the fall.

Keywords: Bilateral elbow dislocation, adolescent, Emergency Department

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ABSTRACT NUMBER: 009

LOW-VELOCITY TRAUMATIC KNEE DISLOCATION ASSOCIATED WITH NEUROVASCULAR DISRUPTION

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Introduction: Herein, we report a case of a bicycle accident-related low-velocity lateral knee dislocation associated with neurovascular disruption including popliteal artery and peroneal nerve, resulting in lower limb acute ischemia.

Case: A 25-year-old man was admitted to the emergency department (ED) with severe left knee pain and swelling after falling off a bicycle. Examination identified dislocation of the left knee. The left dorsalis pedis and tibialis posterior pulses were absent. There was no motor dysfunction in his left foot but there was decreased sensation in the common peroneal nerve in his left leg. An anterior-posterior (AP) radiograph confirmed left lateral knee dislocation with no evidence of fracture . Closed reduction was performed and post-reduction images, including AP and lateral radiographs, were normal. Because the vascular and sensory deficits did not improve, a computerized tomography angiogram was performed, which indicated left popliteal artery occlusion. Subsequently, the dislocation was stabilized by a unilateral femorotibial external fixator, and vascular repair was performed in the operating room by the traumatology and vascular surgical teams. Damage to the neurovascular system very rarely arises from displacement of the femur relative to the tibia, and is especially rare in cases of low-velocity and lateral knee dislocation. Neurovascular status is one of the most important concerns when treating patients with a knee dislocation. The pedis and tibial pulses should be carefully examined in the ED before and after reduction of the dislocation, to determine if there is an arterial occlusive lesion.

Discussion: This index case focuses on managing a patient of uncommon traumatic lateral dislocation of the left knee in association with disruption of the soft tissues including left popliteal artery, and common peroneal nerve, resulting in lower limb acute ischemia following a low-velocity bicycle accident. Femorotibial dislocation of the knee (knee dislocation) is typically classified in terms of tibial displacement with respect to the femur. There are five main types of knee dislocation: anterior, posterior, medial, lateral (which is extremely rare), and rotary. Knee dislocations can be further classified into high- and low-velocity injuries. High-velocity dislocations are more likely to involve neurovascular damage and disruption of soft tissues. Low-velocity knee dislocations result in lower rates of neurovascular damage. Disruption of the popliteal vascular system occurs in approximately 20% to 40% of all knee dislocations.

Keywords: Femorotibial dislocation, lateral knee dislocation, neurovascular damage popliteal artery, peroneal nerve

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ABSTRACT NUMBER: 010

NEW-GENERATION ANTICOAGULANT AND ANTIPLATELET AGENTS. WHAT DOES THE LITERATURE SAY?

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Introduction: Dual antiplatelet therapy (optimal platelet inhibition) is an accepted treatment modality for acute coronary syndromes (ACSs) for years. In ACS, particularly in ST elevation myocardial infarction (STEMI), dual antiplatelet therapy should be commenced without delay. However, this therapy has some limitations. Early or late thrombosis particularly with drug eluting stents has constitute an important problem. This has been considered to be secondary to person-specific differences of the drug's efficacy, and studies to overcome this problem by developing novel antiplatelet agents have gained pace. The promising results of these studies have introduced the new generation P2Y12 inhibitor antiplatelet agents into daily practice, namely prasugrel and ticagrelor.

Material and methods: Both European Society of Cardiology (ESC) and American Heart Association (ACCF/AHA) guidelines have given prasugrel and ticagrelor priority and pushed clopidogrel into the background. In the ESC guidelines issued in 2014 P2Y12 inhibitors are recommended to be commenced at first medical contact in the emergency department. The TIRITON-TIMI 38 study is the main study determining the role and application of prasugrel for ACS treatment. That study compared the efficacies and safeties of prasugrel and clopidogrel by randomizing patients with ACS who were planned to undergo PCI to clopidogrel (300 mg oading dose and 75 mg/day maintenance dose) and prasugrel (60 mg loading dose and 10 mg/day maintenance dose). The study results showed that, as compared to clopidogrel, prasugrel significantly reduced the rates of ischemic events including cardiovascular death, non-fatal myocardial infarction (MI), and stroke. PLATO is the main study determining the role of ticagrelor in ACS treatment. That study showed that ticagrelor significantly reduced the rates of primary composite endpoints like vascular death, non-fatal MI, and non-fatal stroke.

Results: Patients are under the risk of thrombotic complications despite dual antiplatelet therapy following ACS. In addition to new generation antiplatelet agents for secondary prevention, new generation anticoagulants have also been developed. Among those, activated Xa antagonists (anti-Xa; Rivaroxaban, Apixaban, Edoxaban) and direct thrombin inhibitors (Dabigatran) were first introduced for patients with atrial fibrillation and showed to be effective for stroke prevention. The main study of dabigatran (Pradaxa®) (RE-DEEM) showed that it was ineffective for prevention of cardiovascular death, myocardial infarction, and stroke. Additionally, it is unsafe due to increased rate of dose-dependent bleeding. The main studies of rivaroxaban (Xarelto®) (ATLAS ACS-TIMI 46, ATLAS ACS 2–TIMI 51) demonstrated that it is effective for protection against cardiovascular death, myocardial infarction, and stroke following an episode of ACS, and it was approved by European Medicine Agency for that indication.

Conclusion: In conclusion, addition of new generation oral anticoagulants to dual antiplatelet therapy for secondary prevention following ACS reduced recurrent ischemic events by 15% although it also increases the rate of clinically meaningful bleeding by three times. More studies are needed to determine the effective and safe dose ranges of these agents.

Keywords: antiplatelet therapy, P2Y12 inhibitor antiplatelet, new generation anticoagulants, ST elevation myocardial infarction

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ABSTRACT NUMBER: 011

THE EFFECTS OF SYSTEMICALLY ADMINISTERED METHYLPREDNISOLONE AND RECOMBINANT HUMAN ERYTHROPOIETIN AFTER ACUTE SPINAL CORD COMPRESSIVE INJURY IN RATS

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Introduction: The objective of this study was to evaluate whether recombinant human erythropoietin (rHu-EPO) and methylprednisolone (MPSS) improve neurological function and histopathological changes if systemically administered after traumatic spinal cord injury.
Materials and methods: The study design was to decrease the damage of spinal cord on the experimentally induced acute spinal cord injury in rats. This study included 48 rats that underwent experimental SCI. Forty-eight animals were randomly divided into six groups. Animals constituted a moderate compression of 0.6 N that was produced by application of an aneurysm clip at level T3 for 1 min. rHu-EPO (1,000 and 3,000 U (Unit) per kg of body weight i.p.) and MPSS (30 mg/kg) were administered 5 min after injury, and control group was saline treated. (1) Control group (n=8), (2) MPSS group (n=8), (3) rHu-EPO 1,000 U group (n=8), (4) MPSS + rHu-EPO 1,000 U group (n=8), (5) rHu-EPO 3,000 U group (n=8), and (6) MPSS + rHu-EPO 3,000 U group (n=8). The neurological function and histopathology were evaluated at 24 and 72 h.
Results: According to the neurological functional test scores significant improvements between the control group and the other groups that had taken medical treatment were observed ($P<0.001$). Histopathologically severe ischemic findings were observed in the control group. A significant decrease in ischemic damage was detected in MPSS + rHu-EPO 3,000 U group ($P<0.001$).
Discussion: The most significant neurological functional and histopathological improvements were observed after systemically administration of MPSS + rHu-EPO 3,000 U and rHu-EPO 3,000 U. Furthermore, the MPSS + rHu- EPO 3,000 U group provides the most improved neurological functional and histopathological recovery.
Keywords: Spinal cord injury, Erythropoietin, Methylprednisolone, Neurological function, Histopathology

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ABSTRACT NUMBER: 012

PRIMARY AND SECONDARY AORTOENTERIC FISTULAS. TWO CASE REPORTS.

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Introduction: Aortoenteric fistula is a life threatening condition that is equally difficult to diagnose and to treat. It is classified as two groups; primary and secondary. Primary aortoenteric fistulas occur spontaneously between aorta and relevant bowel segment. The secondary fistulas occurs in patients with aortic greft operation history. Pathophysiology is unclear but it's thought there is involvement with infected aortic graft.
We aimed to report two patients; one who is a 62-year-old male with secondary aortoenteric fistula and the other one who is 69-year-old with a primary aortoesophagial fistula.
Case report 1: A 62-year-old male patient referred to us with 2 days of abdominal pain and blackened stool. In his background there was a graft on abdominal aorta aneurysm approximately six years ago. The rectal examination of the patient who described the pain in the epigastric region was observed in the form of melena. His vitals were; BP: 105/62 mmHg, pulse: 113bpm, body temperature: 360C, ecg: sinus rhythm. Performed endoscopy indicated that there was a fistula orifice in lateral wall of the second part of duedonum with addition to active

bleeding. IV contrast-enhanced CT angiography was performed on the patient suspected of diverticula hemorrhage or aortoenteric fistula. CT findings included occluded aortal graft and infective process around occluded aortal graft material. Aortoenteric fistula is coherent in specified area. Whilst general surgery and cardiovascular surgery were preparing for operation, the patient voluntarily left the hospital to go to another center.

Case report 2: A 69-year-old male patient was referred from an external center to our hospital emergency department for the complaint of bloody vomiting. In his background, the patient had COPD, hypertension and aortic aneurysm story. At onset patient was conscious, orientation was optimal and GCS: 15. His vitals were; BP: 147/77mmHg, pulse:86/bpm, respiratory rate:20/dk, body temperature:36oC, blood glucose level: 186mg/dl, SO2:%98. Abdominal and rectal examination showed no pathological findings. In fact there were no clue whatsoever other than pale skin. 20 minutes after submission patient's state of consciousness had deteriorated, sudden chest pain and agitation began. After the patient's state's acute change an IV contrast-enhanced CT angiography was performed rapidly. Findings were coherent with aneurysmatic dilatation of thoracic aorta which had 9 cm length and 7 cm width in it's widest section. Also there was 3 cm wide thrombus in the anterior wall of specified section. Contrast extravasation was observed in said area. The findings were evaluated as compatible with esophageal fistula. Right after the screening, the patient had massive bloody vomiting. Patient was performed endotracheal intubation to secure his airway. Cardiac arrest occurred and CPR performed adequately. Pulse and BP could not be measured. After a proper time, patient announced dead.

Discussion: Patients who applied to ER with acute chest pain and unexplained gastric bleeding should be carefully questioned for aortic pathologies. Although it is relatively easy to think of this diagnosis in patients underwent aortic surgery, it should be kept in mind that an aortoenteric fistula may form even in patients without any operative history.

Keywords: Hematemesis, Hemorrhage, Aortoenteric fistula

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ABSTRACT NUMBER: 013

SUBDURAL HEMATOMA DUE TO SPONTANEOUS ARACHNOID CYST RUPTURE

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Introduction: Arachnoid cysts are extra-axial cystic cavities filled with Cerebral-Spinal Fluid (CSF) or with a fluid resembling CSF. Arachnoid cysts might be primary or congenital and may develop secondary to pathologies such as extra-axial hematoma, trauma, tumor or infection [1,2]. The natural course of arachnoid cysts is not fully understood. Most of them progress silently, while some others might be complicated with the development of subdural effusion, subdural hematoma, and intracerebral or intracystic hemorrhage. We aimed to present a case with spontaneous rupture of an arachnoid cyst associated with subdural hematoma located light parietal lob of the brain

Methods: We aimed to present a case with spontaneous rupture of an arachnoid cyst associated with subdural hematoma located light parietal lob of the brain.

Case: A Nine year-old girl was admitted to the neurosurgery department of Gazi Yasargil education an research hospital, Health science University with complaints of the headache and vomiting in February 2018. His physical examination was unremarkable and he had no history of trauma.

Discussion: Intracranial hemorrhages associated with arachnoid cysts usually occur secondary to minor head traumas and spontaneous bleeding are observed extremely rarely. Hematomas secondary to the rupture of arachnoid cysts spontaneously or due to traumas should be treated in an individual based manner that is specific to each case, either conservatively or surgically.

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There were no trauma stories in our case. The patient was treated surgically and discharged after week.

Keywords: Subdural Hematoma, Arachnoid Cyst Rupture, Neurosurgery

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ABSTRACT NUMBER: 014

ACUTE PULMONARY OEDEMA

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Introduction: Acute pulmonary edema (lat. Oedema pulmonis) is an emergent, life threatening and dramatic state which requires prompt and adequate intervention.
It is abnormal accumulation of fluid in the tissue and air spaces of the lungs, caused by increased pressure in the lungs capillaries or by disorder in capillary-alveolar membrane permeability, which allows fluid flow from capillaries into alveolar space.
Pulmonary edema is most commonly found at patients who are out of hospitals, with cardiogenic problems, with failure of the left heart ventricles which leads to increasement of diastolic blood pressure and dyspnea.
The cause of pulmonary edema can be divided into cardiogenic and non-cardiogenic. Non – cardiogenic pulmonary edema is usually caused by local damage of the capillaries whose rupture floods the alveoli. Damage is caused by bacterial infection, chemical irritation, allergies, metabolic disorders and other non-cardiogenic causes, which lead to breakage of the permeability on capillary-alveolar membrane
Method: A case report from the practice of the EMS Podgorica
Case: On the 25th of December 2017, in the EMS Podgorica came M.Š., 65 years old, is being brought in the wheelchair with breathing problems, swollen with sweat, shortness of breath. I've noticed central type of cyanosis, dyspnea, orthopnea, swollen neck veins. Patient could not respond to my anamnestic questions because of the severity of the symptoms. With further examinations I found BP 160/100mmHg, SaO2, 78%, end-inspiratory crackles on auscultation. Heart rate was 100/min, heart action rhythmical, tachycardia, without abnormal sounds. ECG was not possible to do because of patients' incapacity to lay-down.
Patient has been given amp. Furosemid i.v.; tbl. Zorkaptil 25mg s.l. He has been taken in our transporting vehicle to the ER. We gave him oxygen therapy through the mask 5l/min. During the transport we were monitoring patients' state, dyspnea was passing, the patient starts to communicate with us. His breathing difficulties were gone and he has a need to urinate.
At the hospital he has been observed and treated for a few days. After a couple of days he's been discharged home**.**
Discussion: The most important thing is differentiation of cardiogenic from non-cardiogenic pulmonary edema, and differentiation of asthmatic attack from acute pulmonary edema so that it can be quickly resolved and cured in the proper way.

Keywords: Acute pulmonary oedema

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ABSTRACT NUMBER: 015

EFFECTS OF L-CANITINE AND N-ACETYL CYSTEINE ON NONALCOHOLIC HEPATOSTEATOSIS IN RATS

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Introduction: External fixator is rarely used in the treatment of femur fractures in comparison to the lower leg. However, in open fracture of the femur with a large lesion of soft tissues and especially in gunshoot wounds, as is the case here, it is the method of choice.
Case report: We present a young man 22 years old, strong constitution, who sustained a gunshot injury of the middle third of the right thigh. Accidental injury sustained while hunting with carbine bullet.From hunting ground he was brought by private car to DZ Bela Crkva with Esmarch torniquet. Ambulance, with transport immobilization, tamponated wound with compression gauze and i.v. cannula and fluid replacement, brought patient to OB Vrsac. It took 90 minutes from injury to arrival at the hospital and distance was about 55 km. After Po arrival in OB Vršac patient underwent clinical, laboratory and X-ray exam. Gunshot wounds with soft tissue defect in the right upper thigh as well as multiple fracture of the right femur was diagnosed. With intensive resuscitation measures (fluid resuscitation and analgesics) and OET anesthesia primary surgical treatment of the wound was performed with generous rinse of the wound, hemostasis of large blood vessels that have not been damaged a fracture was stabilized with an external fixator for the femur by Mitkovic. Three pins are positioned above the fracture zone and three below. Pins were placed in the sagittal and frontal plane. Angle between the wedges was 60 degrees. Wound has not been sutured. Triple antibiotic therapy was administered.
Results: In the post operative course, wound was dressed regularly, healing was per secundam intentionem. After the appearance of granulation 24th day, secondary suture was placed. A week after the injury, the patient is trained to walk with crutches. Fracture heals and after 7 months fixator removed.
Conclusion: After the completion of physical therapy limited range of motion persists in the knee joint F 100, E -5. Length of the femur is preserved. Walk is inconspicuous. There is no osteomielitis.
Keywords: Nonalcoholic Hepatic Steatosis (NHS), L-carnitine, N-acetylcysteine, Rat
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ABSTRACT NUMBER: 016

KIRKPATRICK'S FOUR-LEVEL TRAINING EVALUATION MODEL

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Introduction: In 1954, Dr Donald Kirkpatrick wrote his PhD dissertation on evaluation of training for industrial supervisors. He applied four steps he learned from Dr Raymond Katzell, a prominent psychology researcher at the time. Kirkpatrick's has four levels of evaluating training effectiveness. It is sequentially integrated and comprehensive. It goes far beyond 'smile sheets' into actual learning, behavior changes and actual results, including long-term evaluation
Methods: Retrospective analysis of the literature with settings: Kirkpatrick Methodology, model, levels, principles. Searching is done through: PubMed, Medline and electronic journals accessible via KoBSON.
Results: The Kirkpatrick's model has four level in educational process: LEVEL 1 - REACTION. This level measures how your trainees (the people being trained), reacted to the training. Obviously, you want them to feel that the training was a valuable experience, and you want them

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to feel good about the instructor, the topic, the material, its presentation, and the venue. It's important to measure reaction; because it helps you understand how well the training was received by your audience. It also helps you improve the training for future trainees, including identifying important areas or topics that are missing from the training.
LEVEL 2 - LEARNING. At Level 2, you measure what your trainees have learned. How much has their knowledge increased as a result of the training? When you planned the training session, you hopefully started with a list of specific learning objectives: these should be the starting point for your measurement. Keep in mind that you can measure learning in different ways depending on these objectives, and depending on whether you're interested in changes to knowledge, skills, or attitude. It's important to measure this, because knowing what your trainees are learning and what they aren't will help you improve future training.
LEVEL 3 - BEHAVIOR. At this level, you evaluate how far your trainees have changed their behavior, based on the training they received. Specifically, this looks at how trainees apply the information. It's important to realize that behavior can only change if conditions are favorable. For instance, imagine you've skipped measurement at the first two Kirkpatrick levels and, when looking at your group's behavior, you determine that no behavior change has taken place. Therefore, you assume that your trainees haven't learned anything and that the training was ineffective. However, just because behavior hasn't changed, it doesn't mean that trainees haven't learned anything. Perhaps their boss won't let them apply new knowledge. Or, maybe they've learned everything you taught, but they have no desire to apply the knowledge themselves.
LEVEL 4 - RESULTS. At this level, you analyze the final results of your training.
Conclusion: Kirkpatrick's Four-Level Training Evaluation Model can help us objectively analyze the effectiveness and impact of training, so that we can improve it in the future
Keywords: Kirkpatrick's Four-Level Training Model

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ABSTRACT NUMBER: 017

RESPONSE TO A MAJOR INCIDENT IN PRE-HOSPITAL SETTINGS

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Introduction: A mass casualty major incident is defined as any incident where the location, number, severity, or type of live casualties requires extraordinary resources. They tend to be classified in three ways: Natural major incidents, Man-made incidents (cover incidents involving transport) and terrorism.
Data source and selection of materials: Retrospective analysis of literature with settings: major incident, mass casualty, response. Searching is done through: PubMed, Medline and electronic journals accessible via KoBSON as well literature available in the Library.
Results of synthesis: Interventions of an EMS trams are applied at the scene (operational and tactical) and beyond (strategic) at a designated location distant to the event (gold command). In summary, initial priorities are to save life, relieve suffering, and prevent escalation of the incident followed by protection of the environment, preservation of infrastructure, and property with a subsequent restoration of normality and facilitation of enquiries. Commanders at the scene are described as operational commanders and the healthcare response is led by a medical and ambulance commander. Two main cordons are established to ensure safety and security at the scene and support movement to and from the incident. An inner cordon covers the incident site, enclosing the operational zone and has restricted access under fire/police control. An outer cordon is physically established by the police to prevent unauthorized access to areas used by the emergency services. Depending on the nature of the incident, there may be multiple operational areas each requiring its own commander. Safety at the scene has individual and collective aspects. Each rescuer is required to have appropriate personal protective equipment in order to enable access to the incident site. Collectively (applying principles of distributive

justice), the scene should also be secured and made safe in order to prevent rescuers becoming casualties. With respect to devices, radios (with specified, secure talk-groups with recording) are the mainstay of communication within and across services. Medical supports have three main goals (triage, treatment, and transport).

Conclusion: Management systems used in the initial pre-hospital setting can enable hospital staff to comprehend the problems faced by emergency services and develop their own plans to deal with casualties.

Keywords: mass casualty, management, EMS

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ABSTRACT NUMBER: 018

UNKNOWN INSECT BITE CAUSING MYOCARDITIS

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Introduction: Most of the insects are generally not aggressive unless confined or disturbed. Most of the bites are seen on extremities. These insect bites may cause a large variety of clinic from local effects to death. However acute myocardial ischemia and myocarditis are seen rarely, even after black widow spider. In this unique case we present a young male with myocarditis after an unknown insect bite.

Cese: A healthy 18-year-male admitted to emergency department because of gastric pain occurred after an insect bite during a walk at university campus. He felt a dizziness after the bite and gastric pain started. His vitals were normal except BP; 138/82 mm/hg, HR; 102 beats/minute. The patients hematologic and basic biochemical parameters were normal. He had an elevated Troponin T (17.1 pg/ml) level. His antithrombotic drugs started in Emergency Department and then admitted to cardiology department and underwent coronary angiography. His cardiac arteries and blood flow were normal. He diagnosed with myocarditis and followed 4 days in cardiology department. He controlled for one month and no complication was observed.

Discussion: There is a wide variety of insects and multiplying toxins can be seen in environment. The effect of the toxins may cause local effects but, in some cases, cardiovascular effect may be observed and lethal. The most known toxin is alpha-latrotoxin, a protein that causes catecholamine release at adrenergic nerve endings and acetylcholine depletion at motor nerve ending. Although the nervous system is the primary target of alpha-latrotoxin, other tissues, such as the heart and lungs, are also susceptible to the toxic effect of alpha-latrotoxin. But there are other toxins causing cardiac effects .

In our case the insect causing the myocarditis could not be defined. But in emergency settings identifying the specie has a minimal role on patient management. Most of the patients are experiencing percutaneous angiography because it is vital to evaluate the coronary arteries. And due to variety of personal characteristics and toxins different cardiac effect may be observed. And routine cardiac patient management is important.

Conclusion: Myocardial involvement after an insect bite is rare and can be fatal. We present a rare case of severe insect envenomation complicated by myocarditis. Identifying the toxin or insect has a minimal role in patient management. And cardiac work up is recommended to exclude other pathologies and cardiac damage due to toxins.

Keywords: myocarditis, insect bite, toxicology

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ABSTRACT NUMBER: 019

KOUNIS SYNDROME; NOT A MYTH

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Introduction: Anaphylaxis rarely manifests as a vasospastic action. And due to that vasospasm acute coronary syndrome is a rare klinic with or without the presence of underlying coronary artery disease. We present a case of anaphylactic acute coronary syndrome seen an anaphylactic clinic due to spider bite. One of the main pathophysiological mechanism of the allergic anginal syndromes is the inflammatory mediators released during a hypersensitivity reaction triggered by insect bites. It is important to appropriately recognize and treat Kounis syndrome.
Case report: 27-year-old woman without a medical history presented to emergency department with chest pain and itch. She had a spider bite 12 hours ago. Her vitals were normal except blood pressure was 97/49 mm/hg. The initial electrocardiogram demonstrated ST-segment elevations in leads II, III, and aVF. His hemogram and basic chemistry panel were unremarkable but elevation in creatinine kinase and troponin T (98.18 pg/ml). She underwent percutaneous angiography, but all cardiac arteries and circulation were normal. The patients diagnosed with Kounis Syndrome Type 1. She was discharged after 3 days of hospitalization.
Discussion: Kounis syndrome was first described by Kounis and Zavras in 1991 and has been referred to as “allergic angina” or “allergic myocardial infarction (1). The mechanism of Kounis syndrome (KS) involves release of inflammatory cytokines through mast cell activation (due to drugs, toxins etc.), which leads to coronary artery vasospasm and/or atheromatous plaque erosion or rupture. Type I includes patients with normal coronary arteries without predisposing factors for coronary artery disease in whom the acute allergic insult leads to coronary artery spasm with normal cardiac biomarkers or infarction with positive cardiac biomarkers. This variant represents a manifestation of endothelial dysfunction or micro vascular angina. The type II variant includes patients with culprit but inactive pre-existing atheromatous disease, in which the allergic insult leads to plaque erosion or rupture, leading to acute myocardial infarction or coronary vasospasm with normal cardiac enzymes. The type III variant includes coronary artery stent thrombosis secondary to allergic reaction (2).
Our case presents a typical Kounis Syndrome Type I. Normal angiographic finding an allergic reaction was typical(3). With the enlightenment of literature research this is the one of the youngest case. Pathophysiological process is different from normal coronary syndrome so Kounis syndrome can be seen in all age groups. Morphine, an important drug for treating acute chest pain, should be avoided in KS, as it may potentially stimulate histamine release and exacerbate the pathologic events in KS(4). pinephrine, which is used routinely for the treatment of anaphylaxis, should also be used with cautionary monitoring, as it may potentially worsen coronary vasospasm and aggravate coronary ischemia in KS(4).
Conclusion: Kounis Syndrome has a different pathophysiology. And the drugs used routinely may harm patients With Kounis Syndrome. Identifying this rare syndrome is the mile stone of the treatment and patient management.
Keywords: kounis, hypersensitivity, anaphylactic

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ABSTRACT NUMBER: 020

ABDOMINAL ABSCESS IN A PATIENT WITH PERITONEAL DIALYSIS

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Introduction: Peritoneal dialysis (PD) is one of the modes of renal replacement therapy being utilized for the management of end-stage renal failure in our institution. PD supports a greater lifestyle flexibility and independence, more flexible dietary guidelines, more stable blood

chemistry and body hydration and longer lasting residual kidney function. But PD has its complications also. The complications include weight gain, hernias due to catheter placement, inadequate dialysis and infection. Most of the infected patients suffer from catheter site infection and peritonitis but abdominal abscess is a rare condition. Here we present a patient with peritoneal dialysis who suffers from abdominal abscess.

Case report: 60-year-old woman admitted to emergency department with abdominal pain. She had a history of peritoneal dialysis for 13 years (changed to haemodialysis one year ago) and diabetes. Her vital signs showed no abnormality except body temperature was 37.2 C0 . Physical examination showed an abdominal distention. Her BUN and creatinine levels were high as expected but showed no other abnormality on hematologic and biochemical parameters. Abdomen ultrasonography showed a sub-diaphragmatic a cystic presence with solid components and a diameter 20*10 cm. The cystic component was drained with a needle with radiological assistance and 12 f drainage catheter was placed. The patient admitted to general surgery department for 4 days and improved. The aspirated material was undergoing histological and microbiological analyses and showed no malignancy findings but infectious process.

Discussion: Abdominal abscess is mostly caused by surgical intervention to abdomen. PD is a good alternative to haemodialysis but has own complications like catheter site infections and peritonitis(1). As shown in our care most of the patients has a history of surgical intervention(2, 3). Our patient's PD was changed to haemodialysis for one year ago. In the literature there are cases of abdominal abscess more than one year after laparoscopic intervention(4). Interventional radiology is a good and minimal invasive procedure for managing the patients with abdominal abscess, but this technique does not guarantee %100 success(5). Some of the patients need laparotomic surgery. Our patient improved after drainage and antibiotics.

Conclusion: Abdominal abscess is a rare condition mostly seen among older and immunosuppressive patients. Nearly all of the patients with abdominal abscess have a history of abdominal intervention. Early recognition, treatment an intervention is necessary for patient outcome.

Keywords: peritoneal dialysis, abdominal complications, abscess

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ABSTRACT NUMBER: 021

SPONTANEOUS PNEUMOCEPHALUS PRESENTING WITH EPISTAXIS

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Introduction: Pneumocephalus is an intracranial gas collection resulting from trauma, surgical procedures and on rare occasions are spontaneous. Pneumocephalus secondary to trauma, infection or a tumour is a rare entity. In the absence of an underlying cause, it is considered to be spontaneous and represents around 1% of cases of pneumocephalus. We will present a spontaneous pneumocephalus case admitted to hospital with epistaxis.

Case report: 48-year-old male admitted to emergency department with epistaxis. He had no medical history surgical interventions or any features suggestive of CSF, rhinorrhoea or meningitis and trauma. His vital signs were stable and on physical examination there was no significant finding. He mentioned a headache started with bleeding. Laboratory findings were all normal. Despite of symptomatic treatment headache persisted and because of that brain computed tomography (CT) planned. CT scan of brain showed multiple hypodense lesions diffusely over brain parenchyma. The final diagnosis was pneumocephalus. ENT check-up was normal. HRCT of base of the skull was done which revealed no break in the cribriform plate. A diagnosis of atraumatic pneumocephalus was made. The patient was subsequently treated conservatively and recovered.

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Discussion: Pneumocephalus defined as presence of gas within any of the intracranial compartment. Pneumocephalus is usually caused by trauma (75%), neurosurgical procedure, neoplasm (13%) and infection (9%) or rarely may it be spontaneous (1). It is due to disruption of skull after trauma, surgery or by tumour. It was first recognised in autopsy in 1866 in a trauma patient. Wolff first coined the term pneumocephalus in 1914(2). Luckett used x-ray skull to recognise this entity. But with advancing technology CT scan of the brain can detect 0.5 ml of air. Common clinical manifestations are headache (38%), nausea, vomiting, seizure, dizziness. our patient's main complaint was epistaxis which is a rare complaint of the spontaneous pneumocephalus (3). The prognosis is largely related to the type of injury and the number of air bubbles or pockets. It has been shown that a neumocephalus with multiple air bubble is prognostically unfavorable, regardless of the mechanism of injury. Our patient was followed conservatively and recovered (4).
Conclusion: Spontaneous pneumocephalus is a rare pathology. Persistent neurologic symptoms are typical may suggest spontaneous pneumocephalus. Emergency clinicians should consider this rare condition among the patients who have persistent neurologic symptoms
Keywords: spontaneous pneumocephalus, epistaxis

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ABSTRACT NUMBER: 022

BURNING OF A STRETCHER; THINGS TO PAY ATTENTION DURING PHYSICAL RESTRICTION

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Introduction: Physical restriction is an uncommon method in emergency department especially used for intubated and psychiatric patients. This method is applied to prevent physical and environmental damage to the patient himself/herself or to the other patients, is preferred when the chemical restriction is insufficient. Although physical restriction has been shown to protect patients and medical interventions, there are side effects. these side effects include psychological problems like insomnia and delirium but also soft tissue trauma and even fractures. In the event of inappropriate physical restriction other effects may occur with presence of psychological factors.
Case report: A 33-year-old male patient was brought to the emergency room with aggression and self-harm.It was observed that the patient was agitated, and his vitals was normal. Patient was fixed at 4 points because his aggressiveness continued after taking Ativan 1 mg per oral. While his agitation decreasing for 4 hours flames were seen to rise from the patient's stretcher. After the fire was extinguished, it was learned that he was trying to burn himself with the lighter that he had pulled out of his pocket. A second-degree burn occurred in the right hand of the patient and was admitted to the psychiatric service.
Dusscusion: Physical restriction is a method applied by two-point, four-point body and hip fixation. Physical restriction is a preferred method when chemical restriction cannot be done or is inadequate. It can also cause damages like any other medical interventions. There is datum in the literature that the physical restriction is used at least once for the intubated patients in intensive care unit more than 50%. The most common causes include preventing the patient from harming himself or herself, ensuring that the intubation tube and catheter are not withdrawn, and agitation. Despite the fact that studies show that it contributes to the safety of treatment, it has been shown to cause agitation, bad dreams, feelings of pressure and post-traumatic stress disorder in the case of physical restriction. In addition to these allergy, soft tissue damage and even fractures can be seen.
In our case, a different way of self-harm was chosen. Despite the restriction, patient's attempt to burn the stretcher with a lighter in his pocket is the first case in literature. Whatever the cause, physically restricted patients have negative psychiatric effects. So, the restricted patients must

be kept away from the things he or she may harm himself. Patient's belongings must be examined.
Conclusion: Every patient who is physically restrained should be assessed for the things he or she may harm himself.
Keywords: strecher, burns, physical restriction
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ABSTRACT NUMBER: 023

ACUTE MYOCARDIAL INFARCTION (AMI) AMONG YOUNG ADULT

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Introduction: Acute myocardial infarction (AMI) among young (under 40 years) is relatively uncommon. Still, it is an important problem for the patient and the treating physician, as these patients have different risk factors, clinical presentation and prognosis than the older patients.
Data source and selection of materials: Retrospective analysis of literature with settings: Acute myocardial infarction, young adult, coronary artery disease, risk factors. Searching is done through: PubMed, Medline and electronic journals accessible via KoBSON as well literature available in the Library.
Results of synthesis: MI in young can be divided in to two groups, those who have normal coronary arteries on angiography and those with coronary artery disease (CAD). Some young MI patients have normal coronary arteries. The MI in them can be caused by arteritis, thrombosis, or spasm. Most common reasons for this are such as protein C and protein S deficiency, antiphospholipid syndrome or nephritic syndrome. Coronary artery spasm can cause MI in patients with cocaine abuse and also in association with alcohol binges. In the second group of young MI (those with CAD), it is mostly a result of atherosclerotic process, which starts in early childhood. Milanig et al., in a necropsy study of 760 young patients, dying of various causes found that 20% of men and 8% of women in the age group between 30-34 yrs had evidence of Coronary heart disease (CHD). Etiology of athermanous CHD is limited to conventional risk factors, as in adults, with some differences. Zimmerman et al., found prevalence of smoking in 92% of young CAD patients; Mukherjee et al., found prevalence of smoking to be higher in those less than 40 yrs of age, compared to those above 60 yrs (58.7 Vs 43%), in patients who underwent percutaneous trans luminal coronary angioplasty (PTCA). It seems that smoking is to be the most common risk factor, present in around 60% of young MI patients and family history of CAD. Lipid abnormalities, especially raised TG and low HDL were found in around 50% patients. Xie et al., also found diabetes mellitus, hypertension and hyperlipidemia as important risk factors in young women with acute MI. They found that each of these risk factors had around 50% prevalence. Spontaneous coronary dissection is one of the rare causes of MI, especially in young women, in peripartum period. Coronary artery aneurysm may also be a cause of MI in young. These may be congenital or acquired, secondary to Kawasaki's disease in childhood. Angiographic findings are different in young MI patients compared to older MI patients. Increased prevalence of normal coronary arteries (up to 18%) and minor coronary abnormalities were found in Coronary Artery Surgery Study (CASS). Single vessel disease was found in 38% of subjects. Xie et al., found SVD in 71.8% in a study of AMI in young Asian women. Younger patients with MI have a better prognosis. **Conclusion:** MI in less than 40 yrs of age is almost exclusively seen in male. Smoking, hypertension, high TG, low HDL and raised Lpa are major risk factors. Around 10% patients have normal coronary arteries. Anterior wall MI is more common and most of the patients have single vessel disease. In hospital, mortality is low.
Keywords: Acute myocardial infarction, young adult, coronary artery disease, risk factors
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ABSTRACT NUMBER: 024

IMAGING THE EXAMINATION SIGNS: CASE REPORT

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Introduction: High velocity trauma is an indication for pan CT but examination is compulsory. MRI is used in the patients with cervical trauma and is superior to CT about showing the lesion site.
Case report: Forty seven year old patient, injured in high velocity traffic accident, brought to emergency service. He had normal physical examination but bilateral upper and lower extremities with 1/5 motor function loss and 2/5 motor function loss in bilateral fingers in upper extremities. CT has done for high velocity trauma. In his cervical CT fracture in C3 through left lateral foramen. But in his MRI spinal cord edema was inferior from the fracture level as C6 and C7.
Conclusion: Patients with high velocity traumas should be examined carefully. If necessary advanced imaging techniques should be used to avoid misdiagnose in the light of these findings.
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ABSTRACT NUMBER: 025

ONE LUNG MISSING?

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Introduction: Lung aplasia and agenesis are rare diseases which is found only 34 cases in one million population. Most of these congenital lung disorders are diagnosed as early as childhood and a very small part of them can survive till adulthood. And some of them are diagnoses during the autopsy. They can be associated with associated with congenital anomalies of the skeletal, cardiovascular, gastrointestinal and genitourinary systems and aplasia may be result of frequent respiratory tract infections. Cases of lung aplasia may present at any age with varying clinical presentations which include incidental diagnosis, mild chest pain, dyspnoea, recurrent respiratory infections, and asthma-like symptoms. We report a case of young and healthy woman who admitted to emergency department with dyspnoea and diagnosed ad lung aplasia.
Case report: 18-year old young woman admitted to emergency department with dyspnoea and agitation after emotional stress. On the patient physical examination all systems were normal except a decreased lung sound on left hemithorax. The patient's vital signs were insignificant except blood oxygen saturation was %89. The patient underwent thorax computed tomography (CT). And thorax CT showed there was a unilateral lung aplasia on left side. She admitted to pulmonology service and treated with inhalant medications. On the patients three and six months follow up there were no complication observed
Discussion: Unilateral lung aplasia and agenesis is a rare disorder which is rarer in adult patient group(2). But may seen with different symptoms. Chest pain, respiratory tract infections and dyspnoea are common symptoms of the patients (3). These symptoms are secondary to severity of the lung absence like agenesis, aplasia or hypoplasia(4). Our patient admitted to our emergency department with isolated dyspnoea without an infection or cardiologic abnormality(3). Life expectancy is commonly based on comorbidities like skeletal deformity, cardiovascular effects and age(1). Our patient is a late diagnosis but has no comorbidity. his case is unique in many respects: hyperinflation and herniation of right lung into left hemithorax, along with the left pleural space; normal pulmonary function study; and survival into adulthood.
Conclusion: Lung agenesis and aplasia is both rare conditions, but the emergency department health care personnel should always keep it in mind. Early diagnosis and treatment has an effect on life expectancy.

Keywords: lung, agenesis,dyspnoea

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ABSTRACT NUMBER: 026

POST-TRAUMATIC DIAPHRAGM HERNIA SECONDARY TO DELAYED-DIAGNOSIS OF DIAPHRAGM RUPTURE

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Introduction:Post-traumatic diaphragm hernia mostly occurs after diaphragm rupture occurring after blunt or penetrating abdomino-thoracic injuries. It can result in symptoms days, months and even years after the trauma and this increases morbidity and mortality. We report a case who diagnosed with post-traumatic diaphragm Hernia by clinical findings and radiological imaging methods.
Case: A 54-year old female was admitted to the emergency department (ED) with complaints of 4-5 days of pain and shortness of breath on the left side of the thorax. Her history revealed that she had a traffic accident two years ago and her physical examination showed no pathologies. In respiratory tract auscultation, no wheezing was received at the medial and basal part of the left hemithorax but there were listening findings consistent with bowel sounds in this area. Posteroanterior (PA) lung graphy demonstrated raised left hemidiaphragm with a basal air-fluid level in the left lung (Figure 1). Her thorax computed tomography (CT) showed air-fluid level belonging to the bowel segment in the basal left hemithorax (Figure 2). As a result of the consultation of the case by thoracic surgery, it was considered that diaphragm hernia secondary to post-traumatic diaphragm rupture was present and an emergency thoracotomy was planned
Discussion: Traumatic diaphragm rupture can be missed due to its silent characters and associated injuries, causing delayed diagnosis during first admission. Isolated diaphragm injuries showing no post-traumatic symptoms and radiological findings can initially be missed and show up as diaphragmatic hernia in the delayed period. The most important point in the early diagnosis of diaphragm rupture is that this possibility should keep in mind after blunt or penetrating injuries of the abdominal-thoracic region.
Keywords: diaphragm hernia, diaphragm rupture, trauma, emergency department
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ABSTRACT NUMBER: 027

THE IMPORTANCE OF ULTRASOUND IN THE INITIAL TREATMENT OF THORACIC TRAUMA

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Introduction: Thoracic trauma is threatening vital condition, requires a fast, targeted and reliable diagnostic therapeutic approach to the patient in as short as possible a time period, from the moment of admission to the Intensive Care Unit (ICU). The traditional view that the lungs are unsuitable for ultrasound examination (UZ) due to the presence of air that disturbs the image on the monitor and gives a large number of artifacts has now changed and it is exactly the reverberation effects of UZ waves passing through the structures used to describe the findings and interpret the resulting image then planning the treatment.
Materials and methods: Analysis of professional publications in medical journals and on the Internet.

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Results: In the General Hospital Krusevac, the application of UZ by an anesthetist after the patient's admission to ICU dates back to two years, with great success in diagnosing pneumothorax and thoracic drainage as emergency procedure. Significant importance was observed in: the possibility of monitoring the consolidation of pulmonary parenchyma and pleural effusion, the character of echogenicity and quantity and possibly puncture of the effusion to relieve respiratory mechanics, as well as for the needs of microbiological and cytological diagnostics. The examination of the chest includes the examination of bones elements (ribs and chest bone), pleura (parietal and visceral) and parenchymal of the lungs. During the examination of the six lung fields and are limited to the medioclavicular and axillary lines, the basic verification of the pleural line, the hyper echogenic line is basic. Then we describe the ten basic signs: "lung sliding" - the movement of parenchyma in respiration, A lines of the hyper echogenic horizontal line that flow from the pleural line, "bat sign", "seashore sign", "guad sign", "the tissue-like sign" sign of pulmonary consolidation, "sinusoidal sign" -lung effusion, B lines – hyper echogenic vertical lines from the pleural line, "three sign" and "lung point" - pneumothorax.
Discussion: The importance of UZ in the trauma of the thorax is reflected in the possibility of placement of pneumothorax/ hemothorax, contusion of the lungs and pleural effusions immediately after receiving the patient in ICU and taking the necessary therapeutic procedures in as short a time interval. When comparing existing diagnostic methods for trauma to the chest, in recent times US is a gold standard. In addition to the X-ray and MSCT diagnostics, in addition to the mentioned advantages, the sensitivity and specificity of the method, ranges from 93-98% for pneumothorax/ hemotorax. The X-ray pulse in ICU is an anteroposterior approach, which reduces the resolution of the image's image, thereby limiting its significance in interpreting the findings, often with the inability to adequately cooperate with the patient to stop breathing at exposure. MSCT diagnostics, although it has its advantages, is a major drawback of more significant exposure to radiation, moving the patient to the MSCT cabinet, a long duration of examination that is relevant to hemodynamically unstable patients. Verification of bone fracture (rib, sternum) bone fractures allows the diagnosis of myocardial contusion, which is often considered to be a late violation, and according to the literature data, is one of the most common patterns of complications and the possibility of a fatal outcome.
Keywords: Ultrasound, thoracic trauma, lung contusion, pneumothorax, hematoma retrosternal
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ABSTRACT NUMBER: 028

ATRIOVENTRICULAR BLOCK DUE TO SNAKE BITE-CASE REPORT

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Introduction: Adder bite incidents are mostly seen in rural area. The patients are admitted to emergency department with complaint of local, gastrointestinal, cardiovascular, respiratory symptoms and abnormal laboratory findings as well as fever and loss of consciousness. These symptoms may be present at the time of admission or develop during the monitoring. Adder bite cases are managed and treated according to the classification of adder bites by severity scoring system. The case of Vikasve et al in 2014, was the first case of AV block associated with adder bite. However two more cases with the same clinical presentation had been reported in 1988 and 2012. In the case of Vikasve et al, first degree av block, second degree AV block type 1 and myocarditis were present at the same time. In the other case of by Karaye et al in 2012, the patient was presented with first degree av block. The case which was reported by R.S. Moore in 1988, second degree av block type 2 was present. With our best knowledge, second degree av block due to adder bite reported in our case is the second case in the medical literature.
Case report: A 44-year-old male patient was admitted to the emergency department of the state hospital with complaint of chest pain, dizziness two hours after snake bite. Heart rate was

45/min and Mobitz type 2 AV block was identified in the electrocardiography (ECG) of the patient at the state hospital. One mg IV atropine was given to the patient. Due to no response to the applied treatment the patient was transferred to our go. Physical examination the patient's revealed, general condition: good, conscious, oriented. On the back side of the right hand second finger and dorsal side of bite marks, edema was extending from the 2nd finger to the wrist were identified. Vital signs of the patient, pulse: 56/min systolic/diastolic blood pressure: 90/50 mmHg fever: 36.5 C.
Laboratory test revealed; WBC: 15400 /uL Hgb: 16.4 g/dl Plt: 141000 u/L; creatinine: 1.00mg/dl urea: 42mg/dl high sensitive troponin: <1.5 Crp: 0.159mg/dl Inr:1.20 ptz: 15.4sn fibrinogen: 271000mg/dl. The Arterial blood gas analysis; pH: 7.37 PO2: 58.4 mmHg PCO2: 35.6 mmHg HCO3st: 21.4mmol/L SO2:%98. Fluid replacement and supportive treatment was started to admit to the patient. In the first ECG of the patient was detected mobitz type 2 AV block at image than 0.5 mg IV atropine was given. After 10 minutes, normal sinus rhythm was identified at the control ECG. An cardiologist was ask for consultation. They had no additional recommendation. Ultrasonography on the forearm of the patient revealed and it was subcutaneous edema. The patient was counseled to plastic surgery and hospitalized for follow-up because of the risk of compartment syndrome.
Discusion: Snake bite intoxication which is presented with local and systemic symptoms. Although mortality and morbidity rates differ in the studies, in clinical practice 70 percent of snake bites end up with mild or no effects at all. The critical period in the management of snake bite is between 12 hour and a few days. The mortality rates due to snake bites have been declining by years. The rate of patients who were presented with av block after adder bite was found %3,3 in a research including 30 patients. In another research which was performed in the 108 patients who were presented with adder bite, the most common clinical problem was hemostasis disorders. The clinical effects of snake bites depend on large molecular weight proteins. It is initially taken up by the lymphatic and then enters the systemic circulation. Hypovolemia and local edema are caused by the direct effect of antivenin on the heart and blood vessels, firstly due to increased vascular permeability due to the release of kinins. Local hemorrhage is probably due to catalytic and hemolytic factors. Snake (Adder) bite is treated by clinical presence. Treatment varies from conservative approach to antivenin usage according to the severity of clinical symptoms. When treating the patient, the mortality and morbidity of antivenin treatment should be considered. Because the studies indicating that the number of deaths related to snake bites being more than antivenin treatment should be remembered. Our case is a very rarely seen case due to causing AV Block Mobitz type 2 after snake bite. The patient was sitting in the mild and severe group according to reid index in the clinical process. Antivenin treatment is used prevent mortality and morbidity in the clinical process. Antivenin treatment is used in order to prevent mortality and morbidity in the clinical process. In the meantime conservative treatment is also used to improve clinical symptoms. The patient is monitoring to avoid compartment syndrome. When treating, profit/loss ratio needs to considered.
Keywords: Snake Bite, Atrioventricular Block, Emergency Department
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ABSTRACT NUMBER: 029

EVALUATION OF PATIENTS WITH INTERNAL CAROTID ARTERY DISSECTION IN EMERGENCY SERVICE

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Introduction: The most significant cause of ischemic stroke in all age groups is; carotid artery dissection. It occurs frequently in fifth decade, and also responsible a large percentage of strokes in younger age group. The Eagle syndrome which can be associated with elongation of styloid is

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a rare condition and may occur with ICA dissection. The purpose of this study is to assess clinical presentations, lesion locations on Computed Tomography (CT), CT angiography Magnetic Resonance Imaging (MRI) of patients with internal carotid artery dissection and Eagle syndrome.

Methodology: The authors identified 16 patients admitted to their emergency department with variable neurological symptoms and had a definite diagnosis of internal carotid artery dissection between April 2011 - April 2018 and 5 of these patients diagnosed as Eagle Syndrome. All the patients underwent unenhanced cranial CT, cranial / neck CT angiography and Magnetic Resonance Imaging. There after consulted to neurology.

Results: The authors studied 16 cases retrospectively, consisting of 8 males and 8 females, with a mean age of 44.87 years and minimum and maximum of 28 and 74. 5 cases with Eagle syndrome and 1 of these patients were pregnant. The symptoms at presentation to emergency service in order were; left hemiparesis (43,7%), aphasia/dysphasia (37,5 %), right sided hemiparesis (25 %), headache(25 %), dizziness (12,5 %), nausea/vomiting(6,2 %), difficulty in understanding(6,2 %), neck pain(6,2 %). Among the patients, 8 of them had right internal carotid dissection, 6 of them had left carotid artery dissection and 2 of them had no dissection on CT angiography. At the 14 of these patients on the site of dissection on CT and MRI there were findings compatible with acute infarction. 4 patients had right anterior cerebral artery (ACA) infarct, 2 patients had left ACA, 1 patient had left middle cerebral artery infarct (MCA), 1 patient had right MCA, 1 patient had left internal watershed infarct, 1 patient had right internal watershed infarct, 1 patient had left occipital and frontal infarct, 1 patient had right frontal and corona radiata infarct and 1 patient had right internal capsule infarct. After neurology consultation 13 patients were hospitalized, 3 patients were discharged.

Conclusion: An increasingly recognized cause of ischemic strokes in young adults is internal carotid artery dissection. In many of the patients the complaints are nonspecific. At the presence of patients with unusual neurologic symptoms the clinician must be aware for carotid dissection. The compression of internal or external carotid artery which is named stylo-carotid syndrome is the second form of Eagle syndrome. For all of these patients with clinical suspicion, emergency physician should be aware and ICA or Eagle Syndrome can be screened with CT, CT angiography or MRI.

Keywords: Internal carotid artery dissection, infarct, Eagle syndrome, Computed Tomography Angiography, Magnetic Resonance Imaging

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ABSTRACT NUMBER: 030

HORSE CHESTNUT ALLERGY-CASE REPORT

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Introduction: Homeland horse chestnut known as the Balkan peninsula, there are also several places in Turkey. It is used in cases such as peripheral vascular disease, skin diseases, hemorrhoids, colds. Since it is a poisonous plant, only the use of its seeds is recommended. There is a high level of fruit poison. Food poisoning, an allergic reaction may occur when it is consumed such as cooking by boiling wrongly, eating raw, roasting

Case: A 26-year-old male patient was admitted to the emergency room with complaints of shortness of breath. About 20 minutes before he was interrogated, he had shortness of breath, swelling on his face, widespread itching and burning after eating raw chestnuts. Bilateral conjunctival hemorrhage, uvula edema, urticarial rashes, especially in the corpus, are present on the examination. Vital findings were stable. In the whole blood results, Hb 16,7 g / dl WBC 10,100 mm3, 10,94% monocyte, 46,2% lymphocyte, creatinine 0,83 mg / dl, BUN 16,2 mg / dl, AST 20 U / L, Total bilirubin 0.71 mg / dL. The patient received 2 ampoules of phenamine, 80 mg of methylprednisolone, 100 mg of Ranitidine intravenously, 3 doses of salbutamol, 3 doses of

fluticasone inhaler. The patient was monitored moniterally. In his follow-up, his breathlessness and uvula were gradually tapered. The control examination was natural. Patients were discharged from the allergy-immunology policlinic control proposal.

Conclusion: Angioedema; is localized to the skin or upper airway edema and transient gastrointestinal tract. It is visible in areas such as the face and genital area where it can be seen anywhere on the body, as well as being more resilient. Angioedema is a condition that can be life-threatening emergency. Failure to diagnose may be fatal if treatment is delayed and is seen in the upper airway.

Keywords: Horse Chestnut, allergy, emergency

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ABSTRACT NUMBER: 031

THE ROLE OF ULTRASONOGRAPHIC ADVANCED NEEDLE TECHNOLOGIES IN CENTRAL JUGULAR VENOUS CATHETER APPLICATIONS

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Introduction: Emergency departments are the units in which a large number of critical patients are examined. Instant critical decisions regarding diagnosis and treatment in the patient care process are important for emergency physicians and patients. In this diagnosis and treatment process, ultrasonography is one of the most frequently used imaging methods by physicians. Ultrasonography has been created in the literature with an imaging method by applying interventional procedures to reduce complications and increase success rates. It is thought that the newly developed ultrasonography with an advanced needle technology will reduce the procedure time and complications and increase the success rates. However, studies have done with these methods are very few and have been applied on models. In the study, it is aimed to investigate the superiority of new ultrasonography with advanced needle technology in terms of operation time, complication and success rates compared to standard 2-D ultrasonography.

Methods: Patients were included to the study who applied to the Ege University Hospital Emergency Service between November 2016 - May 2017 with requirement of central venous access. Internal jugular catheter were inserted to 64 patients with the standard 2-D ultrasonography device, 36 patients with Axotrack ultrasonography device, 32 patients with advanced needle technology ultrasonography device with approval of the patients and/or relatives. Case numbers, current diseases, drugs they used, height-weight values, vitals were recorded for every single patients. The practitioner who performed the catheter, evaluated the suitability of the patient's neck for placement of the catheter as difficult or easy. Success and complication status, number of interventions, duration of the procedure were recorded in the case report form and satisfaction of the physician with the process was determined in the catheter application process. The obtained data were compared with appropriate techniques.

Results: Hematomas complications developed in 23.4% (15 people) of the patients with catheter inserted by 2-D usg, 22.2% (8 people) of the patients by Axotrack usg and 9.4% (3 people) of the patients by advanced needle technology usg. Artery puncture was developed in 6.3% (4 people) of 2-D usg-catheterized, 8.3% (3 persons) patients were catheterized with Axotrack usg and 3.1% (1 person) patients treated with advanced needle technology usg. 23.4% (5 people) of physicians using 2-D usg technique rated 5, 21.9% (14 people) 6 and 17.2% (11 people) 4 satisfaction points. 75.0% (27 people) of those using Axotrack usg technique rated 1 while %19.4 (7 people) rating 2 points. 31.3% (10 people) of the physicians rated 7 points, 28.1% (9 people) rated 8 and 18.8% (6 people) rated 6 points using advanced needle technology usg technique. 92.2% (59 people) of the patients using the 2-D usg technique have success. 5.6% of the patients using Axotrack usg technique (2 people) have success. 100% (32 people) of patients using the advanced needle technology usg technique have success.

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Discussion: Central venous catheter applications should be performed in the presence of ultrasonography. It is aimed to decrease the complication and procedure time and increase the success rates with advanced needle technology ultrasonography. In the study, advanced needle technology ultrasonography is obtained better results such as initial entery success, practicioner satisfaction, procedure time and success rate when it is compared to 2-D ultrasonography and the complication rates were similar in all three techniques. There are few studies on the model with advanced needle technology ultrasonography. Real patient studies should be done with these new technologies and the development of techniques should be continued. It is aimed to decrease complications with developed new methods and to increase patient and physician comfort.

Keywords: Emergency ultrasonography, central jugular venous acess

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ABSTRACT NUMBER: 032

CARDIAC ARREST (CA) AND CARDIO PULMONAL RESUSCITATION (CPR) IN TOWN OF VLASOTINCE, SERBIA

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Introduction: CPR is a combination of measures to be taken to restore the heart and respiratory function to a patient who experienced a respiratory failure and heart failure. The main goal is to deliver additional amounts of oxygen to the brain, heart and other vital organs (BLS-basic life support), as long as more cardiac function and spontaneous breathing (ALS-advance life support) are not met with more complicated medical procedures..

Objective: To describe our experience in EMS Vlasotince. The aim is to show the frequency of CPR , age and sex of patients, a type of heart failure, and the success of the CPCR in pre-hospital and hospital conditions.

Methodology: The data obtained from the ambulatory protocol and field of EMS Vlasotince for the period of 1.1.2017 until December 31, 2017 with a reference to the persons with diagnosed cardiac arrest and in which CPR was done.

Results: The cardiac arrest was diagnosed in 40 patients, of whom 30 were in the pre-hospital and 10 in hospital conditions. In relation to the age, 34 patients were over 60 years of age and 6 were aged 41 to 60 years. The youngest were 40 years old. There were 22 males and 18 women. The first rhythm on monitor was: in 32 cases it was asistoly, 7 ventricular fibrillations and 1 electromechanical dissociation. The CPR was performed in 21 cases because in 19 there was no indications s for start the CPR. Of the total number 21 Cardiac arrest in pre-hospital settings, 11 were performed and we had 1 return of spontaneous circulation (ROSC), and in hospital settings of total number of 10 CA we had 3 successful reanimation. The ROSC was 30% in hospital conditions, and in pre-hospital settings it was 9%. The ROSC in total were 14.4%

Conclusion: CA is more frequent in out-of-hospital conditions, patients were over 60 years of age and there is no significant difference in sex. The first rhythm on monitor are dominated by asystolia, while in hospital conditions, fibrillation is dominated by a type of CA. The success of the CPCR is much higher in hospital conditions, but it also depends on the reaction of the EMS team as well as the relevance of providing the CPCR.

Keywords: cardiac arrest, CPR, EMS

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ABSTRACT NUMBER: 033

EXTREMITY SWELLING AND CIRCULATION DISORDERS IN SUBARACHNOID HEMORRHAGE DUE LUMAL TRAUMA: AN EXPERIMENTAL STUDY

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Introduction: Although lower extremity swelling and circulation disorders are common complication of subarachnoid hemorrhage (SAH), exact neuro pathophysiological basis has not been clearly known. Although responsible neuropathological mechanism has been attributed to sympathetic over activity, vasodilatatory potency of dorsal root ganglions has not been investigated. The aim of this study was to elucidate if there is a relationship between lumbar dorsal root ganglion femoral artery network degeneration and femoral artery vasospasm induced by subarachnoid hemorrhage.
Methods: This experimental study was conducted on 21 rabbits. A control group was formed of 5 animals, a SHAM group of 5 to which saline was administered, and a study group of 11 animals which were injected with serum saline in SHAM group and homologous blood into the lumbar subarachnoid spaces in study group. All animals were followed up three weeks and decapitated under general anesthesia. Degenerated neuron densities of lumbar dorsal root ganglions (n/mm3) at L4 levels and femoral arteries vasospasm indexes (VSI; Wall surface/Lumen surface) of all animals were determined histopathologically and results were analyzed with degenerated neuron density values of L4 ganglions by statistically.
Results: Important degenerative changes detected in dorsal root ganglions in severe femoral artery vasospasm detected animals. The mean degenerated neuron density of L4 dorsal root ganglions and VSI values of femoral arteries of control, SHAM and study groups were estimated as 9±3, 1.29±0.12; 39±8, 1.10±0.22, 1133±111 and 2.43±0.67 consecutively. Statistical analysis between the degenerated neuron densities and VSI values were meaningful ($p<0.0005$).
Conclusion: We interestingly noticed that dorsal root ganglion complex degeneration have important roles on femoral artery vasospasm and the development of Buerger's syndrome resembling vascular pathologies following SAH which has not been extensively mentioned in the literature.
Keywords: Subarachnoid hemorrhage, dorsal root ganglion degeneration, femoral artery vasospasm

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ABSTRACT NUMBER: 034 – INVITED LECTURE

LUNG ULTRASONONGRAPHY IN CRITICALLY ILL PATIENTS

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Introduction: Patients with dyspnea routinely undergo physical examination, lung auscultation and chest X-ray. Auscultation and bedside roentgenogram characterize low sensitivity in critically ill patients.
Methodology: Review of the available literature
Data Synthesis: Chest X-ray images remain suboptimal in more than one-third of cases and poorly correlate with chest computer tomography images. Lung ultrasound is invaluable as a bedside diagnostic tool for patients with dyspnea since, in a few minutes, it may help to distinguish typical features of most common causes of dyspnea. Lungs are at the crossroads of ventilation and circulation and their visualization can provide much diagnostic information. In the past, lung ultrasound was considered impossible. However, the interplay between air, fluid and pleurae creates distinctive artefacts. Combinations of these artefacts can help to

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differentiate between various pathological processes, including pulmonary edema, pneumonia, pulmonary embolism, and pneumothorax. Earlier, lungs have been improperly considered to be poorly accessible for ultrasound, since air prevents propagation of the ultrasound beam and produces reverberation artifacts under the lung surface. This article reviews the basics of ultrasound visualization, normal and pathological findings on lung ultrasound, and emphasizes ultrasound utility in providing the emergency physician with a new, fast and reliable diagnostic tool.

Conclusion: This article reviews the basics of ultrasound visualization, normal and pathological findings on lung ultrasound, and emphasizes ultrasound utility in providing the emergency physician with a new, fast and reliable diagnostic tool.

Keywords: Lung ultrasound, Lung consolidation, Pneumonia

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ABSTRACT NUMBER: 035– INVITED LECTURE

UNSUCCESSFUL INTUBATION-IS THIS THE END OF THE WORLD?

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Management and maintenance of the airway and respiration certainly are inevitable steps in the initial treatment of patients who breathe insufficiently or do not breathe at all, regardless of the reason. Tracheal intubation represents a gold standard and a first choice method for airway management and lung ventilation.However, in many cases and due to many reasons, intubation of the trachea may be difficult or impossible. The incidence of difficult intubation is approximately 1-3% in patients with normal anatomy and if the intubation is performed by experienced anaesthesiologists, which do this procedure routinely, on a daily bases.If the intubation is performed by doctors who are not anaesthesiologists, then the incidence of difficult, even unsuccessful intubation increases several times and according to some literature data, it can occur in over 50% of cases. In emergencies, in patientswith extreme obesity, as in those with anatomical head, neck and thoracic anomalies, endocrine and metabolic disorders, and other causes of a difficult airway, the incidence of complicated intubation is over 20% when it comes to anaesthesiologists. Non-anesthesiologists are advised not to try standard orotraheal intubation in high-risk patients, but to try some of the alternative techniques for the airway management and ventilation of the lungs. The incidence of unsuccessful intubation in patients with apparently normal anatomy is about 0.04%, and its frequency is estimated to be 3-10 times higher in obstetrics.The most affordable and the simplest method of ventilation is the application of a standard facial mask which, despite numerous shortcomings, remains a sovereign method of oxygenation, especially in emergencies. If theresuscitation and intubation set contains laryngeal masks (LMA), than the supra-glottic devices (SADs) are an even better method for the management and maintenanceof the airway and breathing.It is recommended that all emergency medical vehicles, all emergency procedures at health facilities and all operation theatres and Intensive Care Units should be equipped with the second-generation SADs. Some of these devices have the option for tracheal intubation, as in second-generation LMA (the intubating LMA), e.g. fast - trach.When it comes to other, non-invasive options for securing the airway and breathing in emergencies, the American Association of Anesthesiologists (ASA), recommends the combitube. This device allows ventilation, even in cases where the tube is placed in the esophagus, since it has two lumens, one of which has the appearance and purpose of the standard endotracheal tube (in caseswhen the tube is placed in the trachea), while the other lumen is obliterated, but it has side openings (it serves in case of placement of the tube into the esophagus - it prevents air insufflation into the stomach, but the

air is insufflated solely through the side openings that allow the air to enter the airways). This type of ventilation is not sufficient to provide adequate oxygenation for a longer period of time, so it should be used to "bridge" the time until establishing an adequate airway and ventilation, especially in traffic and other accidents, when the access to the patient is limited or disabled.
Conclusion: So, we might conclude that the answer to the questions: "Is the failure of tracheal intubation the end of the world?" and "Does this situation necessarily lead to complications and severe consequences?" is: "Of course not!", as long as it is possible to establish and maintain satisfactory oxygenation, in any other way - unsuccessful intubation does not have to pose any problem to the treatment outcome. Damage control surgery – our experience of five years.

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ABSTRACT NUMBER: 036– INVITED LECTURE

THE NONTRAUMATIC HEMATURIA AS AN EMERGENCY CONDITION

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Hematuria is a frequent condition which makes patient visit the emergency urological office. Most of the time it manifests a benign condition but in up to 35% of the cases it can be representation of a malignant tumor, mostly a bladder tumor. If not a real disaster but surely a very ugly fact is the reality that in many cases we witness a delay of the establishment of the diagnosis and the consecutive postponement of the treatment of potentially serious diseases. Mostly the patients are to be blamed for that delay of the diagnosis but regrettably there are enough cases where the physicians attribute wrongly the presence of the blood in the urine to some concomitant diseases like inflammation, stones or to preexisting radiotherapy as causative factor without making the necessary examinations for the diagnosis. Among papers dealing with that symptom there are a lot of controversies and discrepancies which encouraged us to make more precise recommendations and create algorithms for the diagnosis, treatment and follow-up of patients with hematuria. We make our conclusions on the basis of a lot of patients who are hospitalized in our department (in average -100 per year) or are managed on an outpatient basis (in average – 300 per year) in the emergency office. The first task of the doctor on duty in the emergency department is to decide how serious the blood lost is and to make a strategy for the treatment – either immediate hospitalization or conservative treatment and follow-up on outpatient basis. One has to take into consideration the heaviness of the hematuria, the HB and Hct levels, the hemodynamic values and the preexisting comorbidities, trying to base the conclusions on as more objective criteria as possible. We present the structure of the hematuria secondary to different diseases, its age and gender prevalence and tackle the issue of the sensitivity and the specificity of the different diagnostic tools – ultrasonography, cystoscopy, Ct, MRI, URS etc. We share our experience with the best treatment options – conservative as well as minimally invasive or operative and discuss their effectiveness for the definitive hemostasis. Statistically significant benefit is proven for the use of etamsilat and from the irrigation solutions for the potassium aluminum sulfate. As alternative methods are shown the hemostatic radiotherapy, formalin and sodium hyaluronat local instillations and the arterial selective embolization. Several reasons for false positive results of hematuria are listed.
Conclusion:The conclusion is that the hematuria is multifactorial and the precise diagnosis is crucial for the proper treatment. The urologists are familiar with the many reasons causing that symptom and try to treat and control that emergency condition fast and effective in order to avoid transformation of the disease into a disaster.

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ABSTRACT NUMBER: 037 – ORAL PRESENTATION

THE SIGNIFICANCE OF PLATELET CRIT IN VESTIBULAR NEURITIS

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Introduction: The purpose of this study was to evaluate the usefulness of the platelet crit (PCT) in a differential diagnosis and follow-up of patients with vertigo.
Methods: Between January 2016 and December 2017, patients with diagnosed vestibular neuritis in our emergency department and a control group consisting of healthy subjects taking laboratory tests as part of routine health control are included in the study. Patients were subjected to hemogram counting to compare PCT in vestibular neuritis group and control group. Relations between laboratory test results and clinical knowledge values were studied.38 patients with vestibular neuritis (VN) and 24 patients diagnosed with control group were included in the study. Serum samples were analyzed at the initial presentation.
Results: 52.2% of the cases in the control group were women and 47.8% were male. There were 26 women (68.4%) and 12 men (31.6%) in the VN group. The gender distribution difference between the groups was not statistically significant (p> 0.05). The mean age of the control group (31.25 ± 11.46) was lower than that of the VN group (44.71 ± 19.38), but this difference was not statistically significant (p> 0.05). The PCT values of the VN group were higher than the control group and there were statistically difference between the groups (p< 0.05) . The ROC analysis results for examining the VN diagnostic value of the PCT value were as follows The area under the graph was found to be 0,696. The vertigo diagnostic power of PCT was reported as %69,6 ROC analysis results were statistically significant (p< 0.05) . At the point where the PTC value was 0.1565, the sensitivity was found to be 92.1% and the specificity was 47.8%. At the point where the PTC value was 0.224%, the sensitivity was found to be 23.7% and the specificity was 87%
Conclusion: There are no studies evaluating the importance of vestibular neuritic PCT in literature. PCT values were found to be higher in our study than in the control group. This can be explained by the fact that our patient count is less. PCT should be considered as simple and reliable parameters to estimate the cause and severity of the disease. Further clinical studies are needed in this regard.
Keywords: platelet crit, vestibular neuritis, vertigo

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ABSTRACT NUMBER: 038

MANDIBULAR FRACTURE IN PROFESSIONAL FOOTBALLER: A CASE REPORT

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Introduction: Football is one of the most frequent sports clubs in the world, and its population has increased considerably in recent years. Along with the increased participation, football-related injuries have also become remarkable. Approximately 22% of injuries occur in the head and face area. Approximately 27% of fractures occurring during head injuries occur in the mandible. According to localizations of mandibular fractures, they are called condiers, coronoids, ramus, corners, parasimphys, symphysis and alveolar. In this case, mandibular fracture occurred as a result of facial trauma during sportive activity. The fracture was in the

condylar area, which was thinner. In this case, information about diagnosis, treatment and rehabilitation is given.

Case: At the age of nineteen, the male player who has been playing professional soccer for 1 years has applied to the emergency services. The athlete was playing intensively at the defencive-midfilder position. It was understood that he had an elbow strike on his left jaw in the match played five days ago. The athlete continued the game after a brief treatment after the coup and he had a similar blow again to the same area after 2 days at the training After the training, the footballer had slight bumps and pain just below the left jaw mandibular joint. The case was evaluated as soft tissue trauma and cold application and compression were performed and oral NSAID drug (50mg diclofenac sodium 2x1) was started. Footballer complained of not complaining, he applied to emergency servises.

On the patient's examination, there was mild swelling in the lower part of the mandibular joint about 1 cm, pain in the joints and palpation. The pain increased when we tried to open the patient's jaw. He had no asymmetry but he had an occlusion. A direct radiograph was taken in order to diagnose the patient, it was found fractured on the mandibula. We consultated the patient to Plastic surgery. CT showed a fracture line in the mandible. The fracture was in the condylar area of the lower mandible. The patient had a thermoplast chin resting on the mandible and was recommended to use it for fifteen days. During this period the athlete fed with liquid food and the jaw movement was minimized. After two weeks of checking, the patient reported that his complaints were diminishing. A special training program was planned to shorten the football's return period. For this purpose, bicycle and lower extremity force exercises were given at the end of the first week and field exercises were given the following week. These exercises were aerobic and anaerobic endurance, coordination, strength and quickness studies. It was understood that the patient did not have any complaints at the controls performed at the fourth week. However, the athlete was kept away from training for two more weeks. At the end of the sixth week he was allowed to participate in team work.

Discussion: Two methods are used in mandibular fracture treatment . 93.5% of maxillofacial injuries to sports require surgery. In the surgical approach, plaque is placed on the fractured area and the athlete is allowed to work with the team as soon as possible. After surgery, the patient remains in the hospital for an average of three days and is kept away from sports activities for 40 days. The athlete must protect himself / herself from direct trauma for three months. If bone is not depleted, a conservative approach can be applied. The mandible is fixed to a beard and the patient is rested for 2-4 weeks. At the end of this period, the inspection is checked together with the repetition.

Between head traumas in football players, mandibular fractures are more common than in other sports branches . Elbow or foot impact and head-to-head collisions in football can result in a fan going from simple soft-tissue trauma to brain contusion. Coaches and sports physicians should be informed of their facial and chin injury characteristics . In trauma to the jaw, the athlete must be examined in detail and early and accurate diagnosis should be made to prolong the wear-out period.

Keywords: Sports injuries, mandibular fractures, head trauma, football, exercise

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ABSTRACT NUMBER: 039

EIKENELLA CORRODENS INFECTION RELATED GASEOUS GANGRENE AND FINGER AMPUTATION AFTER THE HUMAN BITE

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Introduction: Animal and human bite-related injuries are puncture injuries, laceration, crushing, rupture, tissue or limb loss.Human-borne bites are usually seen in young males, especially in the fingers, arms, head and neck regions. The risk of developing infections in human

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bite injuries is variable, depending on the pathogen in the mouth flora of the person who bites. Most of the wound infections that develop are polymicrobial. Viridans streptococci, S. aureus, H. influenza, H. parainfluenza, Eikenella corrodens, Klebsiella, Aggregatibacter, Enterobacter are the most common pathogens

Case: A 25-year-old woman with a history of substance abuse was admitted to the emergency room with complaints of bruising, malformation, malodorous wound drainage, and uncomfortable pain in fifth finger of the right hand, which occured after the human bite. The patient first had applied to the emergency department of another hospital because of the human bite of right hand fifth finger and had discharged after X-ray, rabies and tetanus vaccination, analgesia application. Three days after the bite, cefazolin and metronidazole antibiotherapy started to the patient, who complained with bruising and wound drainage, who was admitted to another hospital and discharged.The patient was admitted to Balcalı Hospital Emergency Department of Cukurova University with malodorous discharge, bruising, deformity in the distal phalanx of the fifth finger of the right hand 7 days after human bite. The vital findings were stable at the time of admission. On physical examination, there was bruising, tooth tracks, deformation, and wound drainage on the distal phalanx of right hand fifth finger but not warming. The patient was performing extension, flexion, abduction, adduction movements with her finger and there was no sensory and motor deficit. There was gas shadows at the level of the distal phalanx of fifth finger on X-ray of hand. During the follow-up of the patient at emergency department, the wound was washed with 0.9% saline and dressed with povidon iodine. Tetanus Immunoglobulin, Seftriaxone 1gr, Tramadol 100mg were administered to the patient who had tetanus vaccination. The patient was held consultation to the orthopedics and infection departments. It was suggested by the infection department to start ampicillin-sulbactam 4x1.5 gr and then the patient was taken to surgery by the orthopedic department. The fifth finger was amputated from the distal interphalangeal joint level. Postoperatively, she was hospitalized to the orthopedic service. In wound culture; Eikenella Corrodens was diagnosed and the patient was held consultation to infectious diseases again. Continuation of ampicillin-sulbactam treatment was recommended. After 10 days intravenous antibiotic therapy was completed, the patient was discharged after 15 days by calling the policlinics of orthopedics and infectious diseases for control.

Conclusion: Human bites are source of serious infections and complications that can cause function, limb loss and death. It can cause both physical and psychological effects on patients in long term. In order to prevent physical losses and deaths on patients, treatment should be started early and patients should be informed about treatment compliance.

Keywords: Eikenella Corrodens, Infection, Gaseous Gangrene, Amputation, Human Bite

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ABSTRACT NUMBER: 040– INVITED LECTURE

HEART AND LUNG ULTRASOUND PROTOCOL IN ACUTE HEART FAILURE

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The emergency department (ED) plays a critical role in the initial diagnosis and management of acute heart failure (AHF), as nearly 80 % of all AHF admissions originate from the ED. Differentiating AHF from other causes of dyspnea can be challenging, especially in patients with multiple co-morbid conditions such as chronic heart failure and chronic obstructive pulmonary disease. The successful management of patients with acute heart failure involves early diagnosis, the identification of underlying reversible causes and the implementation of effective therapies in a timely manner. Focused echocardiography and lung ultrasound are readily available and widely validated techniques that can be used in order to improve diagnostic accuracy and monitor responses to interventions in patients with AHF. Lung ultrasound allows for a rapid point-of-care evaluation of pulmonary congestion. The visualization of three or more B-lines in

two or more intercostal spacesbilaterally is highly sensitive for the diagnosis of AHF, has better diagnostic accuracy than chest X-ray and is well-correlated with natriuretic peptide levels. Also, lung ultrasonography allows for rapid assessment of other findings suggestive of AHF (such as pleural effusion) and findings of alternative or concurrent conditions (such as pulmonary consolidation or pneumothorax). Focused cardiac ultrasound helps to add further information about the presence and the acute causes of AHF which may require immediate action. In the setting of AHF, echocardiography can be used to assess pericardial effusion, right ventricular dilatation, left ventricular systolic function, gross valvular abnormality, and potentially the presence of intracardiac masses. Echocardiography can also be used to monitor treatment in patients with cardiogenic shock. Ultrasound-trained emergency physicians can accurately determine left ventricular ejection fraction using both visual estimation and mitral E-point septal separation (EPSS). As nearly 50 % of patients with heart failure have a preserved ejection fraction, bedside echocardiography may be more valuable to 'rule-out' other diagnoses rather than 'ruling-in' AHF. Sonographic assessment of inferior vena cava (IVC) size and collapsibility is the most
frequently used non-invasive technique for indirect estimation of central venous pressure and volume status.

Conclusion: There is growing evidence that multi-organ integrated clinicalultrasound approach should be advocated as part of the clinical-diagnostic workup at AHF very early phase. Bedside ultrasound along with clinical and biochemical assessment may help in the AHF diagnosis and management. Immediate performance of combined lung and cardiac ultrasound at the initial presentation has the potential to be beneficial in AHF, allowing a better understanding of the actual
pathophysiological determinants, identifying a specific phenotype of the heartfailure and guiding tailored treatment.

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ABSTRACT NUMBER: 041

ASSESSMENT OF BRAIN TOMOGRAPHY EFFICACY IN PATIENTS WITH HEADACHE WHO HAVE NORMAL NEUROLOGICAL EXAMINATION

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Introduction: Complaint of patients presenting to emergency service is often headache that sometimes accompanies with serious or fatal conditions. So some patients with headache should be examined with computed tomography, lumbar puncture but they have side effects and risks. Therefore, It is still being discussed whether which patients with headache and not having abnormal physical examination should be neuroimaged. The aim of our study was to identify risky and important clinical findings that require neuroimaging in such patients.

Methods: Emergency department patients who had no neurological deficit and who underwent CT scan between 2014 and 2016 due to headache were identified. Their data obtained by using files and patient records system and been made their information retrospectively The results of tomography were classified by the triple severity grouping system (Group 1: Normal, Group 2: Immediate clinically significant tomographic findings, Group 3: Unusual but no urgent clinical significance). The age, sex, pain sort and associated symptoms of patients were recorded. Finally the achieved data were analyzed.

Results: 1388 cases were included in the study. The mean age of cases was 44.02 ± 18.58; 56.6% of cases were female. Group 1 was 50.4% (n=699), Group 2 was 2.3% (n=32) and Group 3 was 47.3% (n=657) of cases. The most common diagnosis was subarachnoid hemorrhage rating 34.4% (n=11) in group 2 and sinusitis rating 47.3% (n=311) in group 3. In group 2 where the male sex was predominant, the mean age was higher than group 1 (p = 0.014). The rate of pain

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expressed as different characters was higher in group 2 (56.4%) than the other groups (p <0.05). When the associated symptoms were evaluated, vomiting was significantly higher in group 2 than bouth group 1 (p = 0.023) and group 3 (p = 0.008).

Conclusion: It has been concluded that the emergency department physician should be more careful about cases of 50 years of age, male gender, and different pain sort, associated by vomiting, and should be decided in favor of neuroimaging.

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ABSTRACT NUMBER: 042

ISCHEMIC PRIAPISM AS UROLOGICAL EMERGENCY, TREATMENT APPROACHES

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Introduction: Priapism is a rare disorder of erectile regulation mechanisms, leading to prolong and persistent erection, which is not associated with sexual stimulation. Ischemic ”low flow” priapism, is characterized by a minimal to absent arterial inflow, leading to pain and rigidity. The treatment should be prompt and emergent, where the risk of loss of erectile function is significant.

Methods: We followed up13 men with ischemic priapism for a period of 4 years, mean age 46 years (27 to 64 years). In all cases detailed history was obtained, the time from the onset to the intervention was reported and acid-base balance with pH of the cavernous blood was measured. In all patient the first step was puncture of the cavernous bodies with blood evacuation, followed by injection of sympathomimetic - ephedrine (diluted 20mg in 10ml NaCl 0,9%). In case of failure (absence of effect after 3 consecutive punctures), corporoglandular shunt (Winter operation) was performed in 5 patients and saphenocavernous shunt - in 1 patient. Preservation of erectile function at the 3th month after discharge was accepted as a success.

Results: Patients were presented averagely at the 27th hours after the onset of the priapism (from 6th to the 102nd hour). The cavernous blood pH was averagely 7,03 (6,57 to 7,23). A strong correlation was found between the time from the onset to the intervention and the pH value (r=0,862; p=0,001). Patients with a successful outcome were operated averagely at the 7th hour after the onset, while those with an unsuccessful outcome (lost erectile function) – averagely at the 33th hour – there is a statistically significant difference (p=0,004). In 85% of the patients, who presented in the emergency until the 10th hour, the priapism was successfully treated and the erectile function was preserved at the 3th month, through 1 to 3 punctures of the cavernous bodies and ephedrine injection. The success rate of this method in priapism with duration 18 to 48 hours is 28%, where in cases with duration more than 48hours there was no successful case reported. In case of failure of this method, in 5 patients the Winter operation was performed, where in 4 permanent control of priapism was achieved. However only 15% preserved their erectile function.

One patient underwent saphenocavernous shunt – priapism was treated, but erectile function was permanently lost.The intracavernous injection of ephedrine resulted in tachycardia (more than 150 b/m) in two patients, which was controlled by i.v. application of beta-blocker.

Conclusion: Ischemic priapism requires emergent intervention, where minimally invasive option is the puncture of the cavernous bodies and injection of ephedrine. The method is highly successful in ischemic priapism with duration up to 10 hours, after that the success rate drops dramatically. Tachycardia is a possible side effect, that’s why blood pressure- and ECG-monitoring during the procedure are recommended. In cases of failure of this method and in priapism with duration more than 48 hours, the Winter operation and the saphenocavernous shunt show good results in treating priapism, but are associated with a significant risk of erectile function loss.

Keywords: priapism, sympathomimetics, erectile function

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ABSTRACT NUMBER: 043

THE PREDICTIVE VALUE OF ISCHEMIA MODIFIED ALBUMIN AS A REPERFUSION CRITERIA AFTER THROMBOLYTIC THERAPY IN ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION

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Introduction: In acute ST segment elevation myocardial infarction (STEMI), thrombolytic therapy is an effective therapy for the patency of the infarct-related artery (IRA), thus protecting the heart muscle. In this study, the role of ischemia-modified albumin (IMA), a new and early marker was investigated as an indicator of reperfusion after thrombolytic therapy.
Methods: The IMA, creatine kinase-MB (CKMB) mass and cardiac Troponin I (cTnI) levels were measured from blood of patients with an acute STEMI, who underwent thrombolytic therapy, at the before therapy (0. hours) and after 6, 12 and 24 hours. Relationship between these three diagnostic variables used for the diagnosis of reperfusion (troponin, CKMB mass levels and IMA levels) were investigated.
Results: IMA values taken from patients at the time of admission were significantly higher than in the control group. Moreover, IMA reached a peak value at a similar time as troponin and CKMB mass values.
Conclusion: Similar to troponin and CKMB mass values, both of which increase after reperfusion, IMA also can be used as a biochemical indication for reperfusion.
Keywords: Ischemia-modified albumin, ST segment elevation myocardial infarction, reperfusion
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ABSTRACT NUMBER: 044

THE ROLE OF FIRE AND RESCUE UNITS AND EMERGENCY MEDICAL CARE IN RESPONDING TO TECHNOLOGICAL ACCIDENTS – CASE REPORT

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Introduction: In the modern society, people are surrounded by many industrial plants where technical and technological accidents can occur due to severe malfunctions, fires, or explosions. Technological accidents can cause great material damage, as well as injuries and death of employees, inhabitants of the surrounding areas, and persons that participate in the process of helping and saving the injured
Goal: of this paper is to illustrate that providing care to a large number of those injured in a technological accident represents a complex task which demands the engagement of various institutions, cooperation between different departments, and the organization of units at the local, regional, and government levels.
Case report: In the Technical Overhauling Institution of Kragujevac, on February 28, 2017, around 1:30 PM, the A28 warehouse, housing a large amount of mines and explosive devices, exploded. Members of Serbian Armed Forces, Fire and Rescue Brigade, and Emergency Medical Care Service were called upon to act. The mentioned services acted in accordance with the plan for providing care in mass incidents, and applied the knowledge received in previous years, during similarly themed demonstration exercises. Communication was implemented via radio link, and each acted by following the plan of its scope of work. 40 military firefighters and soldiers were engaged in the process of putting out the fire that broke out after the explosion,

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alongside 19 members of the Fire and Rescue Brigade from the Sector for Emergency Situations of the Ministry of Internal Affairs of the Republic of Serbia, and their seven fire trucks. The injuries of the members that intervened after the fire from the first explosion rose were sustained when the roof of the building in which they were extinguishing the flame collapsed, causing the death of 4 people, and injuries to 25 members of Serbian Armed Forces and Ministry of Internal Affairs. Medical workers from the Emergency Service were engaged during the process of providing health care to the injured in the Technical Overhauling Institution, consisting of five teams and vehicles, with the largest number of injured evacuated to the Clinical Center in Kragujevac. The Emergency Service provided care to the total of 13 injured, while additional people injured in the accident were transported by military patient transport ambulance. 25 people were hospitalized. 4 members of the Fire and Rescue Brigade in Kragujevac sustained grave injuries, while other members of this brigade suffered light injuries. The most common type of injuries were burns, ruptured eardrums, injuries of the spine, injuries caused by shrapnel, as well as post-traumatic stress caused by the events.

Conclusion: Elements important for providing successful care during technological accidents are good primary-level organization and connection among all the services involved, timely establishment of cooperation at the local, regional, and government levels. The key to success lies in connecting all the services in the field, teamwork, training, possession of adequate equipment, and the existence of a plan for providing medical care to the wounded

Keywords: technological accident, injuries, proving care.

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ABSTRACT NUMBER: 045

THE ROLE, THE TASKS AND SIGNIFICANCE OF MEDICAL TEAMS IN CUSTOM AND SPECIAL POLICE UNITS

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Introduction: In the last 20 years, terrorist acts, such as kidnappings, bank robberies with hostage taking, riots, as well as the presence of emotionally disturbed armed individuals and other acts of violence, have become an everyday occurrence all around the world. When these incident happen, a swift action on the part of security forces is necessary, with active participation and backup from medical professionals.

Goal: of this paper is to explain the role, the tasks, and the significance of tactical medical teams as key components of custom and special police units, and to emphasize the advantages of emergency medical care in complex safety-related situations.

Methods: Retrospective analysis of the literature with the following guidelines: "Tactical combat emergency care", "Emergency health services", "Terrorism", "Tactical Emergency Medical Support" (TEMS).The search was conducted using: PubMed, Medline, and electronic magazines available on KoBSON. Taken into account are all the works published in full scope in the English language from 1997 to 2017.

Data Synthesis: The beginning of the development of tactical emergency medical care is related to military units. The formation of special units was supported by the development and utilization of specially trained medical workers with an expanded scope of duties and tasks. In time, special police units started to increase the participation of medical staff in their organizational structure, as it was recognized that emergency medical support can greatly contribute to the increase in mission effectiveness, especially in the area of tactical operation support. Significant historical events that relate to this area have led to an increase in interest for the presence of specially trained medical teams within units. The traditional approach, where units relied on the nearest available pre-hospital medical care service, was slowly abandoned, with more and more units across the world recognizing the need to have specially trained

medical staff as part of their structure. Medical staff that provides this type of support is carefully chosen, specially trained, well prepared, with unique skills that, and can provide the best possible medical care in extreme and potentially dangerous conditions.

Conclusion: The growing threat that safety forces face can be, in part, balanced out by making the tactical emergency medical support more prominent. Before, during, and after the mission, integrated members of tactical emergency medical support participate in swift care giving to the injured and in the efficient and safe evacuation of victims, giving priority to life-saving measures. Unique knowledge, equipment and skillset required from tactical medical staff are dictated by the dangers and risks of a clearly defined red danger zone.

Keywords: Tactical combat emergency care, Emergency health services, Terrorism, Tactical Emergency Medical Support

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ABSTRACT NUMBER: 046 – AWARDED PRESENTATION

PREDICTIVE VALUE OF C-REACTIVE PROTEIN/ALBUMIN RATIO IN PATIENTS WITH TRAUMATIC BRAIN INJURY

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Introduction: The C-reactive protein (CRP) and albumin are generally used as serum inflammatory markers to predict mortality in critically ill patients. The CRP/albumin ratio is a new inflammation-based prognostic score, which has been proposed as a reliable predictor of the clinical outcome and the severity of organ dysfunction in various diseases (e.g., acute pancreatitis, non small cell lung cancer, crohn's disease). However, there is no study available in the literature which investigates the relationship of this marker in the clinical course and severity of patients with head trauma. Thus, the aim of this study was to evaluate the predictive significance of the CRP/albumin ratio for the presence or absence of intracranial injury and the severity of injury in head trauma patients, hypothesising that the CRP/albumin index would be of prognostic value for such patients

Methods: The present investigation was a single-center, observational, retrospective cohort study. Among consecutive adult patients with head trauma who admitted to the emergency department (ED) between January 2017 and December 2017, only 175 patients for whom serum albumin and CRP values were available were included. Glasgow Coma Scale (GCS), Revised Trauma Score (RTS), the mechanisms of head trauma CRP/albumin ratios and computerized cranial tomography (CCT) findings of the patients were recorded at the time of admission. Patients were divided into 2 groups as follows: those without (group 1) and with (group 2) pathological findings related to head trauma (e.g., skull fracture, brain swelling, cerebral contusion, intracerebral hematoma, pnömosefalus) shown on CCT. Patients were also divided into two subgroups based on the presence or absence of traumatic parenchymal lesions (e.g., brain swelling, cerebral contusion, intracerebral hematoma, pnömosefalus) defined as traumatic brain injury (TBI). Quantitative data are presented as mean ± standard deviation (SD) or median (interquartile range, IQR). Categorical variables were presented as numbers and percentages. When comparing numerical data (intragroup comparisons) that were not normally distributed, identified with the Kolmogorov–Smirnov Z test, the Mann–Whitney U test was used if there were 2 groups. Spearman's rank correlation coefficient (rho) was used to evaluate correlations between and CRP/albümin values and nonparametric data that were not normally distributed (GCS and RTS scores).

Results: Of the 175 patients included, 145 (82.9%) were males and 30 (17.1%) were females. The mean ± standard deviation (SD) age of the patients was 46.29 ± 19.63 years (range: 18–

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87years). The mechanisms of sustained head trauma were falling from a height (58.9%; n=103), assaults (15.4%; n=27), motor vehicle-pedestrian accidents (12%; n=21), motor vehicle accidents (9.7%; n=17) and motorcycle accidents (4% ; n=7). GCS measurements of patients ranged from 3 to 15, with a mean ± SD of 13.30 ± 3.60 and RTS measurements ranged from 3.1 to 7.8 with a mean ± SD of of 7.40 ± 1.07. CRP / albümin ratios ranged from 0.02 to 41.5 with a mean ± SD of 2.39 ± 5.37. Both the GCS and RTS scores which comprised head injury severity were not significantly correlated with CRP/albümin ratios (rho = -0.097; p=0.201, and rho = -0.020; p=0.797, respectively). CCT images revealed that 124 (70.8%) patients had pathological findings (CCT+), of which skull fracture was the most common cause in 50 patients. Compared to head trauma patients without pathological lesions shown on CCT (group 2), the mean serum CRP/albumin ratios were significantly elevated in patients with CCT+ (group1) (2.92 ± 6.20 vs 1.10 ± 1.86; p=0,039). Of the 175 patients studied, 104 (59.4%) exhibited trauma-relevant parenchymal lesions on the CCT scan. Compared to head trauma patients without TBI, the mean serum CRP/albumin ratios were markedly elevated in patients with TBI (3.40±6.67 vs 0.89±1.61; p=0,001). The mean serum CRP/albumin ratios plasma TAS levels were higher in hospitalized patients than in discharged patients (3.16 ± 6.45 and 1.00 ± 1.73, respectively; p=0.006).

Conclusion: In patients with head trauma, accurate prognostic biological markers are important tool to guide clinicians when making decision and managing the process. The present study is the first in vivo clinical trial to investigate the predictive role of serum CRP/albumin ratio in patients with TBI and to correlate injury severity following head trauma with the initial CRP to albumin ratio values. The present data suggest that serum CRP/albumin ratios increase in patients with TBI and distinguish between those with and those without pathological lesions demonstrable on CCT. Furthermore, the present study demonstrated that serum CRP/albumin ratios lymphocyte DNA damage levels did not correlate with injury severity following head trauma as assessed by GCS and RTS scores. Consequently, the CRP/albumin ratio, as an promising systemic inflammation-based marker might be useful to predict trauma-relevant parenchymal lesions in patients with TBI.

Keywords: Head trauma, C-reactive protein to albumin ratio, computerized cranial tomography, traumatic brain injury,

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ABSTRACT NUMBER: 047– INVITED LECTURE

THE MANGLED HAND AND FOREARM – ALGORITHM FOR TREATMENT.

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Intruductution: Mangling injuries of the upper extremity usually involve all important structures of the hand and forearm. This injury provokes significant disability of hand function and a lasting psychological impact on the patient. The operating surgeon must have complete knowledge and skill regarding the anatomy and biomechanics of the hand and forearm function, as well as a good knowledge of the principles of emergency medicine. It is on the basis of this knowledge that a realistic plan is developed to first save the limb and then to salvage all structures that will eventually create a functional limb. Without using such a structured approach to the treatment of these emergent injuries, the surgeon can easily get lost in the chaos of mangled tissue. The purpose of this presentation is to create and apply an algorithm for diagnosis and treatment of the mangled hand, and to report results.

Methods: Eighteen patients with 19 mangled hands and forearms were operated and followed for an average period of 8 years. Eleven of cases involved injuries within the hand only, 5-forearms and three has combined wrist and forearm injuries. The mean age of the patients was 39. 8 years. (28-54 years). Demographic information including; age, sex, etiology and mechanism of injury, diagnostic and surgical procedures was recorded. The hand cases were classified and

evaluated using Del Pinal's classification from 2004. This diagnostic algorithm contains three main points; evaluation of the viability of injured systems, measurement of tissue pressure, and assessment of bacterial colonization. The therapeutic strategy contains two stages: Emergency and Reconstruction. The main therapeutic principles are: saving the life, saving the limb and saving or reconstructing the most important functions of the hand. The treatment is characterized by multiple operations until an acceptable level of hand function is achieved.
Results: Eight of 11 operated hands (67%) restored acceptable function. Acceptable function, according to Del Pinal's definition is a hand with an opposition-capable thumb and two or three movable digits. Five cases were originally classified as "crippled hand" and after reconstruction were evaluated as "acceptable". Three of the injured hands were originally classified as "mutilated hand". After treatment they were defined as "acceptable". In three cases (33%) there was no change in the functional level. All remaining patients with mangled forearms and wrists were restored morphologically and functionally. All of them had acceptable or normal hand function. Complications 16 of the 19 (79%) did not achieve full range of motion in the hand. 12 patients. 11 patients (65%) had nerve repair, eight did not recover full sensation, and 3 cases had incomplete motor recovery. Two of sixth replanted fingers necrotized were removed.
Duscission: Management of the mangled hand and forearm requires a completely different treatment approach than that of simple hand injuries. The pathologic constellation includes all functional systems of the upper extremity; vessels, nerves, tendons, bones and skin. Usually the energy which provokes such a trauma is huge and often other body systems are injured. In order to achieve the best possible results, the lead surgeon must follow the basic principles of: preserving the life, preserving the limb, preserving the possible function. He must be capable of evaluating, synthesizing, and prioritizing treatment options. The proposed algorithm for diagnosis and treatment of the mangled hand gives a systematic approach in how to create a realistic plan for restoring the integrity and function after these devastating injuries.
Keywords: mangled hand, forearm, reconstruction
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ABSTRACT NUMBER: 048

APPROACH TO ADULT PATIENTS WITH PAIN ADMITTED TO THE EMERGENCY DEPARTMENT

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Introduction: Pain is the most common complaint among all emergency department admissions. In a French study, the percentage of patients presenting to emergency department with pain was higher than 80%. According to the definition made by the International Association for the Study of Pain-IASP, pain is an unpleasant sensory and emotional experience that results from a true or potential tissue injury originating from anybody site. According to American National İnstitute of Health (NIH), the self-expression of a patient is the most reliable marker of the presence and intensity of pain.
Acute pain is a pain type with a certain time of onset that is produced by the stimulation of nociceptors directly or through tissue injury by painful stimuli (surgery, traumatic, acute disease etc.). Acute pain activates sympathetic system and results in an increase in blood pressure, heart rate, and respiratory rate, as well as urinary retention, enlarged pupils, and contractions in local muscles. Acute pain is not a disorder or syndrome, but a symptom that brings a patient to physician's attention and is getting accepted as the fifth vital sign.
Methods: Inadequate management of acute pain may result in thromboembolic or pulmonary complications, prolonged intensive care unit or regular ward stay, hospital readmission for pain

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following discharge, reduced quality of life, and development of chronic pain. Particularly among patients with trauma, which is the most common cause of acute pain, the latter causes sympathetic system activation with resultant increases in heart rate, blood pressure, respiratory rate, blood glucose level, and urinary retention. These events lead to worsening clinical status of trauma patients. Similarly, acute pain reduces chest wall and diaphragm motion and may cause atelectasis. Pain also cause tachycardia, increased myocardial oxygen use, hypercoagulability, and increased catabolism among critical patients.Analgesia is to reduce perceived pain. There is no altered consciousness of any level. However, consciousness may be altered by secondary effects of the drugs used for analgesia.

Results: The following steps should be completed before, during, or after analgesia administration;

1. Patient evaluation (history of allergy, medications used, previous disorders, airway (short neck, small mandible, large tongue, trismus) 2. Preprocedural preparations 3. Monitorization (visual and verbal monitoring of consciousness, blood pressure, pulse rate, SpO2, respiratory rate). Conditions requiring analgesia in emergency department • Acute painful conditions– Renal colic, headache, trauma, acute inflammatory events• Orthopedic interventions– Fracture, dislocation reduction

• Some wound care procedures– Burn, Abscess drainage, foreign body removal• Endotracheal intubation• Thoracic tube insertion, central catheter insertion• Thoracentesis, cardioversion, pericardiocentesis Analgesic drugs used for acute pain management are divided into three groups:

1. Opioid (Narcotic) analgesics: drugs in this group have potent central and peripheral effects. Despite having strong analgesic effects, they lack anti-inflammatory and antipyretic action. They are used alone or in combination with other analgesics for moderate-to-severe pain.■ Morphine■ Meperidine■ Fentanyl■ Tramadol2. Non-opioid analgesics■ Acetaminophen (Paracetamol): these are the widely used non-opioid drugs with proven efficacy that have analgesic and antipyretic effects. Lacking anti-inflammatory effects, these analgesics are used for mild to moderate pain.■ Nonsteroidal anti-inflammatory drugs (NSAID) 3. Ketamine

Conclusion: Acute pain is a condition that should be addressed after ABC as the fifth vital sign. An effectively provided analgesia is the single intervention that affects patient satisfaction in the emergency department. In severe pain, opioids can be directly administered as a potent agent; in other cases, PO-IM NSAID or IV-PO paracetamol may be administered. In order to reduce analgesia-associated complications in the emergency department, appropriate drugs should be titrated and used in appropriate doses. Patients should be repeatedly evaluated before, during, and after intervention. Altered consciousness, advanced age, and sociocultural status should not preclude analgesia administration.

Keywords: Pain management, emergency department, opioid analgesics non-opioid analgesics, nonsteroidal anti-inflammatory drugs, ketamine

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ABSTRACT NUMBER: 049

SPONTANEOUS RAPID RESOLUTION OF ACUTE SUBDURAL HEMATOMA

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Introduction: Acute subdural hematoma (SDH) has a medical urgency with high mortality and morbidity. It is often caused by the damage to the cortical venules and is usually localized to the falx cerebri, fronto-parietal convexity, superior sagittal sinus, and interhemispheric fissure .

There are just very few cases which SDH shows rapid spontaneous resorbtion within hours without surgical intervention

Case: A 17-year-old male patient was brought to the emergency department (ED) by an ambulance due to nasal fracture. His pupils were isochoric, Glasgow Coma Scale (GCS):15, BP:123/78 mmHg, pulse rate: 92 pulses/min, respiration rate: 20/min at admission. During the boxing match, he was exposed to lots of blows to his head and face. He was wearing his protective gears. Left fronto-parietal scalp hematoma, blood clots in both nasal cavities, leaking epistaxis on the left side and fracture in nasal septum were observed on his physical examination. SDH with a 10 mm thickness was observed in the left fronto-parietal on cranial MDCT (Multi-Detector Computed Tomography, Brilliance 64; Philips Healthcare, Best, Netherlands) (Time=17:55) approximately half an hour after the patient's admission. He was hospitalized by the consulted neurosurgery division. The previously observed SDH field in the left fronto-parietal was diminished in many cross sections on his control cranial CT (Time=20:45) and the maximum thickness was detected as 3 mm. No neurological or clinical problem was observed and the control cranial MRI showed the remission of SDH. He was discharged at the 5th day of his follow-up.

Discussion: While the spontaneous resolution and redistribution rate in acute SDH depend on age, sex and individual characteristics, the shortest spontaneous resolution time reported in the literature is 2 hours. Although there is no consensus on the rapid resolution of hematomas, there are some hypotheses. SDH was clearly seen in the cranial CT of the first hour after the head trauma in our case. However, the width of the hematoma on the control CTs showed a decreasing manner every time, and finally the cranial MR taken before the discharge was almost entirely normal. Consequently, it should be kept in mind that hematomas may show rapid resolution which cannot be detected by cranial CT in some SDH patients and therefore cranial MR should be used for follow-up.

Keywords: Subdural hematoma, Computed tomography, Rapid resolution

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ABSTRACT NUMBER: 050

RESCUE THE INJURED CHILD FROM TRAFFIC ACCIDENTS

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Introduction: Politrauma is at the highest third place as the cause of death in Serbia, and in the population of 1-44 years in the first place. Traffic traumatism is certainly the first cause that causes the politrauma. In the district of Jablanica, there were 1,769 traffic accidents in 2012-2016; 49 people were died and 1352 injured. Of the people under the age of 30years, 402were injured and 7 died.

Methods: The data obtained from the field using the protocols of EMS Vlasotince. The aim was to point out the exceptional importance of the initial treatment for injuries in road accidents, as well as the respect of protocols and the order of actions in providing emergency care.

Case: On March 2, 2018, at 17:00 and 45 minutes, an emergency team received a call for a traffic accident.The medical team starts in the first minute and in 7 minutes they reach 10 km. to village of Ladovica were was the place of a traffic accident. We find a girl aged 6 years who was hit by the car on a roadway. The initial primary trauma by the ABCDE review shows that conscious, 20 respiration in a minute, a pulse accelerated 120 per minute, visible bleeding in the area of the right hip and lower jaw, heamathoma in the right side of the abdomen of a diameter of 10cmx15cm, anxious, frightened, painful sensitivity in the passive movement of the right leg. GKS = 15. Our medical treatment: the visible injuries in the right hip and lower jaw area were treated,cervical collar, IV acces, immobilization of the right leg by vacuum split. The patient was transferred to the spinal plaque and in the ambulance was given Ringer's solution of 500ml.The girl was transferred to the emergency center Leskovac within 15 minutes from the accident site.

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She was diagnosed a fracture of the right lower leg, thighs and pelvis and was transported to the children's surgical department in KC Nis.

Conclusion: Rapid arrival at the accident site, early access to the traumatized patient, emergency care for politrauma protocols and fast transport to the nearest hospital increase the likelihood of survival and reduce the consequences of traffic accidents.

Key words: politrauma, traffic accident, medical treatment, transport

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ABSTRACT NUMBER: 051

MILD FATIGUE AND FLICKERING IN CHEST AS ONLY SYMPTOMS OF VENTRICULAR TACHICARDIA

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Introduction: Symptoms told by patients determine direction of medical examination. Dramatic symptoms offer faster medical reaction, and on the other side, mild and untypical symptoms are treated not so seriously.

Methods: Using method of case report, we present patient, with large number of ventricular tachycardia in coronary artery disease (not known until then), and presented symptoms were not equal to dramatic health condition in that moment.

Case: Patient 62. years old was examined because of feeling tightening in the chest – during physical examination, palpitations and harder breathing. During cardiologist view, ECG, ultrasound of the heart, and clinical examinations were normal. Patient was sending to do 24. Hour ECG Holter monitoring and exercise testing. During 24. hour ECG Holter recording, while patient was walking, he feels only mild fatigue and flickering in chest. During recording analysis, during that time it was seen one sustained ventricular tachycardia with 67,23 seconds duration, with run of 236 premature ventricular beats, and pulse to 209 per minute. After few normal heart beats, its coming 70 episodes of non-sustained ventricular tachycardia, with runs from 7-74 premature ventricular complexes, and duration from 1,72 – 21,11 seconds, and pulse was from 189-215 per minute. All episodes of ventricular tachycardia were detected during walking in time period from 13:36 to 13:53 (time interval of 17 minutes). Before and after, ventricular tachycardia was not detected.

All premature ventricular complexes were in three morphological forms, and some were detected at the end of T wave, with couplets, bigeminal and trigeminal forms. Before first ventricular tachycardia was detected short time interval of ST depression in channel 1. Between ventricular tachycardia were few normal QRS complexes, but without ST depression. During the other recorded time were few short episodes of ST depression, but patient have not symptoms and without ventricular tachycardia. Later, using other diagnostic procedures was found existence of the coronary artery disease.

Conclusion: Relative mild symptoms were covering serious clinical condition. As only method for timely diagnostic of important pathological disorders, are using of all available medical methods, no matter to intensity of symptoms.

Keywords: ventricular, tachycardia, coronary, artery, disease

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ABSTRACT NUMBER: 052 – AWARDED PRESENTATION

BILATERAL RADIAL HEAD FRACTURES: AN UNCOMMON CASE REPORT

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Introduction: Radius fractures are among the most frequent reasons to present emergency department in orthopedic emergencies. However, bilateral radial head fracture is very rare.
Case: A 30-year-old male patient presented to the emergency department with complaints of pain and minimal movement restriction on the elbows after falling on both outstretched hands with both elbows in extension and both forearms in pronation. The patient was taken to the trauma room and an emergency evaluation and examination was performed. Anteroposterior and lateral radiographs of both the elbows revealed undisplaced bilateral radial head fractures classified as Mason type 1. The patient was treated with putting on bilateral long arm plaster cast as making forearm pronation and 90 degree flexion. The patient was discharged to the emergency room with calling control to orthopedic department.
Discussion: Fractures of the radial head are the most commonly seen elbow fractures in adults. However, bilateral radial head fractures are very rare. Vast majority of these injuries are seen by falling on outstretched hand. Conventional anteroposterior, lateral and oblique radiographs of the elbow are adequate for detection of radial head fractures. Treatment can be conservative or operative. Mason's classification is used to clinically to formulate the type and extent of treatment. The main problem after radial head fracture is failure to gain full extension Although it is very rare, bilateral radial head fracture should be suspected in patients who fall on outstretched hand and on both elbows, no matter how trivial the mechanism of injury. Because, early diagnosis, appropriate treatment and physical therapy will be provide complete recovery.
Keywords: bilateral fractures, radial head fracture, elbow,
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ABSTRACT NUMBER: 053– AWARDED PRESENTATION (YOUNG DOCTORS)

THE ROLE OF VIDEO-ASSISTED THORACOSCOPY IN DIAGNOSIS AND TREATMENT OF PLEURAL DISEASES

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Introduction: The lung tissue is a permeable serous membrane consisting of two layers: the outer (pleura parietalis) and the inner (pleura viceralis). The pleural space is the virtual space between these two layers. It contains physiologically 5-20ml of liquid and the pressure in it is negative -0.4 to 0.5 KPa. Pleural effusions are the most common pathological condition of the pleura. The consequences are diseases of the pleura itself, but also the mediastinum, intrathoracic organs, distant organs (nephrotic Sy, liver cirrhosis, pancreatitis), injuries and invasive procedures in modern medicine. Pneumothorax represents the accumulation of air in the pleural space. It can be primary or secondary. The secondary occurs on the field of the bulla, metastatic and primary lung tumors, infections, sarcoidosis, cystic fibrosis, parasitic cysts. The pleura tumors are malignant and benign mesothelioma. Video-assisted thoracoscopy is endoscopic, minimally invasive surgical procedure. Working surgical instruments are administreted through small incisions on the chest wall and itself is monitored under the control of the camera on the video screen. This method is a new dimension of thoracic surgery procedures.
Methods: retrospective and statistical processing of data from the history of the disease and histopathological findings of hospitalized patients at the Department of Thoracic and Cardiac Surgery of the MMA came to the results that we published in this paper.
Results: In the period from 01.01.2017 to 01.05.2018, 36 patients were hospitalized for planned VATS diagnosis and therapy of pleural effusions. This procedure covered 20 women and 16

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males of the average age of 58 years. Diagnosed were 17 malignant and 19 outbreaks of benign etiology. Pleurodesis was made by local instillation of sterile talc in 13 malignant effusions. In four patients, VATS decortication was made due to an intraoperative empyema. In the same period, 40 patients were treated with radial and clinical picture of pneumothorax. In nine patients, VATS was atypical resection of the lung apex due to bullae and recurrent pneumothorax. In this way, 8 men and one woman were treated; the average age was 37.6 years. The average time of hospitalization was 5 days. Other patients were solved by thoracic drainage, average age 52, but apart from spontaneous, traumatic pneumothoracis were also addressed. The average hospitalization time is 8 days. In two patients VATS was diagnosed with malignant mesothelioma pleura.

Conclusion: VATS is a greater possibility for diagnostic and therapeutic procedures in thoracic surgery. It is a small incision, low intensity pain, minor disorders in the respiratory function and a short stay in the hospital.

Keywords: pleura, pleural effusion, pneumothorax, VATS

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ABSTRACT NUMBER: 054

A DIFFERENT CAUSE OF SEVERE BACK AND CHEST PAIN: SUBCLAVIAN STEAL SYNDROME

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Introduction: Subclavian steal syndrome (SSS) is caused by proximal subclavian artery stenosis or occlusion, and usually presents with vertigo, presyncope or hearing loss due to vertebrobasilar insufficiency. We intend to emphasize that pressure differences in the limbs and associated clinical presentations do not always point dissection pre-diagnosis.

Case: A 78-year-old male patient with previously known coronary artery disease was admitted to the emergency department due to severe chest and back pain, dizziness and presyncope at last two days. He claimed that there was no accompanying fever, cough, sputum, shoulder pain, or numbness on the extremities. He was conscious and oriented with moderate general appearance. His physical examination revealed that his blood pressure on left arm: 89/57 mmHg, on right arm: 158/69 mmHg, respiratory rate: 18/min, fever: 36.7 °C. His heart and lung sounds were normal. Both his femoral pulses were weak on the periarterial examination. The cardiac enzyme measurements of the patient were also within normal limits with no pathologic changes on Electrocardiography. Due to a pathology possibility associated with aorta, CT angiograhpy was planned. It revealed that a total occlusion of the left subclavian artery in an approximately 2-cm segment, a 50% stenosis in the right subclavian artery and almost total luminal occlusive thrombi in both iliac arteries. The patient was hospitalized after the consultation process was completed with cardiovascular surgery.

Discussion: SSS is a rare condition associated with severe atherosclerotic lesions. The left subclavian artery is affected three times more frequently than the right. Most of the patients are asymptomatic and the diagnosis is often actualizing incidentally as a result of blood pressure difference between both arms. The main cause of the pressure difference is the retrograde flow due to stenosis and occlusion in the proximal subclavian artery. Blood pressure difference between both arms usually excesses 20 mmHg, and generally the numbness of the effected arm and the lack of pulse at the wrist level accompany. Arm movements and vigorious muscle contractions of upper extremity may aggravate symptoms of vertebrobasilar ischemia (paroxysmal vertigo, nausea-vomiting, hearing loss, double vision or speech impairment) and presyncope. The chief complain of our case was back pain. Neither, numbness of the arm nor neurological deficit due to arm movements was observed. The presyncope and back pain

symptoms of the patient suggested an aortic pathology at first, and therefore CT angiography planned. Although almost totally occluded bilateral iliac arteries were observed, no aortic dissection was seen. But, CT angiography additionally revealed the left subclavian artery occlusion. In a harmonious manner, the left upper extremity had a faint, low-amplitude pulse on the physical examination. In conclusion, even if neurological deficits are not observed in patients with severe back pain due to presyncope, all pulses should be checked and a possible SSS diagnosis should be considered. And SSS should be remembered especially when aortic dissection is suspected.

Keyword: Subclavian steal syndrome, aortic dissection, back pain, chest pain

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ABSTRACT NUMBER: 055

DIAGNOSIS IN THE FIRST EPISODE

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Introduction: The Emergency Medical Service of town of Belgrade for 24 hours with its 23 teams has between 200-250 interventions, of which 70 are in a public place (1). This means that an emergncy doctor annually provides around 600 patients. He/her provides emergency care to critically ill and severely injured persons, various somatic and psychiatric conditions. In his work he encounters a variety of pathologies, atypical manifestations of the disease, and psychic manifestations of somatic disorders or physical disorders of psychiatric patients. Because of this, an emergency medical physician who works independently in the field must have wide access to his job.

Emergency conditions in psychiatry that can be experienced by a specialist of emergency medicine include: acute psychosis, aggression, suicid, alcohol or drug-induced abstinent disorders and drug-induced disorders (neuroleptics).However, we can sometimes have patients with psychological symptoms, which are a manifestation of some somatic serious illness. Then we have to examine the patient in detail and carefully and refer him to adequate diagnostics, which will reveal the disorder in question.Psychiatric symptoms are not rare clinical manifestations of brain tumors. Brain tumors manifesting with symptoms of elevated intracranial pressure, focal neurological signs and convulsions are usually diagnosed with routine procedures in a neurologist or neurosurgeon. In "neurological silent" tumors, when psychological symptoms occur as the first sign, patients are referred to a psychiatrist. Thus, timely diagnosis and treatment is delayed (2).

Methods: case report of a 43-year-old patient. The data is obtained from the medical records of the physician from the field, as well as documentation from the on-site healthcare institution where the patient is sent for further diagnosis and treatment.

Case: The team receives a call of the first level of emergency (red call): Traffic accident, a tram collision. On the way to the site of intervention, the dispatcher contacts the team with new information received by the police. It is a tram, which was stopped abruptly in the middle of the road, driver has some unclear problem. A lot of people and police are waiting for us. Two men hold the patient. The eyewitnesses say that the tram driver suddenly jumped from his place, while driving, started shouting and speaking unrelatedly. They deny that he has lost consciousness or shaken. The other person stopped the tram and tried to calm him down. He is seated, sitting in a forced position, holding him. He's trying to get rid of it. He does not answer to questions. Just repeats to let him go. Verbal communication cannot be established. Do not follow the view. He moves his arms and legs symmetrically. Rough muscular strength preserved, reflex symmetrical, deep and superficial sensitivity preserved. No change in cranial nerves. The pupils are equal, circular, symmetrically reacting to light. Glycaemia: 4.5 mmol/L. Vital functions are normal. Ekg: normal. After examining the patient, we set an IV line and refer to neurologist and psychiatrist under the diagnosis: Crisis of Consciousness and Psychosis acute et transitive.Later,

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we find out from medical records that a patient's wife came to the hospital, who denied chronic diseases and conditions. She said that the patient never had a similar episode. He was first examined by a neurologist, the physical finding was normal. Then a CT head was made, where the tumor formation in the frontal lobes was seen, indicating an expansive process. The psychotic episode of this patient was the first manifestation of the tumor he had.

Discussion: We can see that psychological symptoms can be the only manifestation of individual brain tumors, especially frontal lobes, in middle-aged men (3). Such patients are often referred to a psychiatrist and the exact diagnosis is made only when the tumor rises and starts to pressure the brain. Patients who report to a doctor due to mental disorders or behavioral disorders deserve a multidisciplinary approach to all somatic conditions that can trigger, imitate, or exacerbate psychological symptoms. The doctor, a specialist in emergency medicine, who first examines the patient, must have a wide access in his work and on the reception of the duty clinic to a colleague, who will be able to clearly state why a patient points to further diagnosis and who will understand it.

Keywords: Psychological symptoms, silent tumors

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ABSTRACT NUMBER: 056

IDENTIFICATION PREDICTORS OF IN HOSPITAL MORTALITY IN PATIENTS WITH POLYTRAUMA

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Introduction: Trauma is among the leading causes of death in all age groups. Each year it is estimated that around 5.8 million people worldwide die as a result of trauma. The new definition of polytrauma based on the new Berlin definition, as a case with AIS ≥ 3 for two or more different body regions with additional one or more variables from the five physiologic parameters (hypotension [SBP ≤ 90 mmHg], unconsciousness [GCS score ≤ 8], acidosis [base excess ≤ −6.0], coagulopathy [partial thromboplastin time ≥ 40 s or international normalized ratio ≥ 1.4], and age [≥70 years]). Polytrauma management requires a team approach, five to eight members (doctors, nurses and other health-care professional staff) for maximal effectiveness determine independent predictors of in-hospital mortality in patients with poytrauma.

Methods: Longitudinal study included 208 consecutive patients with severe trauma admitted to the Emergency Center, Clinical Center of Serbia in Belgrade. Patients were followed until discharge or death. In order to determine independent contributors to survival, univariate and multivariate Cox regression analyses were performed.

Results: There were 159 (76.4%) male and 49 (23.6%) female patients, with average age of 47.3±20.7 years. Majority of patients were intubated (86.1%), sedated (59.6%) on mechanic ventilation (94.2%) and with spontaneous insufficient breathing (99.5%). The largest proportion of patients was traumatized in car crash (33.2%), followed by falls from the height (26.4%) and as pedestrians (22.6%) Patients had an average of 24.7±21.2 days spent in intensive care unit (ICU). The overall case-fatality ratio was 17/208 (8.2%). In Cox regression analysis only elevated heart rate (HR=1.03, p=0.012) and decreased saturation (HR=0.91, p=0.033) singled out as independent contributors to survival of patients with severe trauma.

Conclusion: Results of this study showed important role of components of REMS in prediction of outcome in patients with severe trauma and that heart rate and oxygen saturation are independent predictors of in-hospital mortality.

Keywords: Polytrauma, Rapid Emergency Medicine Score(REMS), cohort study

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ABSTRACT NUMBER: 057– INVITED LECTURE

POCUS USE IN SHOCKED PATIENT

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Use of Point-of-Care UltraSound (PoCUS) radically changed the management of acutely ill, injured and shocked patients. Different PoCUS protocols are used for different medical conditions. The Extended Focused Assessment with Sonography in Trauma (E-FAST exam) is now routinely used for trauma patients. Its equivalent Rapid Ultrasound for Shock and Hypotension (RUSH exam) is used in patients with acute medical illness. In both mentioned protocols different views should be visualized: the heart, inferior vena cava, Morison's and splenorenal space with basal pleural spaces, bladder, aorta and pulmonary views. In a trauma setting we are trying to detect free fluid (bleeding), pneumothorax or pericardial effusions. In non-trauma patients we are trying to distinguish main shock types based on the underlying cause and potential treatment responses. PoCUS is useful in various clinical settings and situations. It is easy to perform for a skilled operator, with high sensitivity and specificity and safe to use with no contraindication even in pregnant women. It si possible for false negative and also false positive examinations to occur. The biggest limitation is an operator who lacks skills and is not able to recognize occuring pathologies. One must remember that not all injuries and medical conditions causing shock and hypotension can be detected with PoCUS.

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ABSTRACT NUMBER: 058

METFORMIN-ASSOCIATED LACTIC ACIDOSIS (MALA):
A CASE REPORT AND LITERATURE REVIEW.

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Introduction: Metformin has been for decades a drug of choice for the treatment of type 2 diabetes mellitus. Metformin associated lactic acidosis (MALA) through inhibition of the mitochondrial respiration is a well-known side effect of metformin, typically induced through accumulation of metformin due to renal impairment and a secondary event that leads to further elevation of lactate or disrupts lactate clearance. The mortality rate of MALA can be as high as 70%, strongly related to pH, lactate and metformin levels, so that the early recognition and assessment of therapeutic measures in the emergency department is of critical value. We present a case report and a literature review of this clinical entity.

Case: A 56 year old male patient was admitted to the emergency department due to shortness of breath, chest pain and hypotension since the last few hours. He mentions of being anuric and having increasingly strong lower back pain and diffuse myalgia the last two days, for which he used high doses of paracetamol and NSAIDS. His medical history: hypertension under treatment with Lisinopril and Nebivolol, dyslipidemia, malignant obesity (BMI>50), off-label use of metformin in order to lose weight, smoking, alcohol misuse and use of laxatives. He was conscious and alert, blood pressure 95/50mmHg, pulse 103bpm, 28 breaths per minute, SO2 97% and a temperature of 35C. Initial blood tests found creatinine of 11.3mg/dL, urea of 204mg/dL, sodium 133mmol/L, potassium 5.5mmol/L, chloride 89mmol/L, blood lactate 20mmol/L. His arterial blood gas showed severe, wide anion gap lactic acidosis (pH 6.93, pCO2 18mmHg, pO2 145mmHg, HCO3 6mmol/L, base deficit 26.4mmol/L, anion gap 38). He was initially treated with iv crystalloids, wide spectrum antibiotics and sodium bicarbonate. Despite the use of large amounts of crystalloids and sodium bicarbonate, there was no improvement of the patient's acid-base disturbances. A few hours after admission the patient became agitated and developed profound hypotension with need of high doses of noradrenalin, so that tracheal intubation was performed for airway protection. A CT-Scan of thorax and abdomen revealed

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lung emphysema with bronchiectases, signs of hepatopathy and portal hypertension as well as profound atherosclerosis. The patient was admitted in the ICU and continuous veno-venous hemofiltration was initiated. After an initial improvement of his renal function and acidosis, the patient developed cardiac arrest with asystole and died 36 hours after admission.

Discussion: Despite the fact that MALA is a well-known side effect of metformin, it can be overlooked due to its rarity and clinical similarity with other major pathological situations, such as sepsis. It must be suspected by every patient with profound wide anion gap metabolic acidosis and extreme lactate values, even if the patient does not have diabetes or known renal impairment, especially by patients with altered mental status. The timely initiation of hemodialysis or CVVD with parallel treatment of a possible secondary event is the standard of care and of extreme value, due to the very high mortality rates of MALA . Sodium bicarbonate should not be used, as it only causes a further efflux of lactate out of the intracellular space without improvement of the acid-base status and synchronous iatrogenic hypernatremia and hypervolemia . In the literature there are also case reports that emphasize on the potential effect of methylene blue as salvage therapy in extreme cases of MALA with shock and acidosis refractory to standard treatment.

Keywords: metformin, acidosis, lactate, MALA

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ABSTRACT NUMBER: 059– INVITED LECTURE

CARDIOPULMONARY RESUSCITATION – TRUTHS AND MISCONCEPTIONS

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When observed throughout the history, cardiopulmonary resuscitation (CPR) was carried out through the current recommendations at that time, but was always followed by various misleads and controversies. Even nowadays, in the 21st century, in which we have scientifically founded evidences and recommendations of the European Resuscitation Council (ERC) in Europe and of the American Heart Association (AHA) in the United States of America, there are still some misleads in the CPR practice. Almost every segment of CPR measures carries along some controversies and misconceptions. Although we have once used the Basic Life Support (BLS) measures in the ABC order, today's recommendations advise these measures to be applied in the CAB order, except in case of hypoxia or in children. Compression-only CPR (without rescue breaths) which was previously disputed nowadays is permitted for non-medical professionals. Hyperventilation was previously routinely used as a therapeutic measure due to its beneficial effect on cerebral vasoconstriction, but nowadays is contraindicated due to its various adverse effects.

During the last twenty years the ratio of chest compression and ventilation in CPR has changed significantly in favor of chest compressions. The use of Sellick's maneuver which is considered even in the contemporary airway management guidelines is controversial and related to long lasting misconceptions. Although endotracheal intubation as a method of airway management is associated with a number of beneficial effects, it postpones the onset of CPR, so the endotracheal intubation has lost its significance and recent studies show that it does not increase the success of resuscitation. The invention of automated external defibrillators has made defibrillation possible in public places, by untrained rescuers-bystanders and has increased the success of CPR. The construction of biphasic defibrillators allows a greater success of CPR with less adverse effects compared to monophasic defibrillators. "One-shock" strategy has replaced "three-shock" strategy, which is reserved for specific circumstances. The dilemma whether to use self-

adhesive electrode pads or standard hand-held electrode paddles is solved in favor of self-adhesive electrode pads.
The use of drugs during CPR has in the past brought many truths, but also controversies and misconceptions. Adrenalin, as the first-choice drug is not ideal, but because of the huge, decades-old experience it is still used today. It's been over ten years since the amiodarone has entered the routine practice as the first choice antiarrhythmic and since it has replaced lidocaine. Atropine was once used in asystole, and today, ten years later, it is completely eliminated from the therapy during CA. The administration of bicarbonates used to be routinely used. However, researches in the field of pathophysiology of CA have shown that in the first twenty minutes of CPR we should fight against respiratory acidosis by adequate elimination of CO2 with ventilation. When it is not possible to provide an intravenous access (peripheral or central), new recommendations advise the use of the intraosseous access. Post-cardiac arrest treatment also carries along a lot of controversies and misconceptions. The new recommendations do not advise prolonged hyperventilation and hyper oxygenation. Today we unfortunately still don't have the answer which is the best treatment of post ischemic anoxic brain damage. Based on ILCOR recommendations, new ERC guidelines for CPR, propose the use of "targeted temperature management"- TTM, in which our country and region have are quite modest experiences.

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ABSTRACT NUMBER: 060– INVITED LECTURE

HOSPITAL TREATMENT OF THE TRAUMA PATIENT

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Trauma is among the leading causes of death in all age groups. Each year it is estimated that around 5.8 million people worldwide die as a result of trauma. The structured approach is based on a primary assessment to recognise immediate life-threatening problems (requiring immediate intervention) and a subsequent secondary assessment. The Advanced Trauma Life Support (ATLS) programme is the most widely used.The new definition of polytrauma based on the new Berlin definition, as a case with AIS ≥ 3 for two or more different body regions with additional one or more variables from the five physiologic parameters (hypotension [SBP ≤ 90 mmHg], unconsciousness [GCS score ≤ 8], acidosis [base excess ≤ −6.0], coagulopathy [partial thromboplastin time ≥ 40 s or international normalized ratio ≥ 1.4], and age [≥70 years]).Polytrauma management requires a team approach, five to eight members (doctors, nurses and other health-care professional staff) for maximal effectiveness.Rapid clinical assessment should be done systematically (following the 'A-B-C-D' approach) and should not take more than a few minutes. The secondary assessment follows the primary assessment and associated interventions and constitutes a systematic head-to-toe examination aiming to clinically recognise all sites of injury. Although X-ray and sonography(eFAST) are important in trauma management, a standardised, protocol-based head, neck, chest, abdomen and pelvis CT scan (so called trauma scan) is the central radiologic technique when managing the multiple trauma patient. The post-acute phase of trauma care commences in the intensive care unit.

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ABSTRACT NUMBER: 061

LUMBAR VERTEBRA FRACTURE – FROM INJURY TO REHABILITATION – CASE REPORT

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Introduction: A spinal trauma can cause damage to the spinal cord, spinal cord, or both. Sometimes the spinal nerves are affected. In the United States, an annual> 10,000 spinal cord injuries occur. Almost 40% of them occur during a car collision (or in traffic accidents) and 25% due to injuries sustained during contact (beat). The rest is attributed to falls, sports and accidents at work. More than 80% of patients are men.
In order for the outcome of the treatment to be trauma to be beneficial, it is essential that the patient is adequately taken care of after the injury itself - respect and application of the PHTLS principle, then detailed diagnosis, timely operative care and, of course, rehabilitation - early, outpatient and stationary.
Methods: The case report method is used. Data obtained by clinical examinations and from available medical documentation. The aim of the paper is to show the effects of multidisciplinary approach to trauma.
Case: Patient M.M. , 46 years old, when falling into a well 12 meters deep, he received multiple injuries. Initially he has taken care in General Hospital Bar. The observed fracture of the body L2 with spinal canal stenosis, the fracture of the VII-IX rib on the right, and the haemathopneumothorax on the right. In General Hospital Bar, the drainage of the pleural cavity was performed. Patieent was sent to Clinical Center of Montenegro. After preoperative preparation, transpedicular stabilization of L1-L3 , as well as decompression of the spinala canal was done. Drainage of the pleural cavity on the right was continued. In Intensive Care Unit, patient was examined by PRM specialist – the paraparesis of the lower extremities, more pronounced to the right. Early rehabilitation started. Patient was regulary monitored by an orthopaedist, chest surgeon and PRM specialist. The patient was transferred to the Clinic for Orthopedics and Traumatology for further treatment. Early rehabilitation continued – ROM exercises by segments, exercises by type for paraparesis (active assisted to active), sitting in bed and on the edge of bed, respiratory kinesitherapy. Neurological deficit in mild regresion. After discharge, the treatment was continued at the regional hospital, followed by ambulatory physical treatment at the place of residence. In June 2017, a stationary physical treatment was performed for 21 days. On admission, patient refered weakness and tingling in legs, and problems with walking. Ordinary combined physical therapeutic procedures with the aim of reducing the subjective symptoms, improving the functional status of the locomotor system and improving general physical fitness. On discharge, the neurological deficit is considerably reduced, gait corrected, subjective symptoms reduced. Patient received recommendationes for exercising at home.
Conclusion: The multidisciplinary approach of trauma, from the moment of injuries, through the implementation of diagnostic procedures, adequate operative treatment, as well as the implementation of early and stationary rehabilitation, enables a good recovery of the patient in terms of maximal reduction of subjective problems, improvement of functional status and independence in the activities of daily life, and therefore reduction of complications.
Keywords: fracture, trauma, spine, rehabilitation

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ABSTRACT NUMBER: 062

RECOSTRUCTION OF THE UPPER LIP AFTER THE REMOVAL OF SKIN CARCINOMA

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Introduction: Upper lip defects are usually caused due to complete or partial ablation (resection) of the tumor (planocellular and basocellular carcinomas) or as a result of trauma of the head and neck area. Smaller defects are generally reconstructed surgically, with the use of local vascular flaps, while in the case of large defects reconstruction is performed by surgical transposition of distant flaps with the use of micro-vascular technique that is specifically designed for soft tissue defects. Surgical reconstruction can be limited by the condition and amount of soft tissue of the face, especially, if the patient was previously subjected to high dose radiation therapy of the region (70 Gy) due to malignancy and if as a result of radiation therapy, a significant degree of damage to the local vascular network has occurred.

Objective of research: To analyze the size of defects that occurred after surgical removal of the tumor and to propose the optimal solution for the reconstruction of the defect

Material and method of research: Material consisted of patients who are being treated in the Emergency Center KCS-Clinic for Emergency Surgery in the period from 01.01.2017 to 31.12. 2017. Of the total of 26 patients, 17 were male and 9 female. Patients had a life span of 44 to 76 years, on average 57.5 years. After the evaluation of patients, and examination of the diagnostic procedures and surgical procedures, along with the revision of operational report lists and the history of patient's disease, the descriptive statistical method of patient evaluation was preformed to assess and classify our results.

Results: On the patient's material, 26 of them, we looked at the best result from reconstructive surgery after the removal of the skin tumor of the upper lip. If the defects were greater than 1 cm, local transposition flaps gave the best result. In larger defects up to 1/3 we used the method sec Karapandžić, and in two cases, we reconstructed the use of the free radial fasciocutaneous flap. The radial fascio-cutaneous flap, which is most commonly used to cover head and neck defects, was first described by Young and Song for the first time in 1981, and is also referred to as the "Chinese Flap".

Conclusion: In all patients, defects were treated in the same act along with the excision of the upper lip tumor of the skin. The use of local and regional flaps in the reconstruction of defects on the upper lip is limited by the amount and composition of the available tissue. In the use of free micro vascular flaps, the closure of soft tissue defects is a modern and comprehensive approach to reconstructive head and neck surgery, but it is limited by the length of the vascular pedicle, or the arc of rotation.

Keywords: skin carcinoma, reconstruction, free flaps, micro vascular reconstruction

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ABSTRACT NUMBER: 063

FROM SYNCOPE TO PULMONARY EMBOLISM

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Introduction: Pulmonary embolism is the obstruction of flow in the pulmonary artery and its branches caused by an embolus - biological material, foreign body or even air - which circulates into the lungs from the distant body part. In a narrow sense, however, it is commonly referred to as pulmonary thromboembolism (PTE) caused by biological material, or blood clot (thrombus), which mainly comes from deep veins of the lower extremities or pelvis. According to the global frequency, pulmonary thromboembolism is at high third place among cardiovascular diseases, with an annual incidence of 100 to 200 cases per 100,000 people.
Methods: We will show the case of a woman with confirmed pulmonary embolism, a relatively mild symptomatology at the onset of the disease, as well as diagnostic and therapeutic measures.
Case: A 45-year-old patient was admitted to the cardiology department due to feelings of dyspnea, light chest tightness and light fatigue. The complaints began about 12 hours before admission, as a sudden onset of general weakness after easier effort and short-term loss of consciousness. She reported to a general practitioner who, after full examination, and the ECG let the patient go home for treatment. After a few hours, short-term loss of consciousness has happened again after which the patient was hospitalized in the internal department. At reception she was aware, oriented, afebrile, dyspnea, acyanotic, obese. An auscultatory finding on the heart was neat. Auscultation of the lungs showed intense breathing noise with discrete cracks at bases and rare nonsonic visions. Peripheral pulsations were neat. TA 100/70 mmHg. ECG: sinus rhythm, 115 / min, ST depression up to 0.5mm in D1, aVL, q in D3, negative T in D2, D3, aVF, V2-V6. Ultrasound of the heart: EF 50%, right ventricle easily dilated. Hypokinesia of the middle part of the free wall with a reduced global systolic function. MSCT Thorax: In the finding dominates massive thromboembolism with defect in filling of the distal part of the right main pulmonary artery and the initial parts of its lobar branches. Ultrasound of the abdomen: no abnormality detected. Color Doppler blood vessels of the lower extremities correspond to age, with no signs of thrombotic events. During the hospitalization hematologist and gynecologist has been consulted. Patient has been treated with thrombolytic therapy by protocol for pulmonary embolism, and subsequently treated with heparin derivatives as well as oral anticoagulants, after which there were a subjective and objective improvements. In good general condition patient was released for home treatment.
Discussion: Platelet-blocked blood vessels of the lungs can have asymptomatic forms beeing discovered accidentaly , but also the most difficult forms in which the first manifestation is a sudden death. Lung disease can happen to almost everyon pers, even completely healthy, and can be life-threatening, but the fatal consequences of this urgency and relatively frequent condition are greatly reduced by its timely detection and treatment. In our case, the symptoms as well as the ECG record, were not typical for PTE, but more detailed searches certainly led to proper diagnosis and adequate treatment.
Keywords: pulmonary embolism, thromboembolism, syncope

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ABSTRACT NUMBER: 064

MAXILLOFACIAL INJURY IN SERIOUSLY INJURED PATIENTS

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Introduction: Facial bones are often exposed to injury and are often multiple fractures.
The aim of this study is to assess the incidence and cause of facial injuries in seriously injured patients, to examine the role of maxillofacial surgeon in treatment.
Method: In our prospective study, 66 patients with serious multiple facial fractures were treated in the Otorhinolaryngology and Maxillofacial Clinic of the Clinical Center of Montenegro.
Results: Most patients were male (80%) with a mean age of 47 years. The overwhelming mechanism of injury is traffic trauma in 33 (50%) patients. Intracranial hemorrhage was found to be the most serious injury in these patients (69%). Thirty-three patients (50%) required multidisciplinary treatment. A total of 44 (66%) patients were treated surgically, of whom 9 were in emergency surgery.
Discussion: Maxillofacial injury is often associated with the risk of other serious injuries, especially traumatic brain injury. Although emergency procedures are needed only in rare cases, diagnosis and treatment of such occasional injuries have the potential to be overlooked or postponed in seriously injured patients.
Keywords: maxillofacial fractures, treatment, multiple fractures
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ABSTRACT NUMBER: 065

FACTORS ASSOCIATED WITH FATAL OUTCOMES OF STROKE

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Introduction: Cerebrovascular diseases belong to a group of massive, non-communicable diseases with a significant rate of morbidity and mortality, a large percentage of severe disability, disablement, psychiatric disorders and, therefore, they have great socio-economic significance, especially when it comes to the elderly population.
Methodology: This observational, non-interventional study, done by the type of case series, tested the neurological profile of patients with cerebrovascular insults, through a patient analysis at the Neurological Clinic of the Clinical Center Kragujevac and the effect of the risk factors on cerebrovascular insults. The data used for the research are: documentation of Neurology Clinic, Clinical Center of Kragujevac (patient admission protocol), documentation of the Republic Hydrometeorological Institute of Serbia (Department of Applied Climatology) and documentation of Institute of Public Health Kragujevac for a one-year period (from 01.02.2013 to 31.01.2014). After collecting this data, an analysis was performed by forming a database in SPSS v.19 for Windows, and processing of the data using descriptive statistics methods. The sample consists of all patients hospitalized at the Neurology Clinic during the observed period with the diagnosis of cerebrovascular insults. 290 patients were surveyed. Patients included in this study have diagnoses ranging from I 63 to I 67, according to the 10th International Classification of Diseases.
Results: The average age of patients was 71.69 ± 11.17 years, with the youngest being 34, and the oldest 95 years old. Out of 290 observed patients, 212 survived a stroke at the average age of 69.35 ± 11.19 years, while 78 patients died at an average age of 78.04 ± 8.30 years. The

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difference in the mean age value of the deceased and the survivors is statistically significant (p < 0,0005). Each year of age increases the risk of fatal outcome by 9.6%, where patients with a mild diseases have about 5 times lower risk of death than patients with a more severe diseases. In the observed sample, there were 159 men (54.8%) and 131 women (45.2%). When it came to gender, we noticed that 130 male patients (81.8%) and 82 female patients (62.6%) survived stroke, while the number of deceased male patients was 18.2% and female 37.4 %; the gender and fatal outcomes were statistically significant (p < 0.00005); and survival rate in women was lower than in men (p = 0.001). When it came to the hospital stay, patients who survived the stroke stayed on average for 15.17 days in the hospital, out of which the deceased patients stayed on average 8.51 days, and the difference between the mean number of days in the hospital of the deceased and the survivors was statistically significant according to Levene's Test for Equality of Variances (p <0.0005). In relation to the type of stroke, there were 250 patients (86.21%) with acute ischemic stroke, 32 patients (11.03%) with intracerebral hemorrhage, 8 patients (2.76%) with subarachnoidal hemorrhage. Statistical analysis showed that the type of stroke and death outcome were almost dependent (p = 0.054). 136 male patients (85.53%) had acute ischemic stroke, 18 (11.32%) intracerebral hemorrhage, and 5 (3.14%) subarachnoidal hemorrhage. In female patients, 114 (87.02%) had ischemic stroke, 14 (10.69%) intracerebral hemorrhage, and 3 (2.29%) subarachnoidal hemorrhage.According to the severity of the disease, respondents were divided into patients with a mild clinical picture - 49 (16.9%), and a severe one - 241 (83.1%). An analysis of the questionnaire revealed that the severity of the disease and fatal outcome were dependent (p< 0.00005). Statistical analysis showed that age (p = 0.040), diuretics (p = 0.028), sport (p = 0.0005), length of doing a sport (p = 0.031), frustration due to family problems (p = 0.001)), wedding (p = 0.005) and retirement (0.012) influenced the occurrence of severe form of the disease. By analyzing the existence of free time, respondents were divided into the following groups: inactive (31.7%), recreational walker (18.7%) and actively trained (12.5%). Statistical data processing revealed that free time and fatal outcome were dependent (p = 0.045). By analyzing the profession of the respondents, they were divided into the following groups: employed, unemployed, retired, farmer and housewife. The results showed that farmers had 100% survival rate, employees 97.4%, pensioners 69.9%, unemployed 66.7%, and housewives 59.6%. Statistical analysis showed that there was a dependence between employment and fatal outcome (p = 0.045). Also, by analyzing the marital status, respondents were divided into the following groups: single, married, divorced, widow/widower. Data processing has proven that unmarried 85.7% and divorced 85.7% had the highest survival rate, while the lowest survival percentage belonged to widows and widowers 72.9%. Statistical analysis showed that marital status and fatal outcome were dependent (p = 0.043). By analyzing the consumption of nicotine, respondents were divided into the following groups: smoker, ex-smoker, and non-smoker. The highest survival rates had ex-smokers with 86.7%, then smokers with 76.5%, while the lowest degree of survival of the stroke had non-smokers with 68%. Statistical analysis showed that smoking and fatal outcome were dependent (p = 0.032). Also, statistical data processing pointed out that the length of nicotine consumption, the number of cigarette packs, the consumption of cigarettes with the filter and the fatal outcome were dependent. By analyzing the length of smoking - the nicotine consumption, respondents were divided into the following groups: smoker up to 10 years, smoker for 11-20 years, smoker for over 20 years, and non-smoker. The highest survival rates had up to 10 years smokers - 100%, then 11-20 years smokers - 93,3%, while the smallest degree of survival of the stroke had non-smokers 67,6%. Statistical analysis showed that smoking and fatal outcome were dependent (p = 0.028). Also, statistical data processing pointed out that the length of nicotine consumption, the number of cigarette packs, the consumption of cigarettes with the filter and the fatal outcome were dependent, but the research was actually conducted on a rather small sample of people, so it was excluded from this paper. By analyzing the consumption of alcohol, respondents were divided into the following categories: Consumes alcohol continuously, consumes alcohol occasionally and does not consume alcohol. The statistical analysis showed that alcohol consumption and fatal outcome were dependent (r = 0.002), whereas the

consumption of different types of alcohol and fatal outcome were not dependent, except for the consumption of beer (p <0.0005). The survey questionnaire contained a series of questions related to life stress situations which also were considered one kind of factor associated with fatal outcome. Parent health care (p = 0.008), business problems of the respondents (p = 0.024), mortgage care (p = 0.008), frustration due to family problems (p = 0.046), frustration due to finances (p = 0.008) were also related to the fatal outcome of the respondents. By analyzing medication, respondents were divided into these groups, whether they were taking or not taking the following drugs: antiarrhythmics, bronchosmazmolytics, antisatics, antibacterials, antidepressants, anticoagulants, beta blockers, calcium channel blockers, diuretics, digitalis glycosides, insulin, hypolipemics, oral antidiabetic agents, ACE inhibitors, coronary vasodilators, vasoprotectives, vitamins, sedatives and hypnotics, NSAIDs, peripheral vasodilators and histamine-2 blockers. Out of these groups of drugs, statistical significance was found only in the use of antidepressants, where the use of antidepressant and fatal outcome were almost dependent (p = 0.064). Respondents taking antidepressants had about six times the risk of fatal outcome.

Discussion: By analyzing the data with the help of a univariate binary logistic regression, it was concluded that fatal outcome was related to age (p<0,0005), gender (p<0,0005), the severity of the disease (p = 0,002), smoking (p = 0,021), the length of smoking (p = 0.003), parent care (p = 0.018), problems at work (p = 0.018), while the influence of antidepressants (p = 0.066) was indicative. Data analysis with the help of multivariate binary logistic regression showed that fatal outcome was influenced by age (p< 0.0005), the severity of the disease (p = 0.020) and the use of antidepressants (p = 0.030).

Keywords: Stroke, risk factors, fatal outcome

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ABSTRACT NUMBER: 066

HEAVY CHEST TRAUMA-CASE RAPORT

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Introduction: Chest trauma often represent critical vital state which in most percentage cases ends lethal because of heart, lung and big thoracic vesselswounds. Most common hurt of chest and internal organs were caused by falls from the height, falls of heavy objects, cold or firearm, but most common cause is traffic traumatism.

Aim of work: Case report of heavy chest trauma which ends with life rescue of person with assistance several prehospital and hospital teams

Methodology: Case report of female who was hurt under insufficiently clarified circumstances in traffic accident after which she hit the wooden fence. The patient was 54 years old.

Case report: Emergency team arrived at the scene of traffic accident at 24.th June 2017. in 17,45 hours in which there was haevily hurt female patient as driver of vehicle. At sight it was ascertained serious chest trauma in the form of penetration wound with wooden joist in the right side of chest as a spear. Patient was unconsious, GCS-9, pale, with blood pressure 98/50mmHg, f-104/min, SaO2-90%, in heavy prostration, with abundant hemorrhagearound the site of a breakthrough. The team stabilized forreign body, executed temporary hemostasis, placed intravenous needle with phisiological saline solution and secured the airway with facial mask with stabilization of cervical spine with cervical collar. After stabiliyation of patient there was executed a rapid transport to hospital with Oxygen 15 l/min.At the hospital reception patient was unconcious, f-70/min, SaO2- 70%. Wooden joist 10x4 cm, long about 1,5 m was stabed in front of the chest, right breast and exit in right armpit. Patient was intubated, it was executed the chest dreinagge and extirpation the foreign body. Afetr the initial diagnostics(MSCT head, neck, chest, abdomen and pelvis) it was done the necrectomia, trombendarectomia with

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anastomosis of arteria axillaris. The patient was put on mechanical ventilation in 19,40 h. During the hospitalisation it was consultated the specialists of related branches and done: 06.07. ex right thoracic drein, 12.07. ex left thoracic drein and percutaneous tracheotomy, 20.07. reconstructiovulneris, 21.07. separated from respirator, 26.07. aplicatioV.a.C. th, 08.08. done the Tirsch reconstruction, 16.08. replaced plastical cannula wtih metal which was removed 28.08. Durng the hospitaliyation patient was treated with multiple antiobotics, antimicotics, gastroprotectives, antikoagulants, analgetics, bronchodilatators, antihipertensives, kardiologics, antiepileptics, vitamines, hormone substitutions, cristaloid and coloid saline solutions with blood and plasma. She was fed with enteral nutrition. She was discharged at 01st September 2017.

Conclussion: Heavy chest trauma represents a vital threatening state which demands multidisciplinary aproach, prehospital and hospital, for the salvation of patients life.

Key words:Trauma, Chest, Traffic traumatism

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ABSTRACT NUMBER: 067

POISONING WITH MALATHION

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Introduction: Organophosphorous (OP) compounds have been employed as pesticides, petroleum additives and chemical warfare nerve agents. The organophosphates have been used as pesticides for more than 50 years and are still used in most developing countries. Pesticide poisonings are among the most common modes of poisoning fatalities. Worldwide mortality studies report mortality rates from 3-25%(250000-350000 deaths per year globally).Mortality rates depend on the type of compound used, amount ingested, general health of the patient, delay in discovery and transport, insufficient respiratory management, delay in intubation, and failure in weaning off ventilatory support.

Case report: Patient M.J. (62Y) was admitted to the Emergency department of General hospital Pirot in poor health with impaired mental status, diaphoretic, with signs of bronchorrhea, pin-point pupils and was giving off a strong etiol smell from her breath. The patient was breathing spontaneously and according to the eyewitness, she drank a whole bottle of Etiol (1L) 45 minutes before admission, also according to the man who accompanied her to the ER she was apparently depressed last couple of days. In the prehospital treatment she was given 3 doses of IV atropine, 1000cc of saline and also she was given to drink milk. During transport the patient vomited a few times and it will latter to be confirmed that she had aspirated the vomited contents. Vital parameters were: TA 80 / 50mmHg, HR 60/min, RR 28/min, SpO2 93%, Gly 5,5mmol/l, serume amy 116U/l.At the admission in ICU the reanimation measures were initiated in order to stabilize the patient. Stomach was flushed with administration of the activated carbon. The patient received amp. Atropine 1mg at every 5min (total of 38mg for 4h) until reaching SF 110 / min, SBP 100mmHg. Early after admission, due to deterioration of the respiratory function, the patient was intubated and placed under mechanical ventilation (BiPAPtype), also administration of antibiotic, bronchodilator agents, diuretic, continuous midazolam IV, amp. MgSO4 2g / 12h and Sol.NaHCO3 100ml / 8h and multivitamin therapy followed. In the course of the illness, severe ARDS is developed due to aspiration of the stomach contents with radiological and laboratory confirmation (lung consolidation with signs of aspiration pneumonia, increased inflammatory parameters, FiO2 / Po2 = 117.5). Three days later there is loss of most muscarin effects except of lacrimation, while muscle weakness (the impossibility of moving the limbs, the impossibility of any attempted inhalation) persisted for the next 12 the days, which, along with the ARDS made every attempt to separate the patient from mechanical ventilation impossible. During the hospitalization at the ICU, Center for toxicology of the MMA, an internal medicine specialist and physiatrist was consulted. After a

three-week period patient is in a relatively good conditions transferred into psychiatric ward, from which she was released two months later.

Discussion: The underlying mechanism involves the inhibition of acetylcholinesterase (AChE), leading to the buildup of acetylcholine (ACh) in the body. Acetylcholine is the neurohumoral mediator at the cholinergic junctions. Since acetylcholinesterase is the enzyme that degrades acetylcholine following stimulation of a nerve, by inhibiting acetylcholinesterase, organophosphates allows acetylcholine to accumulate and result in initial excessive stimulation followed by depression. Mnemonic devices used to remember the muscarinic effects of organophosphates are SLUDGE (Salivation, Lacrimation, Urination, Diarrhea, GI upset, Emesis) and DUMBELS (Diaphoresis and diarrhea; Urination; Miosis; Bradycardia, Bronchospasm, Bronchorrhea; Emesis; excess Lacrimation; and Salivation). Nicotinic signs and symptoms include muscle fasciculations, cramping, weakness, and diaphragmatic failure. Autonomic nicotinic effects include hypertension, tachycardia, mydriasis, and pallor. Goals of treatment are reduce absorption of the toxin, enhance elimination and neutralize toxin.Treatment begins with decontamination. Airway control and oxygenation are paramount. The mainstays of pharmacological therapy include atropine and benzodiazepine. Initial management must focus on adequate use of atropine.

Conclusion: The case of a patient with deliberate organophosphate poisoning has been presented, which was developed by ARDS after frequent poisoning as a frequent follower of organophosphate poisoning and in which all well-known therapeutic measures have been implemented with good outcome.

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ABSTRACT NUMBER: 068

POISONING WITH KREOZAN-CASE REPORT

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Introduction: Kreozan is potent pesticide with high toxicity from nitrofenol group with active liphopile metabolite2,4. Dinitriphenol is intensively camdium in yellow colour used for fruit pesticide. Water is added for transport safety and emulsionis intensively flourescent yellow colour. It has been used as loosing weight product in the USA but it has been withdrawn because of high toxicity. It has been forbiden in our country and in EU countries but it isstillbeing produced in BiH and they also sell it illegaly. Taken for suicidal purposes it leads to extreme metabolic speed and disturbing oxidative phosphorization it stops body to produce ATP and it realuses huge amounts of energy which causes extremly high body temperature. In short time reserve pats of energy and enzimic systems followed by body collaps. Fatal dosage is about 1g and there is no known antidote. Depending on momoent of seeing patient after taking it we can see tahinpnea, hypersalivation, hyperthermia, uncosciesness and yellow body colour.

Method: We used retrospective analysis of records of patients.

Case report: On 20.december 2017 at 13h23min we had a call from a Police department Krusevac that young person under custody was ill. In criminal departement at 13h27min we have found him lying down counsceous, anxious with large amount of white foam and saliva giving the imression of pulmonary edema. We could hardly hear him saying that he has taken something very strong. Officiers gave us information that he was sitting on the chair and talking normaly when suddenly he slide of the chair on the floor and started with drulling. Blood pressure was 120/80. Patient was known as heroin addict. Succesfuly cured in 2008. They gave us data that he has been tracked after getting out of the prison and with him was found package of heroin 5g with syringe and needle. Under suspition of intoxication he was taken to toxicology. During the transpirt he was anxious and confused, tahipnoic and solmolent. At the moment of taking him out of the ambulance on daylight we noticed yellow colour of palms and eyes with unconsciensousnes and respiratory failour. On addmition he was uncoscuous, respiratory failour

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with already started rigor mortis without the puls. Latter, family house searching found out supplies of kreozan and the obduction showed poisoning with above mentioned poison.
Discusion: Wide usage of pesticides in agriculture leads to significant male usage in suicidal causes of high mortality and this pesticide is first toxicity category and lackage of specific antidote and rarely described poisoning in literature gives us the point to pin point diagnostical, terapeutical and forcast importance of this very rare poisoning and also to pinpoint on non low regulation and illegal production and distribution and also the importance of education of population. It is very important early recognition of symptoms and calling emergency in order to save patient.
Keywords: Kreozan, poisoning, yellowness of the skin, rigor mortis.

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ABSTRACT NUMBER: 069

FATAL SEPSIS IN A PATIENT WITH RHEUMATOID ARTHRITIS TREATED WITH MTX

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Introduction: Methotrexate (MTX) is the commonest disease-modifying anti-rheumatic drug used in the treatment of rheumatoid arthritis (RA). It is prescribed as monotherapy and in combination with other DMARDs and biological agents. In MTX-treated RA patients, the prevalence of haematological toxicity, including leucopenia, thrombocytopenia, megaloblastic anaemia and pancytopenia, is estimated to be 3%. It is well recognized that the long-term morbidity and mortality for patients with RA is significantly increased. An important part of this increased risk is due to a higher rate of infection in patients with RA when compared with a healthy control population.
Case report: Patient R.B. (54Y) has been suffering from a highly evolving R.A since 2005. He was treated with combination of MTX, Sulfosalazine and corticosteroids. When in January 2018 he had right knee surgery, the urinary Foley catheter was placed and he has been suffering from urinary infection since. Last two week dysuria worsened accompanied by fever, but he hasn't gone to see the doctor. Due to the high fever, hypotension, syncope and exhaustion he was admitted to the internal medicine department with diagnosis: Hypotensio arterialis, Infectio tr.urinarium. Five days later, he was transfered into an intensive care unit (ICU) in severe general condition, disorientated, and confused, with generalized oedema, haemodynamically unstable on noradrenaline and dopamine drip, oliguric (500ml / 24h). Vital parameters were: TA 90 / 50mmHg, HR 150 / min, RR 28 / min, Spo2 90%, sinus tachycardia). Laboratory analysis: LE 0.85, ER 2.55, Hb 66, Hct 0.20, TR 8, urea 25.9, creatinine 417, K 5.3, procalcitonin> 200, glycaemia 5.3, INR 3.05, metabolic acidosis. Urinoculture: E. coli (ESBL type). Soon after admission to ICU, there was a worsening of the respiratory function due to which the patient was intubated and placed on mechanical ventilation (type BiPAP). In the course of further treatment, the patient received antibiotic therapy (amp. Meropenem) based on the last urinoculture, inotropic and vasoactive therapy, transfusion (wash erythrocytes No X, fresh frozen plasma No V, TR XXII doses), amp. Nivestim No III (cytokines- GCSF), tab. Folic, hemodialysis and other supportive therapy. In addition to the applied therapy, there is a further decrease in the total leukocyte count to 0.35, with an almost negligible increase in erythrocytes and thrombocytes, an increase in nitrogenous end products of metabolism as well as an impairment of liver function. Five days after admission to the ICU patient died.
Discussion: MTX was first developed as a folate antagonist inhibiting the proliferation of malignant cells through inhibition of synthesis of purines and pyrimidines. It was initially introduced in oncology for the treatment of childhood acute leukaemia. It is transported into cells by an active cellular uptake and an active efflux transporter. Once in the cell, MTX inhibits dihydrofolate reductase (DHFR), an enzyme responsible for the conversion of dihydrofolate (DHF) to tetrahydrofolate (THF). Consequently, there is a reduction in thymidylate and purine

biosynthesis. DNA synthesis eventually halts and cells can no longer replicate. Polyglutamination of this drug prolongs its intracellular presence and increase in polyglutamination results in increased risk of toxicity . Severe pancytopenia was defined as WBC <2.0 × 109/l, Hb <10 g/dl and platelet count <50 × 109/l. Pancytopenia, leukopenia, anemia, and thrombocytopenia can occur but are rare. In a review by Gutierrez-Urena and associates, clinically significant pancytopenia was found in 1% to 2% of RA patients on MTX therapy.There were no differences in MTX doses prescribed. Patients with severe pancytopenia were more likely to develop infectious diseases (31.6% versus 83.3%, p = 0.009) and sepsis (5.3% versus 75%, p < 0.001). Fatal outcomes were seen only in patients with severe pancytopenia. Myelosuppression occurred abruptly at any time during low-dose MTX therapy, but severe neutropenia was more often seen in the early-onset period of this therapy. Contrary to their expectations, disease severity was not dose-dependent in low-dose MTX therapy. We should keep in mind that the early detection of myelosuppression is a challenging task, even when monthly blood monitoring is adequately performed during low-dose MTX therapy.
Conclusion: This was a case report on patient suffering from RA on MTX and corticosteroid therapy with MTX adverse reactions which lead to advanced sepsis. Despite the application of all modern therapeutic procedures, a fatal outcome has occurred.

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ABSTRACT NUMBER: 070

THE FREQUENCY OF DEEP VEIN THROMBOSIS IN A UNIFIED EMERGENCY HOSPITAL ADMISSION

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Introduction: The estimate of the incidence of venous thrombosis in the Republic of Croatia is around 160/100 000 which assumes about 6500 new cases per year in the general population. This suggests that the problems of deep vein thrombosis (DVT) in Unifited Emergency Hospital admissions are frequent.
Aim: The aim of this paper is to show the frequency of DVT in patients examined in the Unified Emergency Hospital Reception in which DVT is suspected clinically.
Methods: A retrospective study was conducted. The sample of respondents included all patients admitted to the Clinic Hospital "Holly Spirit" in the period from 1.1.2017. until 31.3.2017 year in which clinical suspicion of DVT was established. The data is collected from the hospital information system. We analyzed the age and gender of patients, associated symptoms and final diagnosis.
Results: In emergency hospital admission for a period of three months has been viewed a total of 167 patients under clinical suspicion of DVT. In all patients an ultrasound examination of the veins was performed and in 48.5% there was a diagnosis of deep venous thrombosis, 44.9% had surface thrombophlebitis, and in 6.5% a diagnosis of cellulitis was made. The average age of the patients was 63 years, most of them women (59.2%). Of associated diseases, arterial hypertension (65.2%), diabetes (37.12%) and coronary disease (22.7%) were most commonly reported. In 19.7% of patients there was a recurrence of DVT
Conclusion: The conducted research showed that in almost half of patients with ultrasound diagnosis, clinically established suspicion of deep venous thrombosis was confirmed.
Keywords: deep vein thrombosis, unified emergency hospital admission, retrospective research
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ABSTRACT NUMBER: 071– INVITED LECTURE

LUNG ULTRASONOGRAPHY IN CRITICALLY ILL PATIENTS

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Patients with dyspnea routinely undergo physical examination, lung auscultation and chest X-ray. Auscultation and bedside roentgenogram characterize low sensitivity in critically ill patients. Chest X-ray images remain suboptimal in more than one-third of cases and poorly correlate with chest computer tomography images. Lung ultrasound is invaluable as a bedside diagnostic tool for patients with dyspnea since, in a few minutes, it may help to distinguish typical features of most common causes of dyspnea. Lungs are at the crossroads of ventilation and circulation and their visualisation can provide much diagnostic information. In the past, lung ultrasound was considered impossible. However, the interplay between air, fluid and pleurae creates distinctive artefacts. Combinations of these artefacts can help to differentiate between various pathological processes, including pulmonary oedema, pneumonia, pulmonary embolism, and pneumothorax. Earlier, lungs have been improperly considered to be poorly accessible for ultrasound, since air prevents propagation of the ultrasound beam and produces reverberation artifacts under the lung surface. This article reviews the basics of ultrasound visualization, normal and pathological findings on lung ultrasound, and emphasizes ultrasound utility in providing the emergency physician with a new, fast and reliable diagnostic tool.

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ABSTRACT NUMBER: 072– INVITED LECTURE

ACUTE CARE SURGERY FOR COMPLEX ABDOMINAL WALL DEFECTS

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Introduction: Complex abdominal wall defects often arise as emergencies and need prompt decision making. Therapeutical laparostomies, acute postoperative wound dehiscence and necrotizising phlegmona of the wall are well known events in modern surgery. Their main medical meaning is the structural and functional disintegration of the abdomen. Most important pathological feature is the lesion in the myofascial sheet. Acute abdominal wall defects recently become a significant medical problem by reason of a large-scale major surgical procedures and new approaches in critical abdominal conditions. Usually the sophisticated management result in increased morbidity, prolonged in hospital stay and huge medical costs. Source from recent knowledge and attempt for selection. The most challenging aim of the restoration of the acute complex abdominal wall defects is to consider the meaning of the procedure, to evaluate the timing of the closure and to choose the most suitable technique. For this purpose it is of essential significance to recognize the class of complexity of the defects, the grade of magnitude and to evaluate the patients' peculiarities. The class of complexity could be appropriate defined though local tissue inflammatory manifestation, presence of infection and localization. Lack of abdominal compartment and of covering tissue constantly determine highest class. The grade of the defect is close related to it with or extent of surface. *I*n this debate we should like to share our experience in the management of 72 consecutive cases of acute abdominal wall defects. There were 23 preformed laparotomies; 16 acute postoperative abdominal wound dehiscence; 24 nectrotizing fasciocellulitis; 5 acute wide muscular disruptions or abdominal wall haematomas; 4 acute defects after extended excision of the wall. As class 3rd to 4th were considered 63 of the damages. The dilemma of the best way. Temporary it seems that the majority of surgeons, who are involved and experienced in this sort of pathology approve primary abdominal wall repair versus partial closure ("planned abdominal hernia") in a presence of acute defect. However it takes need of stepwise multiple operations in the

predominating number of cases until the definitive procedure is feasible. In the observed by us cohort 66 of total 72 repairs were done by mean of primary repairs. Time from the appearance of the lesion until the complete operation amounts on 0 days in excisional defects and dehiscences, rises at 3.5 days on the average in laparostomies and abdominal wall haematomas, and reaches duration of 7.8 days in fasciitis. Reconstructive surgery could be carried out in different ways: 1. Tissue repair (simple fasciorhaphy, advancing or rotating myofascial flaps); 2. Prostetic substitution using either synthetic or biological meshes; 3. Combination of the said. The strategy and choice of the type of procedure is a matter of careful evaluation and consideration of the conditions (class and grade of the defect, patient status, surgeons' skills). Most frequently (17 cases) we employed fascioraphy utilizing advanced myofascial flaps or partial component separation technique. In 11 operations intraperitoneal mesh with fascioraphy was carried out, and in the 7 of total 9 lateral defects it was preperitoneal retromuscular prosthesis with flap's insertion. We determined an incidence of 28% of the common postoperative complications (seromas, wound infections and dehiscences). In 70% of the patients in follow up examinations very good results regardind stability of the abdominal wall and patients' quality of life were ascertained.

Conclusion: Surgery of the acute abdominal wall defects could be considered as a model of introducing strategy in critical urgent situation to keep control over the disorder and to select the most proper way to restore the body integrity. It needs best knowledge and experience and multidisciplinary approach to get the best possible way to a practicable aggregate protocol for evaluation and to treatment of the damage.

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ABSTRACT NUMBER: 073 – ORAL PRESENTATION

DISULFIRAM-LIKE REACTION INVOLVING NAPROKSEN

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Despite its success with compliant or supervised patients, disulfiram has been a controversial medication in the treatment of alcoholism. Several medications have been shown to cause disulfiram-like reactions in patients concomitantly exposed to ethanol, including specific antibiotics and nonsteroidal anti-inflammatory that possess a methylthiotetrazole substituent. There are few reports of disulfiram-like reactions with naproksen. This case report is the first to involve a male patient, and it describes a mild but likely disulfiram-like reaction manifesting as facial flushing in an 21 year-old male. 70 CL 5% Alcohol after the occurrence of headaches after drinking 550 ng naproxen is taken orally. 30 minutes after taking the medicine. He came to teh mergency department with agitation fear of death, widespread redness and tachycardia in the skin patch style. The Electrocardiography was Supravetricularytaschicardia. In the threatment of patients without a previously known disease substance and non-regular drug 500 cc Salin, 80MG Prednizolone, 45.5 mg/2 ml Feniramin maleat was given intraveneously. In the thisd hour of hospitaling patient's symptomes declined dramatically and his clinic recovered

This case suggests there is benefit in increased monitoring of patients receiving nonsteroidal anti-inflammatories along with alcohol-containing medications, and it demonstrates how disulfiram reactions can easily be misinterpreted as hypersensitivity reactions. Aside from just alcohol-naproksen interactions, this case underscores the need for general vigilance when using alcohol-containing drug preparations in c patients in an effort to prevent adverse effects and potential drug interactions.

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ABSTRACT NUMBER: 074

THE TRAUMA OF THE MIDDLE THIRD OF THE FACE

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Introduction: The etiology of fracture of middle part of the facial massive has changed in the last three decades and it continues to change. The trauma patterns differ regionally and particularly depend on age predomination. The fall is a predominant trauma factor in aging population, whereas on the other side, sport accidents and traffic traumatism occur more often in younger population. Trauma of the middle third of the facial massive regularly lead to lesions of the soft tissue, teeth and bones that present the structure of the jaws and skull. Not seldom, these lesions of the middle third of the face interfere with injuries of other parts of the body. If patients with middle facial fractures are not under the adequate treatment, secondary sequels may happen as late consequences, such as scarring, bone deformities or even sight loss. Successful treatment and rehabilitation of patients with lesions of middle facial massive require knowledge in anatomy, fracture patterns of this area and techniques of osteosynthesis. In addition, the specific skills in area of occlusion, physiology of the eye and surgical approach to the anterior base skull are required.

The aim: To review all etiological causes of fracture of the middle third of the face, to determine the most common fracture patterns, demographic and social status of the injured and their total participation in craniofacial trauma.

Matherial and methods: The patients that were treated in Emergency Center at Clinical Center of Serbia (Center for Medical Emergencies and Neurotrauma) from January 1st to December 31st 2017. were used as a material. After reviewing the diagnostic procedures upon admission and after surgical treatment, including operating lists and patient's medical history, the descriptive statistical method is used for evaluation of patients and the results obtained from the sample.

Results: Injuries of the lateral part of the midface (64.75%) occur more often than in central part, and more frequently in male population. The peak of the trauma is usually seen in the second and third decade of life. Traffic accidents occur more often (89.4%) than sport accidents (3.25%). Cranial nerves disorders are discovered in 43% of our patients. The most common disorders are infraorbital nerve sensibility disorders and then lesions of the nerves of the face. Fractures of the middle facial massive need to be treated in the first two weeks. After that, the beginning of absorption of the bones on the fragments' surfaces, during the calus formation, lead to difficulties in achieving anatomical position. After the 2 weeks interval, the treatment is considered as postponed and is based on a secondary posttraumatic treatment principle. The primary care for these kind of fractures needs to be done as soon as the general medical condition of the patient allows surgical treatment. The limiting factor for immediate treatment of the fracture is the fracture itself, but also the general condition of the patient.Relying on the gravity and type of the fracture, the base of the successful treatment of the fracture of the middle third of the face is restoration of the supportive pillar of the midface, bone prominences, bone cavities (ex. the orbit) and the precise occlusion. The goal of the definitive surgical treatment is the correct three-dimensional reconstruction of the skeletal structures, to restore the face appearance within its original width, height and sagittal projection.

Conclusion: The discontinuity of the midface massive represents a serious medical issue, concerning its complexity, as well as the incidence and their socioeconomic influence. The interdisciplinary approach and the modern diagnostic and surgical techniques give the favorable results in most cases. Traffic accidents are the main cause and men in the thirties are mostly affected. The algorithms of the treatment of nasal bone, maxillar and zygomatic fractures are broadly consistent, while the treatment of frontal sinus and orbital wall fractures are still the subject of current debates.

Keywords: middle face massive, osteosynthesis, facial fractures

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ABSTRACT NUMBER: 075

THE COMMINUTIVE FRACTURES OF THE MIDDLE THIRD OF THE FACE

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Introduction: In case of the high-energy injury of the face followed with injury of bone structures, the soft tissue injuries are not necessarily detectable immediately. These soft tissues injuries may result in loss of subcutaneous fat tissue caused by fibrosis of dermis, which later enables the skin expansion in attempt to correct the posttraumatic deformities. At the same time, the thinned skin makes all irregularities of the skeleton even more visible, particularly in frontal bone and temporal pit area. Although the classification Le Fort can still be used in these circumstances, it is usually applied only to mark the highest level of fracture and the most severe fracture of one side of the face, but it does not include the level of comminution.

The aim: To review the etiological causes of fracture in the middle third of the face, to determine the most common fracture patterns, demographic and social status of injured and their total participation in craniofacial trauma.

Material and methods: The patients that were treated in Emergency Center at Clinical Center of Serbia (Center for Medical Emergencies and Neurotrauma) from January 1st to December 31st 2017. were used as a material. After reviewing the diagnostic procedures upon admission and after surgical treatment, including operating lists and patient's medical history, the descriptive statistical method is used for evaluation of patients and the results obtained from the sample.

The traditional methods of the treatment of comminution of the middle face massive are based on the direct fixation of fractures, applied next to the fracture fissure. The fractured midface skeleton is compressed between the healthy bone from the top and the mandible beneath. The direct skeletal fixation is limited to a wire ligature of bigger bone fragments, particularly to infraorbital edge and frontozygomatic suture. The occlusion and the position of infraorbital edges determine the face depth. The height of the face is determined by the degree in which the middle third of the face can be compressed between the mandible and the skull base, whereby the infraorbital edges present the additional referring point. The width of the face cannot be evaluated directly.

Results: Approximately 62% of the patients with fractures of facial bones had associated injury of the head – higher stroke energy increases the possibility for a closed head injury. The results indicate that 36% of the patients with high-energy facial fractures obtain at the same time the life-threatening brain injuries. Therefore, the early surgical treatment in certain patients

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presents a higher risk of further cerebral injury or death. In patients with high-energy injuries of the middle third of the face, the ideal definitive treatment needs to be performed during the first 5 to 7 days of the injury, even though it can be postponed for 2 weeks, without compromising the final result. The early treatment, precisely within the 12-48 hours after the injury, can be performed using modern techniques in carefully selected and adequate evaluated patients. These methods may give the satisfying results when the comminution degree of the middle third of the face is moderate and the bone fragments are large (which is seen in low-energy injuries). In severe comminution of the middle third of the face, it is difficult to control the height, the width and the depth of the face. The thorough analysis of the late results may show the compression and the widening of the face. If the circumzygomatic suspensions are used, the towing is performed backwards and may result in maxillar dislocation in same direction. If the restoration of pretraumatic facial dimensions is inadequate, by fixation using micro-plates and micro-screws or using wire ligatures, and can neither control the late towing of mastication muscles, nor the contracture of the soft tissue above them. Thus, for example, the traction of muscle masseter on zygomatic bone often leads to severe orbital dystopia, followed by increased volume and enophtalmus. The results after the surgery are permanent.

Conclusion: The treatment of airway is the primary measure in patients that suffered the high-energy injuries. Patients with associated head injuries, particularly unconscious, need to be intubated within the initial treatment. Severe midface injuries lead to significant anatomical disturbances, so the intubation can be difficult to perform if a patient actively bleeds. In emergency situations, where the airway is endangered and the intubation is impossible, the tracheotomy is performed without any delay. In cases of severe comminution of the middle third of the face, the early elective tracheotomy is indicated, and the dramatic facial edema is expected within the first 48 hours, but it also significantly simplifies the final surgical treatment

Keywords: comminutive fracture, middle face massive, urgent tracheotomy

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ABSTRACT NUMBER: 076 – ORAL PRESENTATION

MEDIC TRAINING AT THE DEPARTMENT OF OPERATIONAL MEDICINE, MEDICAL SCHOOL, UNIVERSITY OF PÉCS

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Introduction: The Department of Operational Medicine was founded at the Medial School, University of Pécs in 2013. The department has 3 groups, Migration Health, Medical Humanities and Military Medicine, Disaster Medicine and Law Enforcement Medicine. One of our most important roles is the organisation of health care and medical trainings for Hungarian law enforcement organisations in cooperation with national governmental partners. Our projects include the Police Medic (PM, since 2014), the Disaster Medic (DM, since 2015) and the Prison Medic (PrM, since 2016) programmes.

Methods: for the several law enforcement groups we have developed a special medical training structure, which helps to achieve a safer and more effective operation of law enforcement groups. This multi-level programme (provider, medic and instructor) includes basic and tactical first aid, triage, evacuation, occupational health and safety, disaster management and communication. The fluency of emergency care provided between the medics and the National Ambulance Service of Hungary was a pivotal aspect during the development of the programmes, therefore, we took into consideration the standard operating procedures of the Ambulance Service. It is also relevant that the instructors are selected, qualified medics; this makes our structure largely, self-supporting.

Results: PM program: we have medics throughout the whole country, they have regular equipment, which can they use during their work. All three levels are working within the DM programme and regular equipment is available on some fire-engines. In the PrM programme, we have had six basic trainings and one level-two training.
Discussion: our programs are extraordinary, as previously, there were no such multi-layered, modular, medical training systems for the law-enforcement groups in Hungary.
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ABSTRACT NUMBER: 077

HYPERTENSIVE CRISIS – CASE REPORT

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Introduction: Hypertensive crisis is an enormous blood pressure increase whose value exceeds 180 mmHg of systolic and 120 mmHg of diastolic blood pressure, while malignant hypertension is considered as pressure values: systolic is greater than 220 mmHg and diastolic is greater than 130 mmHg. The consequences of a hypertensive crisis are manifested in the organs leading to lethal outcomes if the patient is not adequately cared for. We differentiate between an urgent and emergency hypertensive crisis whose differences do not lie in pressure values but in the speed of their growth. In Emergency ambulant, the largest number of patients are patients who are suffering from hypertension or (anamnestic) healthy people with a sudden blood pressure rise.
The aim of the research was to determine the significance and frequency of hypertensive crisis as one of the most advanced cardiovascular diseases among different populations, as well as the importance of immediate care for these patients.
Material and methods: Data taken from the patient protocols in emergency service in Podgorica
Case report: Patient aged 42, arrives at the HMP ambulatory with severe chest pain, headache, accompanied by confusion and blurred vision, nausea and vomiting, severe anxiety and shortness of breath. She says she is taking monopril plus 10 mg but has not recently used antihypertensive therapy. She have a positive familiary anamnesis for cardiovascular disease.
In physical examination we find: Patient was tachypnoic, tachycardic, poorly communicative, slightly agitated. TA 200/110 mmHg. . ECG: sinus tachycardia. Heart rate, 120 beats per minute. SAT O2 93%. Otherwise her other physical exam was unmarkable. Therapy: presolol amp NI in 100 ml NaCl, zorkaptil 12.5 mg p.o. After observation of the patient at one hour interval, TA 180/110 mmHg was measured. ECG sinus rhythm, fr 110 / min, without distortion of the ST segment. In further therapy: zorkaptil 12.5 mg, lasix amp NI i.v. After another hour the value of TA is 170/100 mmHg. ECG: Sinus rhythm, fr 90 min, without distortion of the ST segment. SAT O2 95%. We give another zorkaptil 12.5 mg , and after that the blood pressure was TA 160/90 mmHg in the third hour of opservation. ECG sinus rhythm, fr 80 / min, without disturbance of the ST segment. SAT O2 97%. The patient feels better after the therapy. Patients are referred to further diagnostics and adequate therapies to internist.
Conclusion: Recognizing a hypertensive crisis and appropriate care reduces the risk of cardiovascular events. It is also important to reduce the high values of blood pressure taking into account the time interval within which the aim is to achieve the appropriate valuable pressure without damaging the cerebral perfusion.
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ABSTRACT NUMBER: 078 – AWARDED PRESENTATION

MENINGOENCEPHALITIS - A CASE REPORT

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Introduction: Meningoencephalitis is inflammation of the meninges (the tissue which covers the brain and spinal cord) and brain tissue. If not recognized at the time, there is a high mortality rate.

The purpose of the work: Highlights the seriousness of the disease and the importance of recognizing the clinical picture, the importance of urgent initial treatment, diagnostics and timely care in the appropriate facility.

Material and methods: A case report of a patient based on a medical protocol. Data source: Medical protocol UC KCCG.

Case Report: A patient aged 26 years, a man, accompanied by an Emergency team due to general weakness, disorientation and vomiting. The patient is suffering from diabetes (he use insulin pump). Heteroanamnestic data : We found that the problems occurred in the same morning, from full health, in the form of vomiting (more than 10 times in one hour), disorientation, abundant sweating. In physical exam we find: Altered mental status in form of irritability ,disorientated, does not cooperate in examination, tachycardic, subfebrile (37.6 C), tachypnoic. The skin is pale, sprayed with sweat . Heart rate, 120 beats per minute. TA 100/60 mmHg. ECG: sinus rhythm, fr 120 / min, without change to ST segment. Pulmo: Over the lungs is normal breathing sound. SAT 92%. Fast glycemic test is 7.2 mmol / l. In neurological examination we find: He had a stiff neck, but other meningeal signs are insensitive for diagnosis of meningitis. The examination reveals no focal neurologic deficits. We taken KKS, biochemistry, PAS urine, ABB status, CT endocranium. Results of the findings: pCO2 4.3 kPa, pO2 92.4%, ionised Ca 1.06 mmol / l, glycemia 12.1 mmol / l, lactate 2.3 mmol / l. Other laboratory findings are in reference valuese . CT endocranium is whithout patologycal signs.

During the patient's observation, the general condition is worsening. It has photophobia, headache, severe vomiting, dysarthria. In the further course there is psychomotor agitation and mental confusion, then generalized convulsions are formed.Temperature is 39,6 C. Therapy: We tried to sedate a patient with Diasepam 10 mg i.v, Flormidal 15 mg i.v: no effect was achieved. We called anesthesiology team. Given in further therapy: Flormidal amp 1 + 0.5 + 0.5 + 0.5 + 0.5 iv. bolus in shorter time intervals. The patient was introduced into the sedation for 15 minutes, after which the state of agitation again occurred. Therapy continued: flormidal amp N I in 100 ml NaCl, flormidal amp N I i bolus, phenobarbitone N IV, Actrapid 5 i.j s.c. After successful sedation, LP was made. Cytochemical examination of CST: Turbid, glucose 6 mmol / l (hight), leukocytes 10 (hight) . Patient hospitalized in an infectious clinic with a basic suspicion of meningoencephalitis, which was further proven.

Conclusion: Adequate diagnosis in this patient instructed us that it was an infectious process that, thanks to timely treatment, increased the patient's survival chance.

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ABSTRACT NUMBER: 079

LAPAROSCOPIC SURGERY – THE PLACE AND ROLE IN EMERGENCY SURGERY

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Introduction: The emergency approach to the abdomen may be possible using laparoscopic approach: as diagnostic laparoscopy, surgery through laparoscopy or laparotomy oriented towards finding of the laparoscopy. The laparoscopic approach in emergency in cases of acute abdomen takes a significant place due to its fast approach and evaluation of the condition by visualization using camera. The advantages and disadvantages of laparoscopy compared to the open surgery in emergencies are difficult to analyze, concerning many factors that affect both ways, and that the laparoscopy request above all the training and the experience of the surgeon for this type of surgery, as well as the differences in procedures and possibilities of modern diagnostics. General contraindications refer to the condition of hemodynamic instability of the patient and to the severe patients (ASA IV). In absence of any specific contraindications for a specific laparoscopic procedure, many abdominal diseases that request urgent surgery may be performed with laparoscopic approach. The most frequent indications are appendicitis, acute cholecystitis, gastroduodenal perforation, occlusion of the small bowel and some abdominal trauma.

Aim: To review etiological causes of acute conditions and their prevalence, the incidence of laparoscopic approach compared to open surgery in acute abdominal conditions treatment.

Methods: The patients that were treated in Emergency Center, Clinic for Emergency Surgery at Clinical Center of Serbia, from January 1st to December 31st 2017. were used as a material. After reviewing the diagnostic procedures upon admission and after surgical treatment, including operating lists and patient's medical history, the descriptive statistical method is used for evaluation of patients and the results obtained from the sample.

Results: Every acute condition in abdomen often presents a diagnostic challenge for a general surgeon. The process of finding and setting the correct diagnosis is important for different pathological conditions that may be responsible for acute condition and it certainly influence the planning the right abdominal incision or avoiding the unnecessary laparotomy. The use of non-invasive diagnostic methods needs to be applied, such as ultrasound or MSCT, or even in some cases native radiography only. In some cases, the mentioned diagnostic procedures were not possible to conduct or sometimes were incorrect, due to physical limits of the patient, such as obesity or massive bowel distension, or partially due to the skills of the examiner. The other factor that appears is that the age limit increased and the great number of patients suffering from urgent abdominal conditions had associated comorbidites that complicate the therapeutic strategy, but also diagnostic approach, increasing the possibility for bigger consequences. Therefore, therapeutically, laparoscopic surgery takes place in diagnostics but also as the modality of surgical treatment of acute conditions in one act. Our experiences and the results show that due to the pathology of the patients, their age, associated comorbidities, the laparoscopic approach has its justified therapeutic place.

Conclusion: With the right selection of patients and appropriate experience of the surgeon, the results are even better than in open surgery (less wound infection, complications, hospitalization duration and postoperative pain). The detailed explanation of basic aspects of surgical technique in most frequent procedures of urgent laparoscopy is enclosed.

Keywords: guided laparoscopy, perforation, appendicitis, bowel obstruction, abdominal trauma

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ABSTRACT NUMBER: 080

THE MULTIDISCIPLINARY APPROACH IN SEVERE POLYTRAUMA PATIENTS AT EMERGENCY CENTER BELGRADE

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Introduction: Despite great progress in modern treatment for politrauma patients, trauma is still a major clinical challenge with the high mortality rate
Methods: This is the retrospective study of 55 polytrauma patients with severe abdominal trauma and associated organs injuries which required at Clinic for Emergency Surgery, Belgrade. The including criteria for this study was Injury Severity Score greater than 22 (ISS>22). Acute Physiology and Chronic Health Evaluation (APACHE II) score calculated within the first 24 hours of ICU admission. Patients underwent emergency surgical principles with Primary surgical reparation, Damage Source Controle (DSC) and intensive care treatment. The outcome was analysed in terms of mortality and morbidity. Data were analyzed by Statistical Package for the Social Sciences
Results: Average age of patients was 38.6±18.1 years, the majority were male (40 patients, 72.7%). The most common was traffic traumatism in 30 (54.5%). Associated thoracic injuries were recorded in 43(78.2%), followed by 23(41.8%) patients with orthopedic trauma and severe craniomaxillofacial injuries in 9 patients (16.4%). Liver was the most frequently injured abdominal organ in 24 (43.6%) patients. Small intestine was the most frequently injured abdominal hollow organ in 8 (14.5%) patients. Damage Source Controle (DSC) was performed in 14 (25.5%) patients. Intensive care unit (ICU) stay was 9.36±11.54 days. Overall hospitalization lasted an average 14.30 ± 16.02 days. The morbidity rate was 29 (52.7%). The mortality was 13 (23.6%). APACHE II score in survivals were 18.02±2.769 while in patients who died APACHE II was 25.32±4.52 (p=0.001). High ISS and APACHE II scores, massive hemorrhage and massive blood transfusions, were statistically higher in non-survivors.
Discussion: The aim of this study was to analyze the outcome of polytrauma patients in regard of trauma degree, complexity of injury, patients status on admission and multidisciplinary approach that was applied.Severity of trauma, hemorrhage and massive blood transfusions are predictors of survival in polytrauma patients. Considering the complexity of the polytrauma patients with impressive hemorrhage and major organs destructions due to the high trauma energy, the imperative for clinicians is emergency evaluation of the traumatized. It is necessary to continue searching for the best multidisciplinary approach in life-threatening trauma patients
Keywords: polytrauma, emergency surgery Injury, severity score\
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ABSTRACT NUMBER: 081– INVITED LECTURE

LESS OBVIOUS SEVERE CHILD INJURES

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Trauma is leading cause of death of children older than 1 year, adolescents and young adults, up to 35 years of age. Almost 25% of trauma patients are children. Nearly million deaths of the children in the world every year is related to trauma. Moreover, millions of children suffer of permanent consequences of trauma, loss of function and disability. Thus, recognizing and

treating injuries in children is of great importance. Some injuries are obvious on initial survey, but some severe injuries may not be so obvious and may be difficult to recognize. Epidural hematoma has a lucid interval after initial loss of consciousness, which on the other hand may be very short, un-witnessed or unobtainable. If primary survey falls in to lucid interval, without data on consciousness loss, cranial injury may not be suspected, and potentially dangerous delay in diagnosis can be made. Loss of consciousness requires X-ray and if fracture of the skull is demonstrated, further examinations using CT scans are justified. Lung contusions are not uncommon in high energy trauma, especially in children injured as pedestrians, and may occur in about 45% of injured. In children with lung contusion rib fractures are rare, because of great elasticity of the children's thorax. Lungs with contusion are more susceptible to barotrauma if mechanic ventilation is needed, ventilatory related pneumonia are more frequent, and 25% of children develop acute respiratory distress syndrome (ARDS). In one recent massive traffic accidents 6 of the 8 injured children had lung contusions. Although lung contusions may be visualized of plain chest X-rays, CT scans are much more informative. Fractures of the vertebras as well as stable pelvic fractures may be initially difficult to observe, even on plain X-rays, and best imaging method remains CT scan. Most common site of initially unrecognized injuries is abdomen. Major hepatic and spleen injuries may be suspected if abdominal tenderness and/or guarding exist especially in hemodinamically unstable patients. But, large intracapsular hematoma may be cause of severe secondary bleeding, with scarce initial clinical findings. Pancreas injuries usually occur in children after falls of bicycle. If bicycle handle bar mark is visible in epigastrium or subcostal pancreas injury may be strongly suspected and transport to adequate hospital is necessary. Isolated renal injuries may occur after back falls on the edge of stairs. Even micro-hematuria raises suspicion on renal injury. Urinary bladder is usually protected with bony pelvis. But if it is filled with urine, it may rise up to the umbilicus and become exposed to direct blunt trauma. Abdominal tenderness, accompanied with intra-abdominal free fluid but without signs of severe hemorrhage is suggestive on intra-abdominal rupture of urinary bladder.

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ABSTRACT NUMBER: 082

THE NEED FOR CT IMAGING IN ELDERLY POPULATION IN A UNIVERSITY HOSPITAL EMERGENCY UNIT

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Introduction: This study aimed to make the distribution of CT imaging according to organ systems in elderly emergent patients that admitted to University Hospital Emergency Radiology Unit.

Materials and methods: The study designed as the retrospective investigation. 697 elderly patient over 65 years admitted to emergency radiology unit during the last three month that followed by computed tomography (CT) imaging modality was studied.

Results: 390 patients were female, and 335 patients were male. In 33 patient thorax CT and abdomen CT has studied together in multiple trauma patients. In 413 head CT was taken for ischemic and nonischemic pathologies. In 81 abdominal CT has studied alone for abdominal emergencies like cholecystitis, pancreatitis, renal calculi, etc. In 8 orbital CT, in 17 extremities CT and in 53 head CT and cervical CT together were done for trauma. In 25 head CT angiography was done for evaluating ischemia. In 14 thorax CT have studied for parenchymal infiltrations whom clinic and laboratory tests were positive. In 44 pulmonary artery CT angiography was done who had positive findings in pulmonary artery embolus clinics and laboratory tests. In 4 aorta CT angiography was done for suspicion of an aneurysm and rupture. In 5 femoral artery CT angiography was done for detection of traumatic injury.

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Conclusion: When the reasons for referral to emergency radiology CT unit of elderly patients were examined. The first three most common causes in our center were cerebrovascular and abdomen problems, trauma. Elderly patients admitted to emergency departments requires a comprehensive imaging approach for diagnosis.
Key words: Elderly, Emergency, CT

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ABSTRACT NUMBER: 083

THE NEED FOR CT IMAGING IN PEDIATRIC POPULATION IN A UNIVERSITY HOSPITAL EMERGENCY UNIT

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Introduction: This study aimed to make the distribution of CT imaging according to organ systems in pediatric emergent patients that admitted to University Hospital Emergency Radiology Unit.
Materials and methods: The study designed as the retrospective investigation. 256 pediatric patient between 0 and 18 years old admitted to emergency radiology unit during the last three month that followed by computed tomography (CT) imaging modality was studied.
Results: 87 patients were female, and 169 patients were male. In 32 patient thorax and abdomen CT has studied together for multiple trauma. In 106 head CT was taken for traumatic pathologies. In 34 abdominal CT has studied alone for abdominal emergencies like appendicitis, renal calculi, etc. In 9 orbital CT, in 4 vertebral column CT, in 2 temporal CT, in 13 extremities CT and in 110 head and cervical CT together were done for trauma. In 6 patient head CT with contrast administration was done for suspicion of an intracranial mass. In 10 thorax CT have studied for parenchymal infiltrations whom clinic and laboratory tests were positive. In 1 femoral artery CT angiography was done for detection of traumatic injury.
Conclusion: When the reasons for referral to emergency radiology CT unit of pediatric patients were examined, the most common causes in our center were trauma and abdomen problems.
Keywords: Pediatric, Emergency, CT

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ABSTRACT NUMBER: 084 – ORAL PRESENTATION

IVC ULTRASOUND

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Introduction: The primary utility of bedside ultrasound of the IVC has an important role, particularly in cases of undifferentiated hypotension or other scenarios of abnormal volume states, such as sepsis, dehydration, hemorrhage, or heart failure. Changes in volume status will be reflected in sonographic evaluation of the IVC. The combination of the absolute diameter of the IVC and the degree of collapse with respiration may show the dynamic changes in volume status of the patient.
In physiologic state, vessel contracts and expands with each respirationInspiration causes a negative pressure in thorax and increases venous return to the heart which results with collapse of the IVC. Exhalation decreases venous return and the IVC returns to its baseline diameter.
Volume status can be predicted with caval index measurement.Caval index: IVC expiratory diameter – IVC inspiratory diameter/ IVC expiratory diameter × 100 = caval index (%). If the result is close to 100%, that indicates an almost complete collapse (and volume depletion as

well), while the result is close to 0%, that suggests minimal collapse (i.e., likely volume overload).

Performing the Ultrasound

Positioningand probe selection:

Patient sould lie on the bed in supine position and elevation level of the head of the bed does not make a significant difference in measurement. A low-frequency probe, such as a phased array or curvilinear probe (3.5-5 MHz), should be selected.

Landmarks: Two approaches may be used. Herein, we are going to discuss the subxiphoid view. The subxiphoid view of the heartwe could get by placing the probe on the patient's abdomen just below the xiphoid bone with the marker facing to the right of the patient. Once an appropriate subxiphoid view of the heart is obtained, the probe is rotated 90 degree untill the marker indicates the head of the patient. At this point, the longitudinal view of the IVC should be visualized as it enters the right atrium.

Measurements: The diameter of the IVC should be measured 2 cm from where it enters the right atrium. Additionally, M- mode should be used to visualize respiratory variation, at this point, the beam overlying the IVC 2 cm from the right atrium. Then inspiratory and expiratory diameter can be measured on the M-mode image, at the smallest and largest locations.

Findings: Volume depletion. The diameter of the IVC will be decreased and the percentage collapse will be greater than 50%. Volume overload. The IVC diameter will be measured larger and minimal collapse on inspiration can be seen.

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ABSTRACTS: NURSES

ABSTRACT NUMBER: 001

EMERGENCY DEPARTMENT TRIAGE – A NURSE'S EVERYDAY CHALLENGE

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Introduction: Emergency care is one of the most sensitive areas of health care. This sensitivity is commonly based on a combination of factors such as urgency and crowding, As an entry point to the health care system, the emergency department (ED) serves a critical role.

The volume of admissions to a ED cannot be predicted. But, only a certain proportion of the patients have life-endangering or medically urgent conditions

Data source and the choice of material: Retrospective analysis of the literature

Results of the synthesis: Researchers from the University of Maryland, School of Medicine (UMSOM) analyzed publicly available data between 1996 and 2010 from several national healthcare databases and determined that ERs contributed an average of 47.7% of the medical care delivered in the U.S. This percentage increased steadily over the 14-year study period. Overcrowding is one of the most important problems facing emergency departments (EDs) in many developed countries. The approaches to reducing waiting times, improving flow, and expediting disposition decisions have been a challenge for many emergency care providers and administrators; however, the multidimensional nature of ED overcrowding has made it difficult to design interventions that cover its multiple stressors. Mainly used triage scales worldwide are: The Ipswich Triage Scale, Manchester Triage Scale, Australasian Triage Scale, Canadian Triage and Acuity Scale, Emergency Severity Index, and some less used scales, such as Gruppo Formazione Triage System in Italy, the Taiwan Triage Scale, the Cape Triage Scale, Geneva Emergency Triage Scale. Emergency nursing is a demanding job and can be unpredictable. Emergency nurses need to have basic knowledge of most specialty areas, to be able to work

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under pressure, communicate effectively with many types of patients, collaborate with a variety of health care providers and prioritize the tasks that must be performed.
Conclusion: It can be quite draining both physically and mentally for many nurses. They spend much of their time on their feet and ready for unexpected changes in patients' conditions as well as sudden influxes of patients to the emergency department. ED (emergency department) nurses may be exposed to traumatic situations such as heavy bleeding, dismemberment and even death.The triage nurse must have well -developed personal traits, cognitive characteristics, behavioral characteristics, expert assessment, critical thinking, clinical judgment, prioritization skills. But, General nursing education does not adequately prepare the Emergency Nurse for the complexities of the triage nurse role. Therefore, nursing education has to answer many questions, preparing nurses for the emerging challenges in their work, which is increasingly demanding, both in terms of number and complexity of the patient needs.
Keywords: Triage, Emergency Department, nurse, education

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ABSTRACT NUMBER 002

TEAM WORK-KEY FOR GOOD TRAUMA OUTCOMES

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Introduction: The need for teamwork and communication in the process of rescue of victims in traffic accident, and their roles are closely linked, with the common significant purposes of improving patient safety, reducing clinical errors, and reducing waiting times.
Case report: On 02.04.2017, the EMS team receives call of first priority because of traffic accident. Call was received at 15:17, dispatched in the same minute and team was at the scene at 15:24. After the arrival of the EMS team, we have found overturned trailer and a trapped driver in it. The first bystanders were the gendarme team who accidently come on scene. They call EMS In addition to the summoned call; the gendarmerie provided an emergency, halted traffic and began the process of releasing a driver who was trapped in a truck. It soon becomes clear that it is impossible to rid the driver without the help of firefighters who are called and arrive instead of the accident in 10 minute. Before starting the extraction of the patient, the patient got cervical collar, iv line and analgesia. In common with the respect of the principle of PHTLS, the patient was released from the trailer in 30 min. During transport, maintain breathing, immobilization and administered fluid were provided.
Discussion: We believe that none of the services that participated in the rescue of the victims alone are unable to do what is best for the victim. Only joint work, good communication and well-divided and clearly assigned tasks can achieve the maximum in patient safety and treatment.
Keywords: accident, team work, trauma

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ABSTRACT NUMBER: 003

RICIN POISONING-CASE REPORT

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Introduction: Ricin is a poison found naturally in castor beans. If castor beans are chewed and swallowed, the released ricin can cause injury. The seed of ricinus plant, Ricinus communis, is toxic to humans, animals and insects. The main toxic protein is ricin, potent cytotoxin or poor hemagglutinin. For the lethal outcome of adults, only milligram of ricin is sufficient. Poisoning may occur after inhalation, swallowing, or injection of poison. Initial symptoms of ricin

poisoning by inhalation may occur as early as 4- 8 hours and as late as 24 hours after exposure. Following ingestion of ricin, initial symptoms typically occur in less than 10 hours. Symptomatic ricin poisoning is treated by giving victims supportive medical care to minimize the effects of the poisoning. The types of supportive medical care would depend on several factors, such as the route by which victims were poisoned (that is, whether poisoning was by inhalation, ingestion, or skin or eye exposure). Care could include such measures as helping victims breathe, giving them intravenous fluids, giving them medications to treat conditions such as seizure and low blood pressure, flushing their stomachs with activated charcoal (if the ricin has been very recently ingested), or washing out their eyes with water if their eyes are irritated.

Case report: The patient is admitted for stomach pain and vomiting. He states that he took the ricin himself (without suicidal tendencies), a few grains of ricine a four hours ago, because it is grown in home conditions, since he has a opstipation problem for years. After basic diagnostic treatment, the patient is sent for opservation while waiting for laboratory tests.ECG and radiography shoved normal results. During the observation a nasogastric probe was installed, performed a lavage of the stomach through the probe. The patient's condition (vomiting, diarhhoea) is dramatically worsening in the second hour, after which the rehydration is intensified. After that, the patient is referred to the internal department, - intensive care unit. Intensive rehydration continued. Laboratory tests were unspecified. The patient is after all diagnostic and therapeutic treatment send to Toxicology Ward on Military Medical Academy in Belgrade

Discussion: Symptomatic and supportive treatments are available for ricin poisoning, but there is no commonly available antidote for ricin available. Existing treatments emphasize minimizing the effects of the poison. Possible treatments include intravenous fluids or electrolytes, airway management, assisted ventilation, or giving medications to remedy seizures and low blood pressure. If the ricin has been ingested recently, the stomach can be flushed by ingesting activated charcoal or by performing gastric lavage. Survivors often develop long-term organ damage. Ricin causes severe diarrhea and vomiting, and victims can die of circulatory shock or organ failure; inhaled ricin can cause fatal pulmonary edema or respiratory failure. Death typically occurs within 3–5 days of exposure.

Keywords: ricin, emergency department, poisoning, tratment

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ABSTRACT NUMBER: 004

ATYPICAL MANIFESTATION OF ACUTE MYOCARDIAL INFARCTION-CASE REPORT

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Introduction: The symptomatology of myocardial infarction, including both patients wih pain and non-pain symptoms, may be affected by traditional risk factors, such as hypertension, obesity, smoking, diabetes, hypercholesterolaemia or other risk fators... The extent of infarcted myocardium, probably through a number of stimulated afferents nerves, may also influence presentation of symptoms, typical or atypical

Case: Middle-aged women have been admitted to an emergency center for high back pain (in the thoracal area) that last several hours back. She had similar pains in the past few days, but not as strong as now. She then contacted a general practitioner when her analgesic therapy was administered (Diclofen, Bensedin, Dexason). As the pain recurred in the morning, when she came to work, she came to the emergency room accompanied by her colleague, who says she is doing a lot of physical work (she works as a cleaner) and is already taking medication for back pain.

Objective examination establishes that blood pressure is elevated 160/95, heart: slightly lower tones, lungs: normal breathing noise, abdomen: soft, without resistance, peristalsis hearing. The peripheral pulses are symmetrically present on the arms and legs.

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The ECG shows the negative t waves in D1, aVL and the assigned t wave in V6. Since we do not have previous ECG findings, we decide to apply conventional therapy for acute coronary syndrome (IV line, nitroglycerin spray, Aspirin 300mg, enoxaparin 0.3ml iv, clopidogrel 300mg, Controloc) while waiting for troponin findings as reliable and fast markers of myocardial necrosis. After 20 minutes, troponin comes with a value of 1.04. The patient is referred with the diagnosis of a high lateral infarction to the internal ward for an pPCI.

Conclusion: the atypical presentation of the disease is a constant danger, especially in the emergency services. Good diagnostic capabilities, quality and targeted staff training, experience and caution in work reduce the possibility of a mistake to a minimum. Also, unclear and atypical cases emphasize the need forby observing patients in order to prevent unwanted events.

Keywords: myocardian infarction, atypical presentation, opservation

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ABSTRACT NUMBER: 005

CAN WE DO IT BETTER?

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Introduction: Nursing bedside report allows both the oncoming and outgoing nurses to assess the patients, examine for any patient safety errors, and allows the patients to be a part of their plan of care. Often bedside reporting might be the first time the oncoming nurse will have a chance to meet the patient depending on the nurse's patient load and patient acuity. Staffing often can be a challenge for many healthcare organizations. Bedside report allows the patient to communicate with both of the nurses, one leaving and one starting their shift. In the health area, ineffective communication figures among the root causes of more than 70% of the care errors.

Data source and the choice of material: Retrospective analysis of the literature

Results of the synthesis: Often, shift change is a chaotic period. Shift handover is a common tradition among nurses; however, standard and effective handover and information communication skills are not taught formally during nursing academic education; rather, nurses learn such skills during their daily practice and form more experienced nurses. Evidence shows that ineffective shift handover increases the risk of medication error and sentinel events, delays the course of treatment, decreases patient satisfaction, and prolongs the length of hospital stay. Effective information communication is so much important that in 2005 the American Committee of Safety referred to the standardization of information communication process in health care system as the second national goal of safety. This goal emphasized the communication of up-to-date and credible information that minimally disrupts the shift handover process. The lack of an integrated handover protocol in our country in addition to the inappropriateness of the international shift handover formats for our healthcare settings have made the standardization of the shift handover difficult. Implementing standardized and structured shift handover protocols can improve nurses' safe practice. In other words, using shift handover protocols result in effective and regular inter-shift information communication which in turn, promotes the continuity of care.

Keywords: communication, bedside report

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ABSTRACT NUMBER: 006

HOW TO DEAL WITH STRESS IN EMERGENCY DEPARTMENT?

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Introduction: Emergency department (ED) workers face high job stress, because it demands an acute response of our brain to handle a particular situation. Despite the frequency of stress events, ED staff do not become immune to the stress. And still there is little effort to relieve their suffering.
Methods: Retrospective analysis of the literature
Results: Nurses are exposed to a variety of stressors that are highly demanding both physically and emotionally. Besides workload, dealing with critically ill patients and emotionally overloaded relatives is a highly challenging job for nurses working in ED. Repeated exposure of ED staff to stressful events may lead to a negative effect on their physical, psychological and emotional health. Work stress may contribute to absenteeism and high turnover which in turn affect patient outcomes. Majority of the staff receives inadequate support from hospital administrators following the traumatic incident. There are two kinds of stress: good stress and bad stress. Good stress is any stress which is positive and motivating, but not a threat to your existence. Bad stress, or distress, is negative and anger or fear motivated. Sometimes too much good stress can turn into distress if it goes beyond the optimal level of what we can handle and then becomes a threat. For example, a job promotion can be considered good stress, but if the work-related responsibilities associated with it are too taxing, then it can become distress. Struggling with stressful circumstances at workplace is common for all health care providers. Job stress causes hazardous impact on nurses' health as well as on their abilities to cope with job difficulties (deprivation from proper sleep, feelings of distress and anger, drinking excessive alcohol and loss of appetite, lowering morale, increasing absenteeism, decreasing the productivity and raising staff turnover rates. How to overcome this accumulated stress, the question is posed by employees in urgent centers. it is not easy to find the answer to this question, because each shift brings new challenges and leads to a new threat to one's own health due to the enormous stress that the job carries. Psychiatric counseling, taking medication, frequent illnesses and other types of absenteeism are less popular methods of overcoming the stresses that staff are resorting to. Several strategies are still recommended: balancing work and rest; developing wellness programs that support healthy lifestyles; developing and implementing policies for stress management; and improving working conditions.
Conclusion: At the moment numerous scientific papers on burnout and high stress among employees in emergency centers have not led to a significant improvement in the situation. Even if the State Health System wants to solve this problem by hiring new workers, which would help reduce stress at work, the trend of increasing visits to emergency centers does not allow the balance to be achieved satisfactorily for all parties in this game. Nevertheless, the strengthening of the primary health care of long-distance term will had a better effect and relieved the overload of staff in emergency centers around the world.
Keywords: emergency department, stress, nurses

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ABSTRACT NUMBER: 007

BURNOUT SYNDROME

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Introduction: Emergency departments are the busiest and most stressful units in hospitals. Emergency department staff is under constant stress because of crowded working environment, the severity of patients given care, and working schedules designed as shifts.

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Methods: Retrospective analysis of the literature
Results: Burnout has been defined as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. The syndrome have been linked to high levels of absenteeism from work among professionals group.
Burnout term was first used by Freudenberg in 1975. Nowadays, it is a very common syndrome, particularly in those working environments with a high work-related stress and a constant high workload. Caring for extremely large numbers of patients, death of patients, disturbances in sleep pattern, long working hours are demonstrated to be major stressors. In addition, handling patients presenting with confounding and challenging diagnoses and treatments, problems in professional relations, inadequate supply of hospital resources, messing up with patient's companions, unsafe working environment, difficult and critical judgments play important roles in development of burnout syndrome.
During the burnout process, emergency service personnel start to "wear out" and the quality of patient care deteriorates. This manifests itself with physical and emotional problems and at this stage alcohol and drug dependence can emerge and the incidence of tendency to commit suicide increases.
Burnout syndrome is presented through four class of symptoms: physical, when workers present constant fatigue, difficulties sleeping, inappetence and muscular pain; psychological observed by lack of attention, memory changes, anxiety and frustration; behavioral, identified when individuals neglect work, present occasional or instantaneous irritability, inability to focus, increase in conflicting relations with colleagues, long pauses for rest, problems with complying with work hours; and defensive, when workers tend to isolate themselves, when they feel omnipotent, when quality of work is poorer and they present a cynical attitude.
Conclusion: Burnout syndrome appears as a phantom menace awaiting emergency department staff. This syndrome is more likely to occur in the emergency personnel than the other health service workers. At least two-thirds of critical care nursing staff had a severe BOS. The incidence of BOS appeared to be similar among PHES and HES nurses with a higher trend for the former.
The emergency service is a stressful, challenging, and busy working environment due to various factors. Corrective measures aimed to improve working conditions and to reduce personnel stress will also increase the quality of the patient's health care. As a result, health care personnel suspected of burnout syndrome must be recognized and treated to prevent any adverse impact on patient care. Continued research in the form of prospective, longitudinal studies will be required to elucidate the consequences of this condition to identify risk factors for its development and to support the design of preventive strategies.
Keywords: burnout syndrome, emergency department, nurses

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