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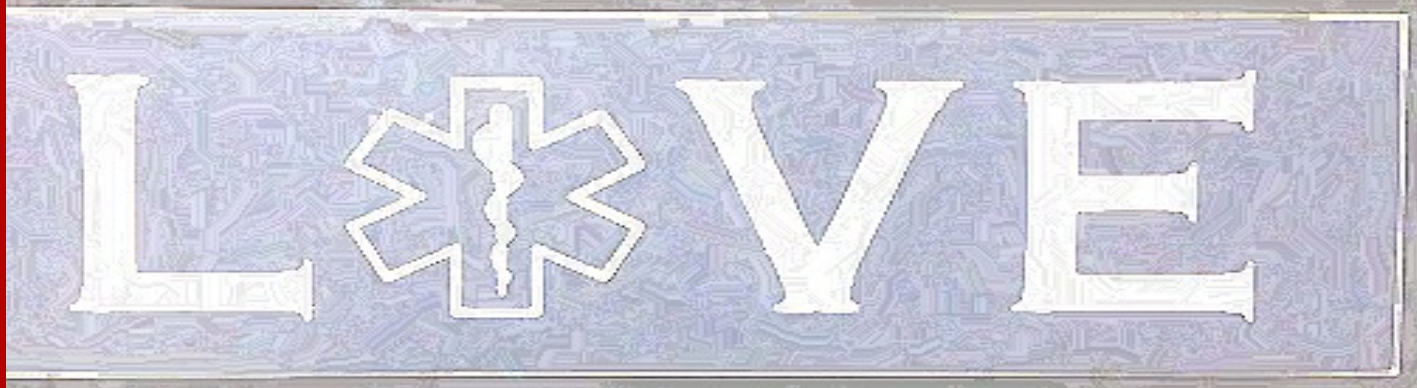

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Editorial

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ABSTRACT BOOK

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ABSTRACTS: DOCTORS

Abstract number: 001

TRAUMA NUMERICAL SCORING SYSTEM IN ASSESSMENT OF INJURY SEVERITY AND SURVIVAL RATE IN EARLY HOSPITAL PERIOD

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Introduction: Trauma numerical scoring system estimates severity of injury by determination of anatomical deformities resulting from the trauma or injury, and measuring the response to stress that is trauma. Commonly used scores in pre-hospital and the initial hospital period are: GSC, TS and RTS, AIS and ISS. Examine which numerical scoring system in these conditions in the simplest, easiest, and most objective to apply in the assessment of severity, and to show the evaluation of survival in comparison to the individual numerical values scoring systems.
The aim of this paper is to show the importance of performing PT in critically ill patients in PV an ICU.
Materials and methods: Total of 80 patients met the criteria for polytrauma and were analized. All injuries were documented and than classified using the following numerical scoring systems: GCS, RTS, AIS and according to it ISS. Values were calculated using the calculator on the site Trauma.org website (http: /www.trauma.org/scores/index.html).
Results: From the total sample presentation of brain damage after grading of GCS 6-8 and <6, was in 50% of cases. Distribution of patients according to RTS indicates that about one-third of patients had a severe trauma. The total number of injuries was distributed by individual regions of the body. Number of injuries and the percentage is distributed evenly for every body region (20-30%). Each region of the body that was scored had in over 50% of the cases severe injury, life threatening injury (AIS4) or critical injury (AIS5). Approximately 66% of patients had ISS from 25-49, which according to the intensity and interval distribution of the numerical scoring system would be regarded as moderate severity of the injury. Polytraumatised patients who survived with a statistically significant probability had ISS of 25-49. All patients who died had GCS score of 8 or less. (Mann-Whitney U-test.p <0.001). Most of the patients who survived according to RTS criteria had moderate or severe trauma (81.3%).
Discussion: In our conditions the application of RTS, GCS, AIS and ISS is simple and provides objective information on the severity of injuries and predict survival rate in polytrauma patients. GCS is the most optimal numerical scoring system to assess brain damage, and RTS is optimal numerical scoring system for the rapid assessment of the severity of injured at the accident site and in hospital in the early stage.
Keywords: trauma, numerical scoring systems, hospitalization

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Abstract number : 002

SUBARACHNOID HEMORRHAGE IN YOUNG PERSON DUE TO RUPTURE OF ANEURISM

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Introduction: Subarachnoid hemorrhage (SAH) is bleeding into the subarachnoid space, which usually occurs due to rupture of the aneurysm. Medical history is typical - sudden headache (like a strike), usually in the back of the head with spreading to the neck, and sometimes down the spine all the way to the lumbar part or in the frontal part of the head. Due to the rapid increase nausea, vomiting and impaired consciousness to coma may occur.

Due to meningeal irritation meningeal signs occur, but they can sometimes be poorly expressed or absent. In case of brain tissue damage focal signs could be found (hemiparesis-paralysis of half of the body, seizures).
A very important finding is bradycardia (slow heart rate), which can be 40 - 50 beats per minute and can serve as an indirect indicator of the size of intracranial pressure.
Materials and methods: Presentation of a case of subarachnoid hemorrhage, as a result of rupture of brain aneurysms in young person (28 years).
Case report: 24.02.2017. emergency medical team brings patient who collapsed in the gym. A friend who was with the patient gave the information that the training was a bit difficult and that at that time it was very hot in the gym. While falling, patient had hit head on to a metal box. About 2 minutes after that she was unconscious. She was not incontinent and was not shaking. The patient (28 years) is conscious, oriented, tired (just wants to lie down and rest, her previous work week was very stressful, has a poor appetite for several days). Primary examination reveals right frontal hematoma 5x8cm, not bleeding, painful on palpation, BP 150/90. Heart and lungs: normal findings. ECG: sinus, normogram, HR 88/min, with no conduction disorder, without disturbances in the ST and T. Neurological: pupil are equal in size, circular, generous symmetrical reaction to light, neck is not rigid, preserved muscle strength and UE and LE, without clear lateralization. MTR easily caused. Abdomen is at the level of the chest, respiratory mobile, painless to superficial and deep palpation, liver and spleen is not palpable. Bowel sounds audible. Symmetrical peripheral pulses are palpable. Initial therapy: Sol. Mannitol, Amp. Novalgetol, Amp. Klometol iv. The patient is monitored (BP, HR, SpO2, ECG). Diagnostics: laboratory shows slightly increased in CK and LDH. Other findings are regular. Craniography: no signs of bone trauma. During the observation period there is normalisation of BP (120/80), headache is reduced and localized only at the site of injury. Patient wishes to go to the toilet, where she collapses and was brought back to the monitoring. Neurologist consultation: somnolent, oriented. Immediately after placing in Mingacini, right leg drops few cm, but then holds long enough in position. Less positive Romberg, minimally compromised tandem walk. Further examination shows no abnormalities. Edocranial CT and EEG. CT: signs of massive haemorrhage with the penetration of the blood in the fourth brain ventricle. After that, the patient was urgently transported to the NHK Nis, where she underwent surgery the next day, recovered and was discharged from hospital.
Discussion: A case of a young patient is interesting for several reasons, which are could have lead us to different conclusions. Heteroanamnesis data provided by the patient's friend (heavy training, stifling room air, hard day at work) could have distracted staff and point it in another direction. The presence of close relatives (mother, father, sister), although conceived as "extra eyes" during the observation may bother if the requirements are too pronounced or if relatives interpret patient condition in a wrong way ("is she pregnant", "she is on diet" etc...). Inconspicuous neurological findings on initial examination, led us to think critical instead of proclaiming the state of patient as stable. Regular craniography could have also been embarrassing trap. The relatively inconspicuous neurological findings are also interesting, considering the cerebral hemorrhage that developed. The critical moment occurred while going to the toilet, when the patient collapsed during defecation.
Fortunately, rapid CT subsequently defined the problem, and further treatment was quick and successful.
Conclusion: The rupture of a brain aneurysm, although it may have a non-specific initial presentation, presents serious condition of the patient with high mortality rate. Any collapsing state should be taken seriously, and observation of these patients is of paramount importance in the definitive treatment.
Key words: subarachnoid hemorrhage

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Abstract number: 003

NECROTISING MEDIASTINITIS

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Introduction: Necrotizing mediastinitis (NM) is a rare but very serious and potentially life-threatening complication of oropharyngeal infection which is lowered into the mediastinal space trough connection path and superficial cervical fascial planes. Descendent form of NM is seen mainly in young adults. The average age is 36 years and 86% are men. About 70% of NM occurs through retropharyngeal path and 8% have pre-tracheal path. Previous cases and case report series show high mortality of NM that goes up to 40%.

Data synthesis: The primary origin may be odontogenic infection (originating from the second or third molars; about 40- 60% of all cases), pharyngeal soft tissue infections (14%), peritonsillar abscess (11%), sinusitis, cervical lymphadenitis (7%) or the result of external cervical trauma (5%) and traumatic endo-tracheal intubation (7%). Consequently it may be associated with a complication in laryngo-esophageal surgery and esophageal perforation caused by pressure lesion of solid foreign bodies. However, the largest number of cases is associated with cardiovascular operations (affects 1-2% of all patients with heart surgery). Other etiology such as perforation tracheobronchial tree, expanding of pulmonary infection to mediastinum or expanding infection of neck and head is also possible. These cases are characterized by an acute poly-microbial infections with the extension of fascia necrosis between the skin and musculature. This type of infection has the capacity to affect more anatomical zones, causing necrosis of the muscle and fascia, cellulitis, abscesses and systemic toxic infection.

All of this is associated with high mortality rate, unless the diagnosis is not made early and than rapidly treated. Elderly and associated chronic diseases are important predisposing factors for high mortality.

According to Endo classification (1999) NM is classified as a focal-type I and diffuse-type II, it is according to the degree of extension registered by CT. As clinical picture depends on the loclisation of infection, the descending mediastinitis presents with wide spectrum of clinical symptoms and signs of subacute forms to devastating form that requires immediate intensive therapy. Shiwering, fever, tachycardia, dyspnea and non productive cough are the leading symptoms.

Early recognition and diagnosis, aggressive surgical intervention, and close surveillance with serial CT scan are crucial for a reduction prohibitive mortality rate.

The primary treatment for NM consists of intravenous broad-spectrum antibiotic therapy and surgical drainage. Four different types of surgical approach have been described. Antibiotic therapy alone is not curative without surgical drainage of the cervical and mediastinal collections, with debridement and excision of all necrotic tissue located in the affected region.

The lack of familiarity and the rarity of this severe condition results in late diagnosis. This in turn led to serious complications including septic shock, bilateral empyema, purulent pericarditis, acute kidney injury requiring hemodialysis and prolonged mechanical ventilation. The main causes of poor prognosis and NM are the difficulty in establishing an early diagnosis, inadequate drainage and debridement of the cervico-mediastinal spaces, patient clinical state (which is often poor) and rarity of this condition.

Conclusion: The descending necrotizing mediastinitis is a severe, potentially fatal form of mediastinitis, which occurs as a complication of odontogenic and / or deep cervical infections. Descending mediastinitis is a life-threatening condition in which if not reacted quickly, should be considered in terms of a very urgent situation.

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Abstract number: 004

EFAST-EXTENDED FOCUSED ASSESSMENT WITH SONOGRAPHY FOR PATIENTS IN TRAUMA

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Introduction: Ultra Sound (US) is increasingly important in primary care of patients. It is important in emergency medicine as well as in the field and in the physician's office. It is simple, easily available, can be reused and gives us a rapid answer toward diagnosis. EFAST exam is standardized, exact and fast, and with it we get very useful information. We use it at the hypotensive trauma patients, with unknown cause. We can easily learn how to use it in courses and exercises. Perhaps the best known are WINFOCUS courses and there are of course others. E-FAST is just one of many exams in emergency medicine.
Data Synthesis: US is part ABCDE protocol while examining the patient. Emergency ultrasound is available, fast and affordable for patient. It does not require a lot of time and can give us important information about the condition. We can follow the dynamics of events, because it can be redone and is simple. This is not a special examination, as ultrasound examinations are. With it we get a simple answer, such as YES or NO. (Is there free fluid present or not). First of all we want to know whether there is presence of free fluid in peritoneal space or not, or whether there is pneumothorax or fluid in the pleural space. It can be used not only in trauma, but also in other emergencies, especially in unclear hypotensive conditions.
Ultrasound in emergency medicine has become an integral part of the ABCDE protocol. With it we get more time and better patient treatment. **Performing EFAST**: Most of the patients are on a stretcher in the prone position. In this position US can be easily be done by protocol. We use low-frequency probe, because of better penetration of soft tissue (abdominal or cardiac). FAST we use 4 the preview pane: **Hepatorenal pane**: The probe is placed in the axillary line. Marker is directed towards the head. We're looking for a free liquid in the R upper quadrant, hepatorenal primarily in Morrison's pouch. We move anterior and posterior. This way we can easily see the diaphragm and also check for pleural effusion. **Pericardial area**: Place the probe subxiphpoid with a marker towards R shoulder. In this view we see heart (4 chambers). We look at the heart and all four ventricles. At the same time we are looking if there is any fluid in the pericardial space or not, and whether there are signs of cardiac tamponade. **Splenorenal space**: To view the splenorenal space, place the probe into posterior axillary or middle axillary line with a marker toward the head. Left kidney is set slightly upper than the right. We're looking primarily for free intraperitoneal fluid, especially below the diaphragm and around the left kidney. **Retrovesical space**: probe is placed just above the symphysis, initially tangentially, then sagittal. We look at so that the marker is directed towards the head, then turn 90 degrees, so that it points the right side. We looking whether there is intraperitoneal free fluid or not. Orientation us the bladder, usually filled with fluid. This is a basic FAST exam... Extended also includes the review of the pleural space and is used to confirm or rule out pneumothorax. The position of the probe from view D and L upper quadrant move anteriorly and look at the space above the diaphragm, to check whether there is free fluid in the pleural space. This is followed by confirmation or exclusion of pneumothorax. The probe placed in the middle clavicular line, between 2nd and 3rd rib. The probe is placed sagittal and move slowly down. We watch the movements of the pleura. We note A lines and "comet tails ", which is normal finding. We also look in the M-mode. If we see "sandy shore", we can rule out pneumothorax. If it looks like a „barcode", it would mean that there is pneumothorax. Pneumothorax is finally confirmed with pulmonary point.
Conclusion: EFAST is the auxiliary integral part of patient exam in the field. We determine order of exams and it depends on what is the most adequate and what we're closest to. It gives us a lot of useful information that can help us in the diagnosis and proper referral of patients. US are

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getting smaller, handy, readable and also inexpensive. It develops fast and becomes an integral part of emergency and general medicine.

Keywords: emergency ultrasound

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Abstract number: 005

SYNDROMA HOIGNE

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Introduction: Hoigne syndrome is non-allergic, pseudoanaphylactic, acute, embolic-toxic, reversible reaction. It was described by Swiss doctor Rolf Hoigne in 1959 as a group of neuropsychiatric symptoms after administration of procaine penicillin. The majority of cases occur after parenteral administration, but there are described cases after oral administration of penicillin. Prevalence 1-3 in 1000.

Case report: On 23.09.2016, the patient A.B. 62 years old, receives ampoule of Pancillin (benzylpenicillin, benzylpenicillin-procaine), in our clinic, due to inflammation of the pharynx. During the administration of the therapy the patient complains of tinnitus. Further administration of medicine is immediately seizes. At the time of examination, patient is extremely restless, confused, doses not answer questions sensibly, tries to push the medical staff and get up from the bed, complaining of tightening in the chest and numbness of the left half of the body. Examination of patient is hampered by the lack of cooperation. There is normal coloration of the skin and visible mucous membranes without cyanosis. Blood pressure is 180/100. Oxygen saturation is 98%. There is normal sound over lungs. Heart shows tachycardia, clear tones, murmur is not heard. ECG could not be done due to anxiety and lack of cooperation of the patient. After a few minutes symptoms subside. There is withdrawal of all symptoms and signs other than mild agitation. Findings by systems are regular as well as neurological status. The patient describes experienced hallucinations as "a terrible pounding in the head and some monsters that are trying to get into his mouth". IV line is placed, intramuscular he was sedated by intramuscular medicine and than transported to the Department of Hematology accompanied by the medical team, where he was treated with fluid therapy, antihistamines and steroids. The patient is said to be allergic to penicillin and to suspend further use of such drugs.

Discussion: Pathophysiology of Hoigne syndrome is still insufficiently clear. There are two theories. The first vascular theory is based on the fact that micro crystals of procaine penicillin, in injection site where the needle damaged in the blood vessels, get into the blood stream and cause thromboembolization of small blood vessels of the brain and lungs (in case of improper techniques of administration, when it is not given deeply i.m., or when due to multiple punctures in a small area leads to damage to the walls of the arteries). Other, so-called toxic theory, indicates that the molecule of procaine penicillin in the body is broken down by the specific enzyme system, where an enzyme procainesterase metabolize procaine to non-toxic products. In decreased enzymatic activity of procainesterase there is increased level of procaine in the systemic circulation, and thus exerts the toxic effect on the nervous system. Symptoms that occur by the nervous system are a result of stimulation of the limbic system, and because of them the Hoigne syndrome is called procaine psychosis. Symptoms occur a few seconds after administration and last several minutes to 1 hour. Symptomatology: psychomotor agitation, panic, fear of death, confusion, auditory and visual hallucinations, depersonalization, derealization, metallic taste in the mouth, even partial or generalized seizures. Beside neuropsychiatric symptoms, systemic symptoms can occur: tachycardia, hypertension, dyspnoea. In the literature Hoigne syndrome is described following treatment with amoxicillin, ceftriaxone, clarithromycin, enoxaparin sodium, lisinopril, panprazolom and fentanyl. Treatment can be difficult at first if a person is very upset. Sedatives should be used in therapy.

Consultation of neurologist or psychiatrist should be considered because of discomfort and fear. It is not necessary to suspend the application of penicillin. We should explain to the relatives of patient that wrong drug was not given or the wrong way, but that this was one of the possible adverse reactions. For the physician it is most important to know that this syndrome is different than anaphylaxis - no angioedema, urticaria, bronchospasm and vascular collapse because therapy that is diametrically different.

Key words: syndrome Hoigne

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Abstract number: 006

CONCEPT, IMPORTANCE AND DEVELOPMENT OF TACTICAL MEDICINE IN SERBIA

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Introduction: Tactical medicine is a specialized form of emergency medicine adapted for medical support to security forces in states of emergency dominated by violence (terrorism, suicide terrorism, hostage situations, etc.). Principles of tactical consist of simple medical and tactical actions taken in tactical situations, immediately after the injury with the goal to provide self-help, help to other colleagues or injured in various cases.
Objective: is to explain what is tactical medicine, its history and its establishment in Serbia.
Data source and selection of materials: Retrospective analysis of literature with the provisions of "tactical medicine", "course", "tactical emergency care", "Tactical Emergency Medical Support" (TEMS). Searching is done through: PubMed, Medline and electronic magazines accessible via KoBSON as well available literature in the Library of the Faculty of Medicine in Kragujevac. We have used papers released in the English language in the period from 2002 to 2016.
Results of synthesis: Tactical medicine was originally developed to provide care for members of the military. Tactical Combat Casualty Care (TCCC) was developed in the 1990s by the United States of America (USA) Army on the basis of experience gained during the Battle of Mogadishu in Somalia, in October 1993. Traditional Emergency Medical Support (EMS) trauma protocols have proven to be inadequate for the types of violations that have occurred in combat situations. First TCCC recommendations were published in August 1996 in military medicine by the Committee TCCC USA. The introduction of these recommendations had a major impact on American army and the development of tactical medicine in the world. Nowadays, the training of tactical medicine is conducted through courses lasting from 1 to 5 days. Most has been done in the United States - where there are the International Schools of Tactical Medicine, as in Palm Springs, California, active since 1996 and which offers training that lasts 2 weeks. Medical tactical training in Serbia is done by National council for tactical medicine, formed as a part of Resuscitation Council of Serbia in January 2014 with the goal to facilitate the exchange of professional and scientific knowledge and information in this medical branch. Council implements two courses: Emergency First Responder course that lasts 2 days and Medicine in Remote Areas Course (MIRA) which takes 3 days. Various events in the world and in home land showed that in special situations the police are the first to perform tasks. Performing difficult and dangerous tasks where life is at risk, were key in making the decision to get training of police officers of Gendarmerie to start with tactical medicine training. Our idea is that Gendarmerie physicians should adopt and implement training according to international accepted standards. After completion of courses by National Association of tactical medicine,

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doctors who completed their training, performed it, according to the guidelines in educational center in Kula. Training takes place through scenarios that are implemented "Four Step Teaching" methods as well as the gradual introduction to work on skills stations, takes 10 hours, is labor intensive and includes lectures, demonstrations and practical work on mastering the scenario - using manikins. Course is organized in small groups with a full focus on the actions and procedures in high-risk tactical environments during the course of care under fire and tactical field implemented by a member of the security forces. Trainees gain skills and knowledge necessary for a completely individual and independent treatment of injured in high-risk environments and situations where firearms are used. In cooperation with the National Council for tactical medicine in Serbia, training program international recommendations for tactical medicine Tactical Combat Casualty Care Guidelines for Medical Personnel 2015 were fully implemented.

Conclusion: Tactical medicine concept was created and developed in the military environment, many of the TCCC principles are easily applicable in police units and civilian organizations. Development, standardization and implementation of tactical medicine in Serbia should take place with the cooperation with the National Council for tactical medicine of Serbia and must be in accordance with the international recommendations.

Keywords: Tactical medicine, course, training.

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Abstract number: 007

PHYSICIANS DIAGNOSTIC DILEMMAS IN PRE-HOSPITAL SETTINGS

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Introduction: In conditions where there is no big clinical centre, considering modest capacities of small general hospitals and chronic lack of specialists, emergency medical teams have an ungrateful assignment – they have to make a quick assessment and make a working diagnosis, but also decide about an eventual transport to nearby health centre, having in mind capacity of that centre.

Aim: Case report of patient with overlapping symptoms of two different pathologies of which one is harmless and the other is life threatening

Method: Case study on a basis of medical documentation (psychiatric report and discharge papers from internal medicine department of Kikinda general hospital) and physical examination of a patient.

Case: 14.03.2017. at 00:05 Department of emergency medical service Kikinda gets the call from 55 years old man complaining of heavy headache, fatigue and nausea. From his e-chart we found out that the patient suffers from chronic alcoholism (F10) with a history of psychiatric treatment. His medications consist only of Tbl. Bensedin 5mg. Other diagnoses in his charts are Polyneuropathia alcoholica (F60.8) and Cholelithiasis (K80). After arriving at a patients house we find him laying down, intoxicated from alcohol, in presence of his wife and son.

Symptoms: He complains of migraine-type left side headache, nausea and fatigue. He claims he has been drunk for a month. Visibly upset, sweaty and tachypneic. In additional questioning, we find out that he has dyspnea for a few days and a „weird feeling“ in his chest.

Physical findings: Unspecific sharp vesicular breathing sound, respiratory frequency is 20/min. Heart sound is normal, rhythmic, without pathological sounds, ankles and legs without edema, blood pressure 90/50mmHg. Blood glucose level is 4.5 mmol/l. ECG shows sinus rhythm, frequency of 70/min with 1,5mm ST segment elevation in V2,V3 and V4. No previous ECG for comparison. We decided to transport the patient to the internal medicine department of general hospital Kikinda. IV line was placed. Therapy: Tbl. Klopidix 300mg and O2 6 L/min. Patient was

kept for observation over night, with negative troponin levels. He received 500ml of 0.9% NaCl and Amp. Ranisan. On discharge his ECG was identical without normalisation of ST segment.
Discussion: Symptoms such as fatigue, general disturbance, tachypnea, headache and nausea can lead to diagnosis of chronic alcoholism, which is possible to threat in house of patient, while on the other hand – fatigue, general disturbance, shortness of breath with tachypnea, hypotension and ST elevation in V2, V3 and V4 are signs of myocardial infarction of the anterior wall.
Conclusion: Existence of observation room in departments of emergency medical service and availability of diagnostics such as quick lab analysis (complete blood count, troponins and other cardiac specific enzymes) would greatly reduce workload of small health centres where the patient could be adequately taken care of on the primary level.
Keywords: dilemma, acute myocardial infarction, chronic alcoholism.

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Abstract number: 008

FROM FLU TO SURGICAL TABLE

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Introduction: During the flu season, fever is not only a symptom of this disease, but also an adequate medical history and careful examination lead to accurate diagnosis and cure patients.
Method: A case report from the practice of Emergency Services triage and reception at the Clinical centre in Zaječar.
Case report: On January 24th 2017, during the flu season, 65-year-old patient S.C. came to Emergency Services triage and reception due to increased body temperature of 40 degrees and nausea. The patient states that he saw his chosen general practitioner, that he is on antibiotic therapy for four days but that there is no improvement of general condition.
Inspection shows noticeable yellowish tinge to the skin and visible mucous membranes, the skin is dry with reduced turgor. There is no significant deviation from the normal physiological finding in the clinical examination. On deep palpation, there is discrete painful epigastric tenderness. All vital parameters are without deviation: BP 120/70 mmHg, HR 100/min, SpO2-97 BT-40,1, blood glucose-7,5 mmol/L. ECG is regular. Patient has been kept for observation - blood was taken for analysis, rehydration therapy began and abdominal ultrasound was scheduled.
During conversation, we learn that he has a dog as a pet. The laboratory shows a rise in liver enzymes ALT 76, AST 54, gGt 407, bilirubin 43,2 and leukocyte growth 12,5×10^9. Ultrasound examination showed multiple simplex cysts in liver parenchyma, suggesting that we should suspect Echinococcosis. We have consulted a surgeon and infectious disease specialist who had confirmed our suspicions, scheduled CT of the abdomen and the patient was taken to the infectious ward of Clinical Centre in Zajecar. After several days of treatment with albendazole, the patient underwent surgical laparoscopic intervention with extirpation of the echinococcus cyst, which is the safest form of therapy. The patient was discharged in good general condition.
Discussion: Observation of the patient with this clinical picture is of crucial importance, because in the period of flu fever it can be attributed to the disease. On the other hand jaundice and fever can lead us to dilemma of a series of viral hepatitis inflammation of the gallbladder. Thanks to adequate diagnosis and rapid inclusion of anti-parasitic treatment, in a couple of days there has been a decrease in temperature and the stabilization of the general condition, so a week later the patient underwent surgical treatment. Thus we avoided complications in terms of dissemination to other organs due to perforation of the cyst and possible peritonitis. Perforation of the cyst releases allergens, and serious anaphylactic reactions are described. Timely diagnosis and treatment save lives, of course.

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Conclusion: Adequate medical history, quick diagnosis and proper treatment are a sure way to the healing.
Keywords: Flu, temperature, medical history, Echinococcosis

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Abstract number: 009

FORENSIC ASPECT OF FATAL INJURIES OF THE CHEST AND ABDOMEN

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Introduction: Injury represents violent damage to health caused mainly by action of external forces. In forensic medicine, it indicates a violation of anatomical integrity and physiological functions of tissues and organs. Mechanical injuries occur by force of mechanical object. They are divided into non-specific and specific. Forensic significance lies in the fact that it studies the structure of mechanical damage, and consequently allows the determination of the causes of death, injury type, characteristics of the object and the mechanism of action.
Material and methods: The research presented in this paper was carried out at the Institute for Forensic Medicine in Nis by analyzing autopsy reports from 2014 and 2015. Data was statistically and scientifically analyzed and presented appropriate to subject and objectives of the research.
Results: In the analysis of autopsy material for 2014 and 2015 at the Institute for Forensic Medicine in Nis, of 1797 autopsied, there were 342 with trauma (19%). Of the total number of traumatized, 292 (85%) were with mechanical injury of the chest and / or abdomen and combined injuries. Thoracic injury were represented in the 56 cases (19%), isolated thoracic injury also in the 56 cases (19%), isolated abdominal injury in 16 cases (5%) and combined injuries in 85 cases (29%). Organ injury in thorax and abdomen were the cause of death in 128 cases (60%), while in the 85 cases (40%) deaths were related to the injury of some other organ. The most common cause of injury were traffic accidents - 117 cases (55%). In 21 (18%) cases survivors were cyclists or motorcyclists (18%) and in 11 cases (9%) death was caused as a result of train accident. In 23 cases (11%), death occurred after falling from height, and in 25 cases (12%) killed shot. In injuries of the chest and abdomen injuries respectively, multiple injuries dominate, while in combined injuries the most common are fracture of the ribs, hemopneumothorax and liver tear.
Keywords: chest injuries, abdominal injuries, combined injuries, motor vehicle accidents

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Abstract number: 010

THE INFLUENCE OF INTRAOPERATIVE ADMINISTRATION OF REMIFENTANIL OR FENTANIL DURING GENERAL ENDOTRACHEAL ANESTHESIA ON THE RECOVERY AND THE EARLY POSTOPERATIVE PAIN INTENSITY IN THE SURGERY OF COLORECTAL REGION

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Introduction: Remifentanil is the first opiate with ultra short effects. The rapid metabolism with blood and tissue nonspecific esterase allows it a very rapid cessation of analgesic effect. The aim of this study is to examine the pace of recovery, the intensity of early postoperative pain and systemic use of analgesics after use of fentanil and remifentanil during general endotracheal anesthesia in colorectal surgery.

The aim of this paper is to show the importance of performing PT in critically ill patients in the PV in ICU.
Materials and methods: The study was conducted on thirty patients having a colorectal surgery under general endotracheal anesthesia. Ten of them for intraoperative analgesia received Fentanil (group F) in a total dose of 0.7 ± 0.1 mg; second group of ten subjects received remifentanil in a dose of 1 mg/kg for the induction of anesthesia and after endotracheal intubation maintenance dose was 0.15μg/kg/min (group R); third combined group (F-R), remaining ten subjects received a 0.2 mg fentanil prior to induction of anesthesia and before surgical incision 0.2mg. Intraoperative analgesia was maintained with remifentanil at a dose of 0.15μg/kg/min. For post-operative pain therapy we used to tramadol in maximum daily dose of 400mg. The speed of recovery and the early postoperative pain intensity was assessed by Ramsey's scale (RS) and the numerical rating scale (NRS) every hour.
Results: The patients from the first group (F) one hour after the surgery had an acceptable level of pain at rest (NRS = 3 ± 1), but significantly higher level of sedation (RS = 3 ± 1). Patients from second group (D) were more active (RS = 2 ± 1) but with stronger postoperative pain (NRS = 5 ± 2). Patients third combined group (F-R) had a lower level of sedation (RS = 2 ± 1) and an acceptable level of pain (NRS = 3 ± 1). Use of tramadol in the first post-operative day was much higher in the group R in comparison to group F, and 18% and in relation to the third combined group 13% ($p < 0.05$).
Discussion: The combination of fentanil and remifentanil is most acceptable because it reduces systemic use of analgesics in the treatment of pain during surgery in colorectal surgery done in general endotracheal anesthesia.
Keywords: fentanil, remifentanil, postoperative pain, colorectal surgery

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Abstract number: 011

IMPORTANCE OF TELEMEDICINE IN MEDICAL EMERGENCIES

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Introduction: Modern health systems strive to increase the quality of health care. Taking into account the benefits of modern technology and the importance of adequate diagnosis and treatment of emergency medical conditions imposes itself as the logical conclusion of the need to use modern technology in the care of emergency patients.
Telemedicine represents the provision of healthcare services using information and communication technologies regardless of geographical location of the medical team, the patient or medical equipment
Active implementation of telemedicine could contribute to the reduction of costs in health care, improvement of cooperation between different levels of health care, allow rapid consultations in emergency medical conditions, mass disasters, as well as in training of health workers.
Material and methods: Retrospective analysis of the literature available in electronic form.
Results: Health systems aim to reduce costs, standardize services and ultimately have good results. The formation of virtual teams, aided by the possibilities, today provided by information technology contribute to a better organization, significant improvement in the quality of health care workers, the speed and accuracy of diagnosis and, consequently, faster decision-making on the further therapeutic effect with lower health care costs.
Taking all this into account the integration of telemedicine in health facilities, especially in the services for the provision of emergency medical services is essential to our immediate future.
Discussion: Telemedicine applications include telediagnostics, teleconsultation, telemonitoring, teleconsilium. In countries that have integrated telemedicine system, special importance is found in the field of radiology, pathology, medical emergencies, cardiology, orthopedics, surgery,

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and oncology. During medical emergencies good cooperation with general hospitals and clinical centers is required, where use of information and communication technologies could enable the formation of virtual teams - group of more doctors who operate in a different time, geographical and organizational areas with the aim of setting up faster and more accurate diagnosis.
Actions to implement telemedicine in Montenegro pointed to the lack of medical equipment that supports telemedicine connectivity and networking. It is also observed that there is a significant lack of information among health professionals concerning the lack of understanding the benefits of telemedicine.
Keywords: Telemedicine, emergency medical conditions, emergency medical service.

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Abstract number: 012

WOLF-PARKINSON-WHITE SYNDROME (WPW), DIAGNOSIS AND TRETMANT IN ER

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Introduction: Wolff-Parkinson-White (WPW) syndrome is a condition in which there is an extra electrical pathway in the heart. The condition may lead to periods of rapid heart rate (tachycardia). WPW syndrome is one of the most common causes of fast heart rate problems in infants and children. In people with WPW syndrome, some of the heart's electrical signals go down an extra pathway. This may cause a very rapid heart rate called supraventricular tachycardia. Most people with WPW syndrome do not have any other heart problems. However, this condition has been linked with other cardiac conditions, such as Ebstein anomaly. A form of condition also runs in families.
Material and methods: Data source are Institute for Emergency Medical Care protocol of patients and medical history from Clinical Centre of Montenegro, Department of Cardiology. The results were obtained by retrospective data analysis.
Case report: Patient is a woman, 34 years old, who was brought to the emergency medical care in the afternoon, because of rapid and irregular heart rate. She denies loss of consciousness. She states that in the past, on several occasions, she had similar symptoms that have suddenly emerged, lasted few seconds to one minute, and then passed spontaneously. During examination, she's conscious, oriented, eupnoic in peace, BP 100/50 mmHg, the ECG- AF, HF about 200 / min, with variable severe signs of pre-excitation. Heart: rhythmic action, tachycardia, clear tones, murmurs are not heard. Pulmo: normal respiratory sound. Venous line was placed and given Amiodarone. The patient was transferred to Emergency Room (ER) and admitted to the Coronary Care Unit(CCU). Upon receipt to CCU use of Amiodarone was continued, where synchronous DC shock 150J was given, followed by establishing sinus rhythm. The patient stayed at Cardiology Clinic, where RF ablation was performed. ECG at discharge: sr, HR about 55/min, PQ 0,16sec, shallow negative T in D3, aVF, without delevelling of ST segment.
Conclusion: The incidence of WPW syndrome in the general population is 0.1-0.4%. Clinically it can be manifested in different forms of tachycardia PSVT, AF, atrial flutter, VF, as well as sudden cardiac death. Due to the potentially dangerous arrhythmias, early diagnosis and initial treatment in emergency medical care is of great importance.
Keywords: diagnostic, initial treatment, Institute of emergency medical service

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Abstract number: 013

SURGICAL TREATMENT OF DISLOCATED TWO-PART PATELLA FRACTURES EARLY SURGERY - BETTER RESULT

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Introduction: Patella fractures are the most common bone lesions in the knee joint. They account for about 1% of all fractures of the bone system. They mostly occur in people of middle age and are twice as common in men. Fractures occur by the influence of a direct force and that is a hit or fall on patella or by indirect mechanism - powerful action of upper knee musculature - tripping or while falling. Dislocation of bone fragments is a common and fracture can be in two or many parts. Fracture is diagnosed by clinical examination and more accurate by radiographic imaging.
Materials and methods: Overview of available documentation OB Vrsac
Results: Dislocated two-part fractures can be successfully treated only by surgery. In healthy patients, there is no reason not to do surgery almost the same day injury occurred. By early surgery we avoid formation of large swellings and skin changes, bula. Waiting and putting plaster immobilization, only emphasizes these changes and possibility of thromboembolic complications and treatment lasts longer.
Osteosynthesis of patella with ZUGGURTUNG method, performed with two Kirschner pins and set longitudinally and parallel and wrapped with wire, is a method that we use in these situations.
Results: During 2015 to 2017, in OB Vrsac this method was used on 12 injured with two-part fractures of the patella in the first 24 hours after injury. There were 8 men, 4 women, mean age 42 years. After the admission, diagnostics, laboratory tests and anesthesiology review, this surgical method in spinal anesthesia was performed. All patients were walking the next day with the help of crutches and with partial weight bearing on injured leg. They left hospital without plaster immobilization from 7 to 10. day. Sutures were removed after 14 days. Knee flexion of 90 degrees was reached after a month and full range of motion in the knee joint was gained after 3-6 months. Patients were crutches free after 2-3 months. There were no complications. Sick leave is lasted from 2-4 months. Removing osteosynthetic material was done after 8-16 months after surgery.
Conclusion: Early surgery of these fractures, in the first 24 hours after injury, avoid the most common postoperative complications, significantly shortens the hospital stay, length of treatment is shorter, and using surgical ZUGGURTUNG method avoids postoperative use of plaster immobilization, which greatly accelerates knee joint function and reduces the cost of treatment.
Keywords: patella, fracture, zuggurtung

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Abstract number: 014

THORACIC TRAUMA – FREQUENCY AND MANAGEMENT

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Introduction: Chest injuries have a special place in traumatology and represent an important health problem because they are cause of mortality in patients of all ages. They are divided to closed and open. Closed injuries occur with blunt force and continuity of the chest wall is preserved. Open injuries are penetrating and are caused by projectile or sharp weapons, and their severity depends on the site, the depth, the amount of the force which caused injury, and the angle. Type of surgical treatment certainly depends on the type and severity of injury.

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Materials and methods: The study included patients who had acute chest injuries in the period from January 1st 2014. to 01.01.2017. All were hospitalized at the Clinic for Thoracic Surgery, MMA. Each patient got diagnostic standard including laboratory analysis, chest X-ray, chest MSCT chest and with injury of the sternum mandatory heart ultrasound. After the initial observations corresponding thorax-surgical procedures are done: pleural drainage, VATS or open surgery.

Results: In the period from 01.01.2014 to 01.01.2017 total of 131 patients were hospitalized due to thoracic trauma in the Clinic for Thoracic Surgery. Women 25 (19%) and the average age of all patients was 62 years. Rib fractures accompanied by pneumothorax were managed by pleural drainage in 42 (32%) patients. Total of 35 (26.7%) injured was admitted with clinical and radiological signs of hemothorax and hemopneumotraksa and they are managed in the same surgical way. With these injuries three patients had pneumomediastinum. Isolated serial rib fractures with no signs of pleuro - pulomonal lesions were found in 26 patients (19.8%). In one patient (0.7%) VATS was applied in order to evacuate hematoma evacuation from pleural space. Fracture of the sternum occurred in 11 (8.3%) patients and was treated conservative and solved. Isolated contusions of lung were diagnosed by chest MSCT chest in seven (5.3%) patients, and also observed and conservative managed. With open thoracic injuries we addmited six patients (4.5%) injured by stabbing with knife, and everyone had wound exploration with or without thoracic drainage. Three (2.3%) patients with gunshot thoracic injuries were hospitalized, two was operated on immediately and small exploratory thoracotomy with atypical resection of an injured part of the lung had been performed and the third one was already dead at the surgical admission. Because of complications arising during the stay on the clinic and development pleural empiema, two (1.5%) of the patients were operated on conventional thoracotomy and then underwent a decortication of pleura. Lethal outcome was noted on a total of seven patients (3.8%).

Discussion: During the period in which we followed our injured patients, most victims were men in seventh decade of life. Greatest number of injury was due to a fall, traffic accidents and physical conflicts that resulted in contusion of the chest with fractures of the ribs and sternum complications. Fractures are clinically important because we can always expect the injury madiastinal organs, most often heart contusions. Nine had open chest injuries, five underwent surgery where peripheral parts of the lungs and lower blood vessels were managed. Video-assisted thoracoscopy was done after 48 hours from the admission of the patient due to the findings of organized hematoma in the pleural space, which was seen in chest MSCT. This injury has occurred 18 days earlier and was treated in the regional center and as there was no radiographic regression and despite the present chest tube, patient was sent to our institution for further treatment. Decortication of pleura is most successful procedure to treat any kind of empyema which occur in chest trauma in unresolved form of hemothorax and clot who have in the meantime been infected. According to data analysis of trauma patients in the period of last three years we have come to the conclusion that the greatest the percentage of patients (60%) was hospitalized due to closed chest trauma and that the most frequent thorax-surgical intervention was the placement of the thoracic drainage. Small thoracotomy have great importance in the exploration and management of open lung injury and adjacent anatomical structures. VATS is certainly an important therapeutic choice but this method still does not apply to the extent that is indicated because the chest surgeons have to educate and technically adopt process that it demands. Decortication of lung is a surgery which solves complications of trauma to the lungs which are associated with localized intrathoracic infection.

Keywords: Trauma, chest, surgical treatment

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Abstract number: 015

HYPERTENSION IN YOUNG PEOPLE IN THE MUNICIPALITY OF TIVAT

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Introduction: Hypertension is defined as a condition of elevated blood pressure of systolic > 140 and diastolic more > 90mmHg and is the most common disease of today. It is the main risk factor for stroke, myocardial infarction and chronic kidney disease. The World Health Organization estimates that approximately 600 million people suffer, and that about 3 million die each year from the consequences of hypertension. In 95% it is primary and develops as a result of environmental factors in combination to the genetic factors, and in only 5% it is secondary, as a result of another disease. It is most common in people over 50 years of age, but nowadays, primarily due to changes in lifestyle (stress, inadequate diet), it is getting more common in younger people.

Methods: Review of data from outpatient protocol for 2014 and 2015, relating to patients between the ages of 35 and 45, who were treated in the emergency department due to hypertension.

Results: During 2014 emergency department of the Institute of HMP in Tivat (14031 resident, according to the last population census), examined 7096 patients. Among them, 34 people from analyzed age group were treated for hypertension and accompanying symptoms, which makes the 0,44%. In 2015, the number of exams was 8884, and 60 or 0.67% from required age group. During both years, male to female ratio was approximately 1: 1,3. The levels of blood pressure ranged from 140-220mmHg for systolic and 90-120mmHg for diastolic. The most common accompanying symptoms were headache and from other they noted dizziness, instability, pressure in the head, tinnitus, chest discomfort.

Discussion: Blood pressure values are affected by factors related to the environment, climate, diet. Among them, the most researched is diet. For decades, the primary form of non-pharmacological treatment of hypertension is recommendation of restrictive salt intake. However, studies have shown that changes in the overall diet have a greater impact on the prevention and treatment of high blood pressure than single salt restriction. As early as 1986 there were published results of clinical trials that have demonstrated a lower value of blood pressure in vegetarians, who consume large quantities of minerals and fibers, as compared to those who do not follow vegetarian diet. Today, because vegetarianism is not widespread, we recommend the use of the Mediterranean diet. It consists of a high intake of olive oil, legumes, grains, fruits, vegetables, moderate to high intake of fish and moderate intake of wine and dairy products and low in meat and meat products. Numerous studies have shown that the most effective component is olive oil which has a positive effect on a reduction of both systolic and diastolic pressure. Food enriched with minerals also contributes to the prevention and reduction of the level of hypertension. Small sea fish is particularly rich source of calcium (it has been shown that people who take calcium supplements have lower blood pressure values). Mediterranean area provides its population more comfortable life with a little less stress than the continental area. With a large number of sunny days, residents of the Mediterranean region spend more time outdoors so they are more active. A large number of traditional festivities, which are common for all parts of the Mediterranean region, provide leisure, socializing with friends and family. Cities are with small number of residents. Therefore, there is a greater connection with the community, as opposed to alienation and hastened life in continental regions and major cities in the west. Mediterranean climate is mild, temperature differences between the seasons are moderate and they feel soothing. Air pressure oscillations are small, which is good for maintaining blood pressure within a normal range. According to health research of Serbian population from 2013, hypertension was found in 28% in the age group of 35-45 years, which is significantly higher than the percentage of hypertension that was found in the total number of examined at HMP Tivat within one year.

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Conclusion: Because of the great importance of hypertension in the development of other diseases, health workers need to work on the detection and treatment of hypertension, but also to promote a lifestyle that reduces the prevalence of hypertension in the general population.
Keywords: hypertension, Mediterranean diet, climate, lifestyle

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Abstract number: 016

DISSECTING AORTA - THE CASE OF LACK OF GOOD COMMUNICATION BETWEEN PHYSICIANS AT PRE-HOSPITAL AND HOSPITAL LEVEL

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Introduction: Dissecting aorta is defined as the separation of the layers of the blood vessel. Intimal tear leads to the creation of a false lumen, which promotes the proximal or distal. An influx of blood between the layers of the wall results in a decrease of blood flow to organs, while the rise in pressure in the false lumen causes aortic rupture. Mortality is high, around 50%, and still maintains, primarily because this is a disease that we are "not thinking of".
Materials and methods: A case report based on available medical records
Case report: Emergency department of the HMP CG, Tivat, 28.02.2017: Patient MP, 46 years old comes with family members because of chest pain of high intensity, a sense of difficult breathing and weakness. The pain began 15 minutes before arrival, started in the back, right, at the level of rib cage, and then expanded forward, at the level of rib arches and upwards behind the sternum, with radiation to the neck. She was sweating. Because of the pain she can not take a deep breath. From earlier diseases she said that she had ”problems with spine and nerve inflammation”. On examination the patient is upset, takes half-sitting position. Her pain is stronger in the supine position. Skin and visible mucous membranes, skin sweated. Dyspnoic with SpO2 96%. BP 70/40 mmHg (blood pressure on both upper arms are the same). Glucose 10.6 mmol / l. Pulmo: shallow breathing without the accompanying sounds. Heart: quiet sounds. Abdomen: soft, not painful on palpation. ECG: sinus rhythm, HR about 60 / min, normal, RR' in V1-V3, deep S waves in the D2, D3, and aVF, ST segment elevation in leads V1 and V2, the slight depression of the ST segment of the D2, D3, aVF, T wave negative in V4 and V5. IV line is placed, given analgesic amp. Zodol by i.v. bolus, and solution of NaCl 0.9% 500ml. During transport: patient states that the pain is weaker and that she feels a little better. In admission department of the hospital doctor on duty was given the data on the state of the patient with suspected aortic dissection. Patient remained under observation. Next day, 01.03.2017. at 12:15. we received a call for a patient that was found unconscious on the bathroom floor. At 12:20h medical team was on site and finds a female, age 46 years, with no vital signs. Medical team declares exitus. When taking the patient data from medical records, doctor learns that the deceased, after examination in ED day earlier, was transported to a hospital, where he was released after a few hours as mild hypotension, with advice to take additional tests.
Discussion: dissecting aortic disease is very difficult to diagnosis. It is often made only at autopsy. The clinical picture due to the severe pain may resemble a heart attack. However, the characteristics of the pain, which is very intense and migrating, can direct thinking towards aortic dissection. Although the cause of the disease was high blood pressure at the time of intimal tearing, or onset of pain, patients were markedly hypotensive, as was our patient. Blood pressure was measured in both arms, because of the possible existence of differences, in this case could not be found. Ischemic changes in the ECG pattern with patient appearance, with extremely pale skin and visible conjunctiva, indicate a loss of circulating blood volume (result of blood loss of in false lumen), rather than myocardial infarction in the development (this was later confirmed at the hospital, where they found low levels of HGB).

Given the seriousness of the working diagnosis, with emergency transport of patient to the nearest hospital volume replacement and oxygenation was indicated. After we administration of analgesics i.v. and 500ml crystalloid, condition of the patient during transport subjectively improved, and at the admission blood pressure also improved: 110 / 70mmHg.
This is the moment in the proces of patient management from the EMS to the hospital, that can distract clinician from working diagnosis, written by emergency physician, what happened in this case. Patient was diagnostically treated in the direction of myocardial infarction due to chest pain and ischemic changes on the ECG. In doing so they ignored other aspects of the patient's condition.
Conclusion: Cooperation of physicians in pre-hospital and hospital levels is essential to timely complete the diagnosis and treatment of emergency conditions, which is especially important for diseases with a high mortality rate, which includes dissecting aorta.
Keywords: Lack of communication, dissecting aneurysm, HMP

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Abstract number:017

RISK OF CONVERSION DURING LAPAROSCOPIC URGENT CHOLECYSTECTOMY

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Introduction: Acute cholecystitis is defined as inflammation of the gallbladder and usually occurs due to cystic duct obstruction from stones or sludge. Laparoscopic cholecystectomy is the standard treatment for acute cholecystitis. Gallbladder disease is among the leading causes for hospital admission for acute abdomen among adults and the most common indication for acute abdominal surgery in the elderly. The risk of conversion to an open procedure is higher in laparoscopic cholecystectomy for acute cholecystitis than it is in an elective procedure.
Methods: This study is based on the data of 167 patients with acute calculus cholecystitis hospitalized at the Clinic for Emergency surgery, Emergency Center, Clinical Center of Serbia, during 6-months period (January to June 2016).
Results: Laparoscopic cholecystectomy was done in 167 patients of which 27 (16.2%) were converted to open surgery. In our study multivariate logistic regression identified C-reactive protein (CRP) over 200mg/l, age over 65 years, diabetes, gangrene of the gallbladder and an abscess as main risk factors for conversion. Complications were experienced by 6 (3.6%) patients.
Discussion: Acute calculus cholecystitis with high CRP, gangrene or an abscess increase risk of conversion. Early treatment of acute calculus cholecystitis might minimize the risk of bile duct injuries and need for conversion.
Keywords: Acute cholecystitis, Laparoscopic cholecystectomy, Conversion, Open cholecystectomy

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TRANSIENT INSULIN RESISTANCE DURING THE URGENT LAPAROSCOPIC VS. OPEN CHOLECYSTECTOMY

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Introduction: Insulin resistance develops after surgery as a part of the stress response to surgery. The aim of our study was to investigate weather surgical stress induces alterations in insulin sensitivity in the course of urgent cholecystectomy performed in two different procedures: as open surgery and as laparascopic operation.
Methods: The homeostasis assessment model (HOMA) was used to determine insulin sensitivity before and in the first, third and seventh day after the operation. Patients were divided in two groups: group A (open cholecystectomy; n=30; mean age 38,0±3.3; mean BMI 26.8938±1.5679kg/m2) and group B (laparoscopic cholecystectomy; n=60; mean age 39.6±4.1; mean BMI 26.5867±1.8531kg/m2).
Results: There were no diferences in HOMA IR index between group A and B before the operation (mean 2.4010±0.3230 vs 1.9798±0.6985 ; p>0,05) as well as for first postoperative day (2.5448±0.6044 vs 1.8370±0.5714; p > 0,05) and day seven after operation (0.6494±0.4349 vs 0,7232±0,3898; p> 0.05). Group B had higher HOMA IR index at day three (7.5619±2,3360 vs 2.8016±0,7670; p< 0,05).
Discussion: There was transient increase in HOMA index after the operation in both procedures, compatible with deterioration in insulin sensitivity due to stress response that is normalized a week after the operation. The use of HOMA-IR may be useful for fast and easy determination of insulin sensitivity changes in perioperative period in abdominal surgery.
Keywords: Laparoscopic cholecystectomy, Open cholecystectomy, Insulin resistance, HOMA-IR

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Abstract number: 019

„OVERCROWDING“ IN PESRONAL EXAMPLE

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Introduction: Overcrowding of Emergency Departments (ED) is not only a problem in Serbia, but a global problem. Training of health workers, access to primary health care, informing patients about what is the emergency departments line of work, can reduce overcrowding and facilitate the work of staff, and therefore reduce likelihood of medical errors to patients from the first to the third level of urgency.
Method: Retrospective and comparative data analysis from Emergency Department Zajecar and comparative analysis in relation to the global standards.
Results: For the period from 01.09.2016. to 31.03.2017 in ED of ZC Zajecar there were 9671 patient visits. According to the level of emergency of these 9671
1. level of emergency (life threatening emergency condition - red level), 24 (0.25%)
2. level of emergency (very urgent conditions – orange level), 660 (6.82%)
3. level of emergency (emergency conditions - yellow level) 3203 (33.12%)
4. level of emergency (less urgent conditions – green level), 3937 (40.70%)
5. level of emergency (not emergencies - blue level of emergency) 1786 (18.46%)
Other 61 patient (0.63%) – gave up exam.

12.05% of patients were brought by the emergency ambulance while the remaining 87.95% of the patients came without referral - direct arrival in the Emergency Department Zaječar.
Discussion: In the period of 7 months Department had 9671 patients. Our triage scale consists of the five levels of urgency:
01. LEVEL OF EMERGENCY (RED) – immediate life saving treatment (unconsciousness, shock of any etiology, respiratory and cardiac arrest, massive burns, epileptic and asthmatic status, amputation of extremities)
02. LEVEL OF EMERGENCY (ORANGE) - very urgent conditions (patients accompanied by SHMP, chest pain-ACS, stroke, intracranial bleeding, acute psychosis, poison, injury to major blood vessels, vomiting of blood, sudden onset of dyspnea, hypoglycemia, abdominal pain with disorder of vital parameters, foreign bodies in the respiratory and digestive tracts, heavy vaginal bleeding, head injury, sexual abuse, septic conditions, serious disturbances of the heart rhythm, domestic violence)
03. LEVEL OF EMERGENCY (YELLOW) - emergency conditions (abdominal pain, headache, dizziness, hypertensive crisis, stable or unstable angina, epilepsy, allergic reactions, prolonged vomiting with signs of dehydration, fever for more than 40 degrees, contusion injuries to the chest and abdomen, condition after losing consciousness, extremity fractures, foreign bodies in the eye, transient ischemic attacks)
04. LEVEL OF EMERGENCY (GREEN) - less urgent conditions (high temperature, high blood pressure, prolonged cough, diarrhea, constipation and retention of known etiology, dog bites without large injury, depression, migraine, pain in the ear, minor cuts, distortions of joints, phlebothrombosis)
05. LEVEL OF EMERGENCY (blue) – not emergencies (the common cold, back and joint pain, painful menstrual periods, frequent pain in the stomach, psychiatric problems, insect bites without signs of allergy, toothache)
Compared with global research we came to the conclusion that there are no significant differences compared to the results of our analysis. They also concluded that between 13 and 18 percent of patients of 5th degree of urgency may be managed in pre-hospital settings of health care system.
Conclusion: In order to prevent medical error in these patients, we decided to do make our triage scale in the form of informative posters for patients as well as education of employees in emergency department for the goal of better triage.
Keywords: overcrowding, triage, levels of emergency, emergency department

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Abstract number: 020

RESCUING A POLYTRAUMA PATIENT FROM THE EXTREMELY DIFFICULT NATURAL CONDITIONS

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Introduction: Polytrauma is injury comprising of at least two different organs or organ systems. Polytrauma has high third place as a cause of death, and in the population of 1 to 44 years it is in the first place. In treatment of the injured person initial treatment is of great importance. Accordingly certain protocols and sequence of actions should be determined. We should first check the vital signs, breathing, consciousness, heart rate, whether there are visible signs of bleeding and shock. Ensure airway and venous access, stop bleeding, immobilization and reducing intracranial pressure, all the time fight shock, circulatory volume compensation, analgesics, oxygen therapy.
A very important finding is bradycardia (slow heart rate), which can be up to 40 - 50 beats per minute and can serve as an indirect indicator of intracranial pressure.

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Materials and methods: Data taken from the Emergency Department protocol Vlasotince number 13875 from 03.09.2016.
Case report: Call was received at 19:40 for man C.M. 38 year old, who had been in a traffic accident roll over of tractor in forest road and that he is in critical condition. Medical team departs in the first minute to the village Kruševica with ambulance by dirt road exactly 17 km to the forest road where we could not continue without off-road vehicle. We were lucky that cousin of injured person was there with off-road vehicles and the team goes 3km into forest by muddy forest road. Last 300m we had to walk carrying all equipment and spinal board. We reached injured patient at 20:40 and it was already dark. We found the victim in the forest road in a very severe condition. We immediately did primary trauma exam with ABC approach and then quick head to toe trauma exam. Blood pressure was not measurable, radial pulse could not be palpated, carotid was fast, porely filled with frequency of 110 per minute, heart was rhythmic and accelerated, the frequency of breathing 12/min, respiratory sound normal, skin and visible mucous membranes pale, lips cyanotic, oxygen saturation 92, GCS 13 he talks but he is disoriented. On the left side of forehead and scalp there were abrasions with fresh and dried blood. There is pain the left arm, left chest, left hip and left thigh. Our therapeutic treatment: patient immediately placed cervical collar, injury on the head is treated, vacuum splint is placed on the upper thigh and patient is placed on a spinal board, two venous lines are placed for administration of 500ml Ringer's solution because our assessment was that he was in moderated shock (loss 20% to 40% of circulatory volume). Patient was transferred to ambulance. He was on supplemented oxygen 12l/min, analgetic and Dexason 8mg is given. During transport with the control of the vital functions additional 1000ml Ringers solution is administered. After diagnostics in the emergency department in Leskovac, patient was transported to KC Niš. By subsequent review of medical records, we found that patient had a head and chest contusion, pelvic fracture and ruptured bladder.
Conclusion: The quick arrival at the scene, early access to severely traumatized patients, emergent management are by guidelines for severe trauma protocols and quick transport to the nearest health facility increases the likelihood of survival.
Key words: polytrauma, protocol, transport.

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Abstract number: 021

ACUTE HEART FAILURE IN ATHLETE - CASE REPORT

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Introduction: Insufficiency of myocardium is often caused by myocarditis, and also in other pathological conditions and in younger patients may have significant clinical presentation.
Materials and methods: By case report, we present male patient, active professional athlet, who developed state of severe heart failure, accompanied by cardiac arrhythmia, and severe valvular insufficiency.
Case report: Patient 24 years old came to the doctor because of very strong fatigue - so that he has sit down and rest after minimal effort, expressed fatigue, pain in the front left side of the chest (which spread to the left shoulder) and enhanced sweating. These problems were present for the last two months, but gradually grew in intensity. During ECG recording multiform ventricular premature beats were registered, QS with ST-segment elevation in leads V1-V2 and ST depression in V5-V6, D1-D3 and AVF. On auscultation, strong murmur over entire precordium could be heard, while the ultrasound recorded extremely enlarged left ventricle of 8.3 cm in diastole, with global hypokinesis and decreased ejection fraction of 20%. There was also a significant mitral and aortic insufficiency, with an enlarged right ventricle. Patient was immediately sent to regional cardiology clinic where he was hospitalized where coronary

angiography was normal. Subsequent studies have shown a high degree of suspicion of myocarditis, as the probable cause dilation and heart failure.
This is supported by the fact that he was a professional athlete, who regularly underwent exams and that earlier medical findings were normal. At the personal request he left the hospital and after few weeks of home treatment and rest came to other cardiology facility, where it was decided to try cardiac surgery, but unfortunately he passed away at his house. No autopsy was performed.
Conclusion: Acute myocarditis was probable primary cause of heart dilatation and heart failure accompanied by valvular insufficiency, which resulted in death.
Keywords: heart failure, myocarditis, arrhythmia

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Abstract number: 022

TREATMENT OF OPEN MULTIPLE FEMORAL FRACTURES BY EXTERNAL FIXATOR

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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: external fixator, femur, open fracture.

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Abstract number: 023

OXYGEN POISONING AS A SIDE EFFECT OF OXYGEN THERAPY

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Introduction: Oxygen poisoning is harmful effect of oxygen, which may occur in the cells and tissue of living beings. Toxic effect of oxygen was first described in 1899 by physiologist Smith. He concluded that breathing of oxygen is irritant to the lungs and causes inflammation and congestion.

Data source and choice of material: Retrospective analysis of the literature with settings: "toxic effect of oxygen, damage to organs and organ systems, prevention of oxygen damage. Searching is done through: PubMed, Medline and electronic journals accessible via KoBSON as well literature available in the Library of the Faculty of Medicine.

Results of the synthesis: Oxygen is necessary for the functioning of the cell and maintenance of life, but on the other hand universal poison which inhibits the enzymes important for the metabolism. Oxygen molecules are not responsible for damage of cells, but numerous oxygen radicals or peroxides which are formed in the course of rapid metabolic changes during period of hyperoxia. Although oxygen therapy is useful in many states, its uncontrolled use can lead to poisoning. Therefore, for safe application of oxygen appropriate knowledge of possibly harmful effects, its clearly defined use (correct dosing) and use of a permanent monitoring (follow) of patients vital parameters for the purpose of rapid recognition of the initial manifestation of toxicity is needed. Changes that occur in the body as a result of the toxic effect of oxygen can be divided into 3 groups:

1. Toxic effect on the central nervous system (Bert effect) is manifested as: tinnitus, muscle fasciculations of face, neck and hands, but also as spasms of the diaphragm with difficult and irregular breathing. Continued exposure to hyperoxia can lead to nausea and dizziness, changes in behavior, uncoordinated movements and in the worst case seizures and loss of consciousness; also neurogenic pulmonary edema may develop.
2. Toxic effects on the lungs and respiratory function (Smit effect) manifests as: irritation of mucous membranes of the upper airways, intensive irritant cough, dyspnea and chest pain, and in severe cases clinical presentation of ARDS (as a result of damage to the epithelium, capillary congestion and exudation in alveoli)
3. No toxic effects in the eyes - may occur in newborns who breathe 100% oxygen in an incubator in the form of retrolental fibroplasia and blindness (as a consequence of hyperoxic vasoconstriction of blood vessels of the retina).

Oxygen poisoning can be manifested in two forms: acute (dominated by changes in the central nervous system) and chronic (dominated by changes in the lung). Inhalation of pure oxygen ($FiO_2 = 1.0$), adverse effects appear after 6-12h; at $FiO_2 = 0.8$, damage occurs upon 24 hours, and at $FiO_2 = 0.6$ after 36h. Shorter the use (24-48h) of lower oxygen concentration ($FiO_2 \leq 0,5$) is extremely rare accompanied by symptoms and signs of oxygen poisoning.

Conclusion: You should always respect the rule to use oxygen in the lowest possible concentration and for the shortest possible time required to achieve the desired effect.

However, regardless of the side effects, not one patient should be deprived of oxygen during resuscitation.

Keywords: toxic effects of oxygen, damaging organs and organ systems, to prevent oxygen damage

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Abstract number: 024

SIGNIFICANCE OF LABORATORY ANALYSIS OF BLOOD AT AN EARLY STAGE OF TREATMENT OF PATIENTS WITH GUILLAIN-BARRE SYNDROME IN HOSPITAL CONDITIONS

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Introduction: Guillain-Barre syndrome (GBS) is an acute immune-mediated motor - (sensitive) - (vegetative) neuropathy, the mostly predominant demyelination type and in about 70% of the patients the occurrence of diseases (from one to several weeks) is preceded by a "critical event" (infections, possible vaccination, surgery, etc.).
Method: We present results of serum laboratory analysis of 57 patients (37 males), mean age 50 years, with Guillain-Barre syndrome after hospital admissions, prior to the implementation of diagnostic procedures and therapeutic treatment. We analyzed the following laboratory parameters: sedimentation (SE), number of leukocytes (Le), C-reactive protein (CRP), and electrolyte status, sodium (Na), potassium (K) and calcium (Ca) in serum. We excluded from the study patients who had diabetes, alcoholism, malignancies or any other disease that could cause neuropathy. For statistical analysis of data we used Student's t test and Pearson's correlation analysis.
Results: Increased values of SE were found in 31.6% (18), Le count at 26.3% (15), and CRP at 22.8% (13) patients with GBS. Signs of hyponatremia were registered in 14% (8) and hypocalcemia in 12.3% (7), and hypokalemia in 5.3% (3) studied patients with GBS. Significant mutual correlation was not registered ($p > 0.05$) between the values of SE, Le and CRP. Also, there was no significant correlation ($p > 0.05$) between the level of SE, and the values of Na, K and Ca in the serum. The correlation between CRP and the level of Na and K in the serum was not significant ($p > 0.05$), while statistically significant negative correlation between CRP and Ca levels in serum ($p < 0.05$) was registered. Statistically significant negative correlation between number Le of the values of Na ($p < 0.001$) and Ca ($p < 0.01$) in serum, while correlation between the number of Le and the level of K was not significant ($p > 0.05$)
Discussion: In the early stages of hospital stay of patients with GBS (prior to the implementation of diagnostic procedures and therapeutic treatment) is very important to monitor values of the laboratory analysis of blood, in particular electrolyte status, since this study showed hyponatremia registered in 14%, hypocalcemia in 12.3%, and hypokalemia in 5.3% of the analyzed patients with GBS immediately after admission to hospital. Untimely and inadequate correction of electrolyte can lead to deterioration in patient state. Abnormally high levels of SE, Le and CRP in serum of patients with GBS are not specific finding, but it can be a greater or lesser extent, in some patients with GBS, brought into connection (direct and / or indirect) with a previous infection. According to the study results, the increase in the number of Le may be associated with a decrease in the level of Na and Ca in the serum of patients with GBS, but the cause and the precise mechanism of these relations so far is not entirely clear.
Keywords: Guillain-Barre syndrome; laboratory analysis, treatment.

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Abstract number: 025

POISONING WITH AMANITA PHALLOIDES

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Introduction: Mushrooms poisoning is most common in spring and autumn, the season of heavy rainfall and their propagation. The largest number of mushroom poisonings is not life-threatening and recovery is good. Symptoms of gastrointestinal tract within three hours of

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ingestion are indicating that the outcome with no therapy will be good, in contrast to the Amanita phalloides poisoning, when the symptoms appear after 6 hours. Amanita phalloides (death cap) comprises two toxins: phallotoxin and amatoxin, which is one of the strongest known toxins. The median lethal dose of amatoxin is 0.1-0.3 mg / kg body weight, and one cap of mushrooms may have 10-15mg of this toxin. Symptoms of Amanita phalloides poisoning, unlike other mushrooms poisoning, occur within 6-24h of ingestion. Phallotoxin acts first, which may damage the gastrointestinal tract and lead to profuse vomiting and diarrhea. Sometimes ther is a fever. Amatoxin binds to plasma albumin and leads to damage of many organs. After 24-48 hours from the ingestion it causes liver failure, and between 48-72h renal failure, and after the third day of ingestion heart failure. Therapy should begin immediately by administration of activated carbon or gastric lavage and antidotes (Penicillin G and optionally silibinin), which prevent binding of amatoxin to plasma albumin. In addition, plasmapheresis with aim to remove toxins bound to plasma albumin.

Case report: The patient was referred from the Health Center Aranđelovac with suspicion of mushrooms poisoning, which she ate three days ago with her husband (she picked mushrooms herself). Two days after eating mushrooms she had persistent vomiting, runny stools and severe weakness. A suspicion of hepatotoxic syndrome caused by Amanita phalloides poisoning was made and patients was admitted to the Emergency Center Kragujevac, from where she was transferred to the clinic for gastroenterology KC Kragujevac.

Patient went trough diagnostic, which confirmed hepatotoxic syndrome without renal impairment due to poisoning Amanita phalloides. Ultrasound reviled free fluid in the abdominal cavity, and the X-ray confirmed right sided pleural effusion. Prominent rise of transaminase levels was verified at admision AST 526 IU / I and ALT 2,836 IU / I. Patient denied previous diseases. Patient was at the clinic from 14.09. to 22.09.2016. During treatment crystalloid solutions, penicillin G, sylimarin, Hepamertz ampoules and spironolactone were used. After seven days, there was a withdrawal of hepatotoxic syndrome and confirmed (AST 53 U / I and ALT 810 IU / I) and she was discharged home in good general condition, with a advise for mandatory regular consultations by toxicologist.

Conclusion: Picking and collecting mushrooms should be left to experienced, thus avoiding the risk of possible poisoning. After ingestion of mushrooms, with the appearance of any sign of poisoning it is necessary to contact emergency service so that such a serious condition could be diagnosed in time.

Keywords: Amanita phalloides, hepatitis, poisoning

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Abstract number: 026

THE SIGNIFICANCE OF OBSERVATIONS IN THE EARLY PHASE OF TREATMENT OF PATIENTS WITH CRANIOTRAUMA - CASE REPORT

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Introduction: Unclear, insufficiently defined conditions are quite common in emergency medicine, where physician in ambulance or hospital emergency unit is in a position to see the patient first and on the basis of available diagnostic methods to bring for patient very important decision. However, this path (from symptoms to diagnosis and therapy) is sometimes very problematic and tortuous.

Materials and methods: Case report of a patient with craniotrauma, whose clinical presentation at admission and during observation was for long time nonspecific.

Case report: At 17.33h patient IS (28) was brought to ED Zaječar by EMS Zaječar. The reason for referral was due to collapse. Patient was unconscious for a few minutes (until the arrival of EMS). She did not shiver and she was not incontinent. When she fell she struck her head.

Hethero anamnestic data were obtained by a friend: stuffy rooms, hard day at work, loss of appetite for previous few days. Exam determined following: patient was conscious, oriented, weak, pale, complaining of a headache in right frontal part where we can see hematoma. She vomits once during the exam. Complains of dizziness and fatigue. Cor: rhythmic heart rate, clear tones, without murmur. Pulmo: normal respiratory sound. Abdomen: at the level of the chest, soft, respiratory mobile, painless to superficial and deep palpation. Bowel sounds audible. BP = 150/90 mmHg, ECG: sinus, normal axis HF 7o/min, with no changes in ST-T segment. Extremities: without swelling and deformity. Peripheral pulses are present, symmetrical palpable. Neurological examination: pupils equal, circular, normally respond to light. No nystagmus. Romberg can not be performed due to patients fatigue (initially only tolerates lying position). Preserved GMS, without a clear lateralization, MTR normal. Babinski negative. Meningeal signs negative. (Neck free, not rigid, Kernig, Brudziński negative). The patient was monitored ECG, BP, SpO2, respiratory rate. Initial therapy: salt. Mannitol 20% IV amp Novalgetol, Amp Klometol. Diagnostics: Craniogram (17.43h): normal findings. Laboratory (issued at 17.37h, the result came in at 18:45) in the normal range. After treatment, patient feels better, less headaches, BP 120/70, can stand up. Repeated neurological examination is unchanged. Patient, accompanied by her mother and sister went to the bathroom, where during an effort defecation lost consciousness again. She was hastily returned to monitoring. Neurologist was consulted (request 19.57h, 20.33h realization): somnolent but oriented. Less positive Romberg. Cranial CT scan (20.56h), the signs of massive haemorrhage with the penetration of the blood in the fourth chamber. There are no clear signs of bone trauma. The patient was transported to the NHK Nis, where she underwent surgery and recovered successfully. The reason was not bleeding craniotrauma but ruptured aneurysm.

Discussion: Several fact is, we have to admit, however, disrupt the flow of thinking. First of all heteroanamnestic data completely distorted picture of the whole situation. Medical history matched with data that is given by friend and additionally diverted attention. Recovering of patient (cessation of headaches and dizziness) was another step that masked the true condition. Regular data from the monitor, normal laboratory findings and craniogram, nonspecific finding in neurologists exam continued a string, so the findings on CT scan were a surprise for everyone. Nevertheless, thanks to expectant attitude during the observation and the fact that the patient lost consciousness during defecation (where suspicion of a serious event prevailed), patient was referred for CT where successful diagnose was set.

Conclusion: We emphasize the importance of observation not only for trauma, but for each patient without sufficiently clear condition and / or without fully completed diagnostics in ambulances or ED. We should beware quick and easy diagnosis, and primarily the prehospital and early hospital level, when the clinical presentation is not yet be fully developed.

Keywords: observation, craniotrauma

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Abstract number: 027

WOLF - PARKINSON - WHITE SYNDROME IN PREGNANT WOMEN

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Introduction: In the normal heart, atrial pulses may be conducted to ventricles only via AV node. Pre-excitation (activation which is earlier than that of normal) happens when pulse from atria circumvents normal atrioventricular slowing and is conducted to the ventricle. In the preexcitation syndromes there are connection paths linking the atrium and conduction system of the infranodal fibers in which there are no delays of pulses as in the AV node, or connects the atrium and ventricle. Therefore, atrial impulses are much faster conducted accessory paths and activation of ventricles begins before impulse conducted trough AV node is conducted to

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ventricle. In patients with the WPW syndrome attacks of paroxysmal supraventricular tachycardia (PSVT) are common, which are mainly caused by the circular motion fast frequency impulses, which may first go through the AV node and then through the accessory paths or vice versa. WPW syndrome is in ECG characterized by a short PR interval, widened QRS complex due to the presence of delta waves in the upward part of R wave. In patients with atrial fibrillation irregular normal ventricular complexes could be rarely found and more often ventricular complexes with delta waves.

Case report: In April this year in Emergency department came patient, 30 years old, complaining of pounding heart and that she said that she was seven months pregnant. She also says that such palpitations she had in October last year, she was treated for WPW syndrome, and that three years ago, in Germany, she had cryoablation. In a previous pregnancy she also had palpitations. ECG showed WPW syndrome, heart rate 212/min. Patient takes tablets Metoprolo XL 47mg, 1 + 0 + 0. Patient was referred to the Department of Cardiology, where she was treated with an ampoule of Adenosine 6 mg, intravenously, after which there was slowing heart rate, which is verified with ECG, heart rate was 73/min. At the clinic, patient underwent ultrasound and biochemical examination and evolutionary findings have not been established in relation to the previous one.

Conclusion: It is very important to recognize the WPW syndrome in patients, because PSVT can resemble WPW syndrome, and they are treated differently and errors that may arise from the failure to recognize it, can be fatal.

Keywords: WPW, arrhythmia, adenosine

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Abstract number: 028

RARE CASE OF GALLBLADDER WALL HYPERTROPHY AND EVEN RARER SYMPTOMS OF THE DISEASE

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Introduction: Thickening of gallbladder wall could be seen during surgery according to some authors in about 9% of all cholecystectomy cases, mainly in patients in the fifth decade, more often in women. The basic characteristic is hypertrophy of muscular layer and proliferation of the epithelium to a greater or lesser extent. There are three morphological types: generalized, segmental or localized. The etiology of the disease is unknown, it is believed to be associated with chronic inflammation of the gallbladder but not with calculosis. One of the mechanisms for the development could be a spasm in the output part of the gallbladder. Strong contraction of the gallbladder, which is trying to overcome this spasm in time can lead to hypertrophy of the mucosa and muscle layer. In particular studies it has been reported that the congenital factors (long, narrow and tortuous cystic duct) may be the cause.

Case report: Young woman, 42 years with complaints of frequent urination that lasts a long time but she is now reporting that for the first time. Patient is 155cm tall, 42 kg, BMI 17.5. Physical examination of the patient, vital parameters and laboratory tests (urine, blood count and classical biochemistry) were within normal limits. Because of these complaints, she was sent to the EHO of abdomen. EHO abdomen: liver normal size, with no visible pathological changes in the parenchyma, gallbladder is about 18 cm in size and with fundus it is leaning on urinary bladder, bile ducts show no content. Wall of gallbladder is thickened without delaminating. Findings on other abdominal organs are normal. Patient is prepared and operated on with classic elective cholecystectomy. The postoperative course was regular. Control one month later showed that patient had no more problems.

Conclusion: Although the patient had symptoms suggestive of urinary tract disease, careful ultrasound of the abdomen found atypical cause of its problems. The fact that patients of small

constitution and very thin explains the position of gallbladder and its leaning on the fundus of the bladder.

Keywords: hypertrophy of the gallbladder wall

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Abstract number: 029

HAND-FOOT-AND-MOUTH DISEASE-HFMD

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Introduction: The Hand-Foot-and-Mouth Disease (disease of the hands, feet and mouth) is a contagious viral infection common in preschool and school-aged children (usually between 5 and 10 years) caused by the non polio enterovirus usually coxsackie A16 and A10 and the human enterovirus (EV71). It can also occur in older children and adolescents. The most common route of infection is oral. EV71 epidemic was first described in 1970 in different countries in America, Europe, Australia and Asia. Large epidemics occurred in 1998 in Taiwan, where 405 children were hospitalized because of severe neurological complications and 78 died. China in 2008 recorded 490 000 infected and 126 dead children. In our region (Bulgaria) in 1975 there was a big epidemic with 140 cases of paralysis as a complication of which 27 children died.

Data source and selection of materials: Retrospective analysis of literature with settings: "Hand-Foot-and-Mouth Disease. Searching is done through: PubMed, Medline and electronic journals accessible via KoBSON as well literature available in the Library of the Faculty of Medicine in Niš.

Results of synthesis: The disease in addition to the virus Coxsackie A16 can be caused by other types of enteroviruses, which are usually transmitted through respiratory or trough stool and content of the vesicles. Period of incubation lasts three to six days. After enteroviruses enter the intestine and penetrate the intestinal mucosal barrier, they are able to reach the spinal cord, brain, meninges, heart, liver, skin, nails, and to other organs causing relevant clinical symptoms. Most of the patients have fever, skin changes on palms, soles or buttocks. However, some patients quickly develop neurological and systemic complications, such as acute flaccid paralysis, encephalitis, affecting medulla causes cardiopulmonary dysfunction, myocarditis and severe respiratory infections that can be fatal. Fever and high body temperature are often the first signs, followed by sore throat, loss of appetite and fatigue. Usually 1-2 days after the onset of the disease, there is a rash on the palms and soles of the feet, sometimes on the buttocks. Changes on the palms and soles do not itch, can be seen as macula papular rash, sometimes receive a form of vesicles on the tongue, gums and inside the cheeks. The most common complication of the disease is dehydration, which occurs when children refuse to take liquid because of throat pain. Some studies have shown that in the most severe forms of disease there is a dominance of mails and the absence of changes in the skin and mucous membranes. Preliminary results of several studies provide evidence that phentolamine reduces mortality and relieves symptoms of severe complications of the disease. Patients remain infectious when symptoms subside even for couple of weeks. Onychomadeza is late complication occurring four to six weeks after disease and represents the spontaneous separation of the nail from nail bed. Early application of esmolol can effectively stabilize vital signs in children with severe heart failure.

Conclusion: HFMD is an infectious viral disease, which is easily recognized by the typical changes in the skin. In the treatment of children with these symptoms we should think of severe complications and even the possible lethal outcome.

Keywords: Hand-Foot-and-Mouth Disease

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Abstract number: 030

WHEN YOU HAVE IT ALL - CASE REPORT OF A PATIENT WITH PTE

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Introduction: The incidence of pulmonary thrombo embolism (PTE) in the general population is about 1 per 1,000 per year (slightly higher number of the elderly). In the book, "Tintinalli Emergency Medicine, A comprehensive Study Guide" (the most important books in the field of emergency medicine) says "Shortness of breath is the most common symptom that occurs in 90% of patients with a diagnosis of PTE. Therefore, the presence of unexplained dyspnea is sufficient to start the diagnostic evaluation in that direction". This is a clear and important recommendations was our guiding principle in making a diagnosis, ie. suspected PTE.
Case report: Emergency medical team received a call at 11:30 am, for a patient who had a feeling of shortness of breath. Call was marked as 3rd line of emergency. Upon arrival we found a patient NN age 76 in bed in a half-seated position. Slightly pail skin color, dyspnoea, tachypnoic and agitated. Relatives gave us information that patient had difficulty breathing all night, he has high blood pressure and due to hip fractures (which was not operated on) is in bed for 6 months. Vital parameters: BP 110/70mmHg; HF 120/min; RF 30/min; SpO2 80%; Gly 7,9 mmol/L, BT 36.9 C. Heart: absolute arrhythmia, mild systolic diastolic murmur over Erb; Pulmo: vesicular breathing on both sides, in right basal part there is medium large discrete rhonchus, with impaired respiratory sound. ECG: AF, discrete S1Q3T3, incomplete right bundle branch block, negative T from V1-V4, occasional VES. Extremities: left leg is shorter and the outer rotation, skin on both feet and up to half of the lower legs with trophic changes and signs of old scars from ulcers. Patient is placed IV line, monitoring, tbl ASA 300 mg, and transferred to the Cardiology Clinic with referral Dg: PTE in obs, AF de nuovo, incomplete RBBB. Upon arrival at the clinic, rapid ultrasound of the heart is done which showed enlarged right ventricle and confirms our diagnosis.
Conclusion: Medical history, physical examination, ECG and Tintinalli are key factors for the diagnosis in pre hospital settings.
Keywords: pulmonary thromboembolism

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Abstract number: 031

WHY CPR IS NOT STARTED BY SCA WITNESSES?

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Introduction: Sudden cardiac arrest (SCA) is a final adverse outcome of sequence of events in many emergency situations, usually in outpatient situations. The frequency IBSZ in Europe is 17-53 per 100,000 inhabitants. Due to the unsuccessful CPR in Europe each year about 350,000 people die. With inclusion of Serbia in international project EuReCa One with monitoring and epidemiological data IBSZ since October 2014, for the first time we got the opportunity to compare them with other European countries and regions.
Materials and methods: U HMP Kragujevac during the period from 01.01-31.12.2016 information on cases of out of hospital CSA, with fallow up of one-month survival of the patients in whom there is a return of spontaneous circulation (ROSC) were inserted into a unique "Utstain " form for methodology for monitoring SCD. The results were obtained using standard statistical methods, and the incidence presented for 100.000 inhabitants.
Results: During 2016 there were 373 cases of SCA, representing an incidence of 208.52 / 100,000 inhabitants. In 1/3 or 125 cases CPR was started (incidence of 69.88 / 100,000 inhabitants). In 92% of SCA was witnessed by the lay person, but before the arrival of EMS CPR

was started in only 6 cases (incidence 3:35 / 100000). Shockable initial rhythm (VF/VT) was recorded in 17 patients (incidence 9.5 / 100,000 inhabitants), while spontaneous circulation (ROSC) was observed in 15 people (8,39 / 100,000 inhabitants). A one-month survival was observed in 4 patients, with an incidence 2.24 / 100,000 inhabitants, which is 26.67% of the number of patients who established ROSC.
Discussion: Although the gold standard survival SCA represents chain: Eyewitness – early initiation of CPR - shockable rhythm, bystanders help is usually lacking and comes down to a phone call to the Emergency Department. The reason for this is lack of awareness about active participation in the provision of first aid and that initiating measures of basic life support (BLS) is actually buying time until the arrival ambulance. It is necessary to educate the population for early detection of SCA by eyewitnesses, promptly call the number 194 and the provision of BLS measures until the arrival of EMS. It is also necessary to establish an automated external defibrillator (AED) in the busiest public places, as well as training people to use them.
Key words: sudden cardiac arrest, CPR, EuReCa

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Abstract number: 032

PTE - CASE REPORT

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Introduction: Pulmonary embolism is the obstruction of the flow in the pulmonary artery and / or its branches caused by embolus, a foreign body or air which by circulation goes to lungs from distant part of the body. Pulmonary embolism is generally caused by a thrombus originating from deep veins of the pelvis or lower extremities that is deep venous thrombosis (DVT) and pulmonary embolism (PE) are practically inseparable sequence of events that modern medicine referred to as venous thromboembolism. According to frequency, PTE is in third place among cardiovascular disease with an annual incidence of 100 to 200 new cases per 100000. Cause of the disease is diagnosed in only 7% of cases, while the remaining 93% are not. Annually in Europe there are 6-20 cases per 10,000 inhabitants. 7-11% of patients has a fatal outcome. PTE is basically difficult to recognize because the symptoms vary depending on the scope of involvement of blood vessels as well as the health of the patient. PTE could present as asymptomatic, revealed by accident and the most severe forms in which the first and only manifestation is sudden death. Etiology explained by Virhow is development of thrombosis is emphasized by three factors: blood hypercoagulability, hemodynamic changes in blood vessel and endothelial damage.
Materials Methods: Case report of patient based on medical examination and logbook of UC KCCG. Data source is the patient protocol UC KCCG for 2017.
Case report: 56 years old mail came to ED because of discomfort in the chest followed by "feeling that he can not take enough breath", feel of palpitations and general weakness. Symptoms started back a few hours but they intensified for the last hour. He states that he has a sense that "someone is sitting on the sternum". He is a former smoker, does not drink alcohol, hypertension for 15 years, has diabetes for 5 years and takes OAM. For previous 2 years occasional feel of palpitations, goes regularly to cardiologist, holter monitoring was done 6 months ago and was regular – with no medical records. Positive family history for cardiovascular diseases. Physical examination: conscious, oriented, communicative, slightly agitated, eupnoic in rest, slightly pale, pulse 120/min; hypotensive, BP: 90/55 mmHg. Pulmo: discreetly diffusely impaired respiratory sound. Cor: heart rate rhythmic, clear tones, murmurs can not be heard. ECG: sinus rhythm, frequency of 120/min, RBBB. Two venous lines were placed, complete laboratory analysis including D-dimer, and cardiospecific enzymes taken, 0.9% NaCl 500 ml - 50 ml/h was administered. Patient was on monitoring with O2 4 l/min. Patient

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subjectively felt better. D-dimer increased fivefold and MSCT confirms PTE. Patient was immediately transferred to Coronary intensive care unit for further treatment.
Discussion: Modern aspects of thrombosis are based on the natural coagulation system which includes the balance of the coagulation and anticoagulation factors including the interaction of coagulation and fibrinolysis activity (nature of the thrombolytic activity). The risk of thrombus formation occurs when there is an imbalance in favor of higher coagulability, which is the case with thrombophilia (a genetic disease), malignant diseases (where the tumor itself makes procoagulant substances), so-called. paraneoplastic syndrome, during pregnancy, use of oral contraceptives, hormone replacement in menopausa. In suspected PTE apply scores to help assess the probability of PTE. With the help of Wales scores degree of probability can be defined as small, medium or large. Then there are the tests of blood parameters, particularly D-dimer test or radiological methods. D-dimer is in PTE almost always elevated, but not necessarily, this is very important in cases of small or medium probability. Golden standard in the diagnosis of PTE is considered pulmonary angiography with contrast. The degree of risk is assessed on the basis of PESI score - Pulmonary Embolism Severity Index on which type of therapy depends.
Keywords: pulmonary embolism, thrombus, thromboembolism, pulmonary artery

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Abstract number: 033

MEDICAL ERRORS IN EMERGENCY MEDICINE - FORENSIC EVALUATION

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Introduction: Most of the studies on medical errors are based on the outcome of the patients from inpatient medical treatment, which is why the frequency and nature of errors in emergency medicine are little known of. Medical errors in emergency medicine are among the "most preventable." The specific relationship between the degree of risk and possibilities of preventing medical errors in emergency medicine imposes on the need for identification of their incidence, nature and etiology, as well as creating sets of appropriate preventative measures.
Materials and methods: Forensic analysis of clinical practice and medical literature on the topic of medical errors in emergency medicine.
Results: Medical error in the broadest sense includes accidental damage to the health of the patient in the curse of provision of health care (medical treatment). Medical error does not imply the medical liability (professional foul). Factors that predispose errors in emergency medicine are:
- disparity between diagnostic and therapeutic possibilities, needs and expectations of the patient's family members;
- short time span within which it operates;
- unpredictability of the effects of drugs and medical procedures, individual characteristics of the body reaction towards certain complications of treatment (each human body is different, the individual response to a specific medical treatment can not be predicted accurately nor controlled);
- mental overload of the medical staff (cognitive burden of work), compromised teamwork;
- the nature and specificity of shift work, physical exhaustion of the medical staff;
- lack of systematic communication and feedback on the health status of patients cared for;
- the lack of adopted standards of treatment, treatment and education, technological equipment, organization of work, the organization of the health system and professional place in it .
Critical Care Medicine is classified in the group of medical specialization of high risk for error (surgery, obstetrics / gynecology, emergency medicine, anesthesiology and radiology). The group of "low-risk" includes the branches of preventive medicine, general and family medicine, psychiatry, immunology / allergology, endocrinology.

Conclusion: Detection, analysis, and finding a solution for the above factors represent the starting point in steps for overcoming and preventing medical errors in emergency medicine.
Keywords: medical error, emergency medicine, prevention

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WHEN BALSAMS OVERCOME MEDICINE

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Introduction: Sepsis is defined as life-threatening organ dysfunction caused by the inadequate response of the host to infection. Incidence of sepsis is growing, possibly with an aging population with multiple comorbidities and better diagnostics. Although its real incidence is unknown, estimations suggest that sepsis is a leading cause of mortality worldwide.
Case report: Man VP 49 years. (railway worker) was transferred from department of orthopedics to intensive care unit (ICU) due to the deterioration of general condition. After reviewing medical records we learn that disorder first started in the form of itching on the front part of right leg. As he noticed a change on the skin, before seeing his practitioner, he tried to treat himselfe. He used various ointments (calendula oil, Russian balm, balm made of honey and herbs, beeswax and egg ..). On the fourth day from the onset of the disease he goes to general practitioner who prescribes ung Synaderm and cold compresses. Since around skin change appears redness, swelling and pain patient on the seventh day, gets admitted to the Department of Orthopedics. Skin changes take shape of ulcers with swelling, redness and soreness of the whole lower leg, with the spread on the inside of the thigh. The patient was highly febrile 39C. Immediately upon admission antibiotic therapy was started: Amp Amikacin 500mg / 12h and amp Orvagil 500mg / 8h. Ultrasound of leg blood vessels was normal. On the second day after admission patient was without fever. On the third day patient becomes disoriented, hemodynamically unstable, repeatedly losing consciousness, additional analysis were done(MSCT, abdominal ultrasound, color Doppler). Patient was transfered to the ICU with a diagnosis of non specific sepsis. Vital parameters on admission: BP 85/50 mmHg; HF 135/min; RF 25/min; SpO2 90%. Lab: Le 22.4 (93.7 neu); Ery 3.73; urea15, creatinin 164, albumin low; D-dimer 839 (norm <500); Procalcitonin 3.93 (norm <0.05); acid base: PH 7.30, BE -6.3; lactate -3. diuresis was> 0.5 ml / kg / h. Swabs of the wound were taken for analysis, blood cultures, empirical therapy was initiated: Amp Meropenem 1g/8h, Amp Vancomycin 1g/12 h, along with other supportive therapy. The skin of the lower leg the next day develop bulas, which were surgically treated and dressed regularly. Hemodynamic recovery was after 48 h and complete recovery after 10 days.
Discussion: The new score, called quick Sequential Organ Failure Assessment (qSOFA) consists only of the three elements: altered mental status, systolic blood pressure of 100 mmHg or less, and respiratory frequency 22/min or greater. This score provides a simple criteria for identifying adult patients with suspected infection and possible sepsis. Guideline from 2016 recommends qSOFA criteria for physicians to more easily recognize organ dysfunction and start treatment already on the pre hospital level.
Keywords: balsam, phlegmona, sepsis, qSOFA

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Abstract number: 035

THE INCIDENCE OF ACUTE CORONARY SYNDROME IN EMERGENCY MEDICAL SERVICE IN BELA PALANKA IN THE PERIOD 2007-2017

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Introduction: Acute coronary syndrome is a group of different clinical conditions which may occur as a result of acute ischemia and / or myocardial necrosis caused by acute coronary lesions that are usually result of ruptured atherosclerotic plaque in a coronary artery with accompanying thtombosis, inflammation, vasoconstriction and microembolization.
Acute coronary syndrome can not be presented as: unstable angina, acute myocardial infarction with or without ST segment elevation or as sudden cardiac death.
Aim is to establish the incidence of acute coronary syndrome in the ten-year period.
Materials and methods: We used the descriptive epidemiological methods. Patient data were obtained from their medical records, protocols of patients who visited emergency department in Bela Palanka and from the Registry of coronary heart disease. The results were statistically analyzed, and the incidence rate is displayed on the 10000 inhabitants.
Results: There were a total of 90 patients who were diagnosed with acute coronary syndrome in the past decade. There were more men (67%). The most frequent manifestation was unstable angina pectoris 64%. The presented results of the emergency department largely reflect the state of health of the inhabitants of Bela Palanka, when it comes to coronary heart disease. However, inadequate data set on the application form of coronary artery disease and insufficient update of registry data have resulted in insufficiently accurate records of new cases of coronary heart disease. It is believed that in the whole Serbia number of registered persons with coronary heart disease is by far lower than the average number of deaths, as much as 20 times lower than the expected number of patients suffering from acute coronary syndrome. It is on physicians to adequately treat patient, and to adequately document their work. That way they will always have a clear picture of the health status of its citizens.
Keywords: coronary syndrome, emergency, incidence

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SPECIFICS OF RESUSCITATION OF DROWNING VICTIM

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Introduction: The environment in which we live imposes an obligation that we have to take into account the factors that can lead to illness and injuries, which are integral parts of the environment that surrounds us. All this can under certain circumstances and conditions, lead to damage to the body and consequently serious consequences for patients. Although it seems that this does not happen such damages are integral part of our lives and the environment in which we live. Regardless of the frequency of these injuries are accompanied by a high percentage of disability and mortality. No matter what is the cause of cardiac arrest, basic procedures are early recognition of drowning victim, early warning, asking for lay person and professional assistance, performing basic life support measures with quality chest compressions, early defibrillation and professional medical help when emergency team arrives. However, some specific situations in which victim can be found in, can lead to cardiac arrest and then it is necessary to do cardiopulmonary resuscitation. Drowning represents one of such a situation that the victim can cause cardiac arrest.
Method: Review of the available literature

Results: Because of mechanism of action, drowning has its own specifics of victim approach, therapeutic methods and resuscitation measures that differ to some extent by conventional methods of CPR. Basic life support measures differ in a sense that after confirming absence of breathing you continue with 5 ventilation. Besides that, CPR with compressions only is not recommended, because essentially cardiac arrest from drowning is basically due to hypoxia. Advanced life support measures are changed also in the ventilation part where pre-oxygenation is recommended prior to a procedure of intubation. Attention is drawn to the inaccuracy of the pulse oxymeter in determining the oxygen saturation. It is recommended, if available equipment allows it, to use PEEP (positive end-expiratory pressure). Need to eliminate the effect of hypothermia in a person suffering from cardiac arrest is emphasized. The most common complications that occur after drowning are impairment of brain function and lung.
Keywords: cardiac arrest, CPR, drowning

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FROM DNACPR TO ReSPECT MEASURES - IN WORLD AND IN OUR COUNTRY

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Introduction: Do Not Attempt CPR (DNACPR) is a measure that exists in many countries and is relates to the patient's wish not to be reanimated. It's a patients decision to be spared of CPR usually because there is nature of the condition or disease such that their chances for survival is small, when they are not ready to accept a potentially low quality of life after primary successful CPR, or for some other reason.
Materials and methods: Analysis of professional publications in medical journals and on the Internet.
Results: Different variant of DNACPR have been developed in different countries, so there are also: POLST (The Physician Order for Life Sustaining Treatment), MOST (Medical Orders for Scope of Treatment), CYPACP (Child and Young Persons Advanced Care Plan), CYPADM (Child and Yang Persons Acute deterioration Management), UFTO (Universal Form of Treatment Options) and others. Development ReSPECT strategy (Recommended Summary Plan for Emergency Care and Treatment), is underway which should cover all the possibilities for CPR-residence of the patient, home for the elderly, ambulance, hospital, the possibility of cardiac arrest in the presence of a physician who was not on duty and so on. In Serbia, DNA CPR is not regulated by law.
Discussion: There are people who do not want to be resuscitated, and legislation of many countries recognized their desire and right. The main objective for development of different forms of DNACPR is to facilitate and make easier for patients to decide on whether they want to be resuscitated, and to emphasis what are medical treatment measures that patient wants to accept. Any form of DNACPR do not excludes antibiotics, analgesics, chemotherapy, dialysis and other symptomatic and supportive measures. There are numerous problems related to formulation and respect of DNACPR. Studies have shown that patients, even though they do not want to be subjected to invasive measures of CPR, do not declare themselves against the measures of CPR because of fear that they will not get adequate help to the extent they would like. Some studies have shown that patients who have declared for DNACPR option rarely do blood tests, have shorter stay in the intensive care unit and are more frequent and earlier discharged from hospital. In Serbia, because of fear they will be accused of ill-treating, physicians especially in the pre-hospital setting, under pressure from relatives, the public and their own conscience, they often try CPR on patients with irreversible disorders where the chances of success are minimal, a potential quality life is low.

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Conclusion: Talk with the patient on the subject of prognosis, possible complications and the possibility of CPR is not easy. If the patient and/or doctor are not willing to talk about it, it may happen that the patient be subjected to attempt of CPR, which will not provide the desired results or quality of life after CPR will not be acceptable for the patient. Developing different DNACPR form provides patients to obtain most appropriate and potentially most useful medical measures for them in critical situations, and for health care professionals they could helpful in making decision to start CPR.

Keywords: CPR, DNACPR, Respect.

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Abstract number: 038

WARTHIN'S TUMOR IN THE MAXILLARY SINUS - CASE REPORT

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Introduction: Hildebrand in 1895 first described the heterotopic Warthin's tumor, which is extraparotid in 8%, and in the maxillary sinus is rare. They are asymptomatic and treated with surgical extirpation.
Method: Case report of a male patient 43 years old with Warthin's tumor in the left maxillary sinus. The patient was almost symptom-free.
Summary: On clinical examination over the roots of teeth 34 and 35 palpable growth of elastic soft consistency, about 2.5 x 2 cm in size, only slightly painful on palpation. Radiographic findings indicate the presence of cystic changes in the area of the front wall of the maxillary sinus. After the preoperative preparation, extirpation of cystic tumor was performed. Histopathologic findings showed that it is a Warthin's tumor. In cystic changes of maxillary sinus we must suspect the cystadenolymphome, which are rare, and timely surgical treatment can achieve good results.

Keywords: Warthin's tumor

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USE OF PROXIMAL C5 STUMP IN UPPER BRACHIAL PLEXUS PALSY

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Introduction: In patients with demonstrated traumatic upper brachial plexus injuries of C5-C6, the pooled international data strongly favors nerve transfer over traditional nerve grafting. However, in cases with infraganglionary lesions of C5-C6, functional satisfactory recovery could be achieved with nerve grafting.
Case study: In a 25-year-old man with an C5-C6 right brachial plexus palsy performed nerve grafting from C5 to musculocutaneous and axillary nerve three and half months after the injury. At the two-year follow-up assessment, the patient had full range of active elbow flexion, he was able to carry 20 pounds, and he had active abduction up to 60º with shoulder stabilization.
Discussion: Preoperative EMNG showed absence of sensory nerve action potentials and presence of motor action potentials in rhomboid muscle, serratus anterior muscle and paraspinal muscles at the level of C5. Cervical and cortical response was presented during

preoperative SSEP. Motor responses from TES (neurogenic MEPs) were recorded with bipolar hook electrodes, placed onto the spinal root C5 just distal to the intervertebral foramen. In contrast, neurogenic MEPs were absent from the middle trunk, upper trunk, and the lateral and posterior cords after TES.

Conclusion: Detailed preoperative evaluation and IOM are valuable and necessary in the treatment of brachial plexus and peripheral nerve injuries. We have to evaluate every patient individually, and in cases of infraganglionary injuries we need to consider using nerve grafting or its combination with nerve transfers.

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Abstract number: 040

THE CHOICE OF SURGICAL APPROACH FOR FRACTURES OF JOINT CONILE

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Introduction: Depending on the level at which there was a fracture in mandibular condyle , it often conditions and requires an adequate surgical approach for repositioning fractured bone fragments. Type fractures, clinical experience and commitment of surgeon conditions and access to the fracture. Bearing in mind the fact that that is the zone of distribution of n. facialis and vascular structures, there are different views that surgeon uses to determine the access. Usually it is approached by submandibular angular incision for repositioning and osteosynthesis of condylar fragments of the lower jaw, but this method is somehow limited for high-fractures because it does not provide sufficient transparency of the operating field and hinders the act osteosynthesis by limited small space.

Objective: Compare the results of applied transparotid access by Al-kayat Bramley in unilateral and bilateral fracture of the condyle fractures and subcondylar fractures with the results of previous approaches.

Materials and methods: Subcondylar fractures in world literature range from 17-53% of all fractures of the lower jaw. According to the classification of Zide and Kent (1980) described the "gold standard" in the treatment of condylar trauma with indications and contraindications for surgery of this region. The period of observation was from January 2006 to December 2016, when we had operated on 69 patients. The cut we used the "hokey stick," according to Al-kayat Bramley, it's endoural, transparotid joint approach. Post-operative clinical parameters which we were led by were degree of opening of the jaw, chin deviation in the act of opening of the jaw, the occlusal aspect, the function of the temporomandibular joint, radiographic imaging as well as other post-operative complications which entails fracture of the jaw: the existence of infection, fracture of the microplates for osteosynthesis, as well as permanent paralysis of the facial nerve. Only patients who have had an adequate number of teeth in order to establish key occlusion were observed.

Results: We studied a group of 69 patients with condylar fractures, of which 47 of them were with unilateral condyle fractures and 22 cases with bilateral fractures of mandibular condyle. Postoperative monitoring of patients was from 1 to 10 years. Occlusal adjustment obtained with the patients with intercuspid flap, with the degree of opening of the jaw of maximal 39 mm (maximum 44 and minimum 27mm) and a restricted opening of the mouth was reported by 3 patients, who after a physical treatment for 10 days corrected state to fit physiological limits. Diagnostic procedures reported by OPT imaging and computed tomography showed us a

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complete anatomic restitution of condylar fractures. Weakness of the face of transient type occurred in 7/69 patients (10.14%), we had no infection, fractures of microplates and permanent paralysis of the facial nerve. Performance success in completion of treatment method was 89.86%.
Conclusion: The choice of surgical approach in the treatment of fractures of mandibular condyle will largely depend on the experience of the surgeon and his assessment. Approach that we use proved to be justified, because it provides direct visibility of the operating field and the fractures, the act of surgery reduces surgical trauma and topographical relationship to the branches of n. facialisa and avoids permanent damage of it.
Keywords: fracture of joint conyle, Al-kayat Bramley approach, fixation with microplate

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Abstract number: 041

METHODS FOR THE TREATMENT OF INFECTIONS CAUSED BY FEMORO-INGUINAL GLUTELANE-REGIONS OF PATIENTS WITH CO-MORBIDITIES

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Introduction: Infections of elderly patients particularly burdened by numerous co-morbidities only complicate their general health and reduce the response to the new infection with them takes fudrojantni flow encompassing and extending into the surrounding areas from the points of origin and their development in fascial deeper areas, compromising the neurovascular structure. Their state of malnutrition favors the ongoing development of infection.
Objective: We want to show some of our solutions for the treatment of such condition of the patient and show our solutions for particular case.
Materials and methods: This paper is based on the patient material of 20 patients who were hospitalized at the Emergency Department of Surgery and Intensive Care Urgent Center KCS. These are the different state of development of various infections, primarily located in the femoral, inguinal and gluteal region. At a certain point the treatment we applied a number of these patients to active oxygen in hyperbaric chamber.
Results: Results show our treatment practices, gender distribution, early and late postoperative sequelae and ways of their resolution.
Conclusion: In this study we present our experience and knowledge that we have.
Keywords: infections, phlegmona, gluteal region, femoro-inguinal region

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Abstract number: 042

SUICIDE - THE FINAL DECISION

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Introduction: Life - continuous and relentless struggle for survival in a society ruled by various natural and unnatural forces, laws and lawlessness. Started from a desire for healthy offspring, love and passion for new life brings happiness, joy and caring responsibilities of parenthood. New life will be thrown into the fight with a strong inner strength and generous parental support heads towards the overall success. We are not all equal - not strong enough, and accessible to any kind of assistance and support. Natural end of all life's inevitable death, due to

longevity and age, prematurely due to incurable diseases or unfortunate circumstances or the individual's right to a final decision. Does the individual have the right to such a judgment about the meaninglessness of life and the chose suicide as the mean of death? Suicide - one truly serious philosophical problem requires a substantial answer. Collecting data on suicide attempts and suicides for a five-year period in the city of Krusevac for PU Krusevac and seeking for answers essentially imposed many questions and finding adequate answers which actually represent the objective of the work. From the perspective of ambulance physician, in my opinion the most important two questions are - can doctors significantly affect the finality of this decision and what we should be done to prevent it. On the first question, I do not have a satisfactory answer and I hope that this is the right place for the adequacy of the response. While timely recognition of hopelessness, desperation, helplessness and fatigue of an unequal struggle, and giving faith, hope and love, perhaps, for a period of time suppresses the mood of an individual, which leads him to suicide. Our work on it is a Sisyphean task.
Keywords: suicide, the role of HMP physician

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Abstract number: 043

WHEN HISTORY AND ALL DIAGNOSTIC TOOLS FAIL

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Introduction: Acute abdomen comprises of a set of symptoms that are presented within the rapid onset of the disease of an organ, located in the peritoneal cavity. The word acute warns of imminent danger to the life of the patient. Identifying acute abdomen directly depends on three basic diagnostic components: history, clinical examination and additional laboratory and radiological examinations.
Case report: Man Ž.R. 64 years comes as an emergency case to surgical clinic in OB Pirot, due to severe abdominal pain and extreme anemia. Patient is confused, pale with pearly whites. Heart: rhythmical action, systolic murmur over ictus; lung: bilateral equal sharp respiratory sound; abdomen: Diffuse painfully sensitive to superficial and deep palpation with peritoneal irritation. Lab: Ery: 1.92, Hb 52, Hct: 0.17, Plt: 75. Ultrasound of abdomen: in small pelvis hypoechogenic irregular change 33x60mm diameter is detected which Ddg corresponds to the liquid collection or other etiology. Vital parameters: BP 200/120mmHg; HF 72/min, RF 25/min, SpO2 90%. Surgeon accompanied by anesthesiologists decides to send patient to an institution of higher rank. Before the departure of patient biochemical analysis came. Urea 57.3, creat 1758, K 5.6, D-dimer> 10000, troponins normal. During transport, which lasted about 60 minutes, the patient is agitated, confused, with severe abdominal pain that is not coupled with analgesics, continuously hypertensive. Due to the condition of the patient it is not able to obtain any relevant medical history information from patient. Wife gives information that patient is unwell for 3-5 days, that the pain started suddenly this morning, that has never suffered from kidney disease and that he drinks alcohol daily. He did not vomite and had normal stool. Patient is seen by anesthesiologists, surgeons, nephrologists, hematologists and infectious diseases specialist. Lab: ER 1.7, Hb 53, Hct 0.16, urea 61.8, creat 14175, K 6.3, glucose 5.6, CRP 57.7, D-dimer 6265, INR 0.98, Ph 6.95, BE -25.6, HCO3 5.5 Lac 1.2. AST, ALT normal. Hemodialysis is initiated, followed by a drop in nitro products. Anuric. Abdominocentesis is negative. MSCT of pl. arteries, abdomen and pelvis is done- with no detectable acute changes in parenchymatous organs of the abdomen. No signs of PTE. On the second day patient came into cardiac arrest, he was reanimated and since then on mechanical ventilation (BiPAP). By infectious diseases, toxicology and hematology specialist, suspected hemorrhagic fever, poisoning and other hematologic diseases are excluded.

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Patient was treated with antibiotics, blood preparations, hemodialysis. During the treatment there was a decrease of nitrogen products but with an increase in the inflammatory parameters (CRP, PCT, Le and granulocytes), disorders of coagulation parameters in terms of disseminated intravascular coagulopathy, mild anemia correction and acidosis. Exitus Letalis on day 10 from first medical contact with physician and diagnosed as Colica abdominals, ABI, HTA, Anemia gravis, Sepsis.

Conclusion: We present a patient who from the beginning of the presentation of disease was unclear. Scanty anamnesis data (as well as hetero-anamnesis data) who may be able to give a clearer idea about the disease could not be obtained. All available diagnostic tools are not able to differentiate a cause for the occurrence of acute events in the abdomen compared to the obtained information. A differential diagnosis various pathological conditions have been considered, from perforation and bleeding in the stomach, through hemorrhagic fever to acute exacerbation of chronic condition. While we understand that the patient died in uremia, sepsis and DIC, and with all the effort that we have invested a true pathologic substrate remained unclear. Unfortunately, clinical autopsy that may be able to answer our questions was not made.

Keywords: history, diagnosis, failure

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Abstract number: 044

THE ROLE AND TASKS OF THE MAXILLOFACIAL SURGEONS IN THE TREATMENT OF TRAUMA IN THE EMERGENCY CENTER

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Introduction: The challenges of the modern era, fast pace of work and life are reflected in the emergence of trauma. Moments of reduced concentration and negligence can result in accidents, whether they are in traffic, at work during handling machines and tools, fall from height, attempted suicide, injuries, gunshot or stabbing caused by violence in sports and infection conditions. Zone of the head and neck with its distinctive architecture and organs, as well as extensive neurovascular structures significantly complicate any injury of this region.

Methodology: Review of the available literature

Data Synthesis: Etiological injuries of this region occur as a consequence of blunt trauma of high energy potential, which develops major destruction and deformities of soft tissue and bone massive, which are kind of shape and support for this tissue. Due to the richness of blood vessels, which abounds head and neck, as well as a significant organs, this injuries are very impressive at a time when such a patient in front of you. This is very common in emergency centers and emergency departments and encounter with such a patient is inevitable. Management of these traumas has evolved significantly in recent decades, which significantly reduced mortality in the golden hour. However, challenges remain, as is the area of craniofacial injuries in polytrauma patients. Severe injuries maxillofacial region-panfacial or craniofacial can be complicated in the early treatment of trauma patients, primarily because of the proximity of the brain, cervical spine, larynx, respiratory paths, impressive hemorrhage from major blood vessels. Multiple injuries especially in the middle and lower part of the face as well as neck injuries can jeopardize the airways, breathing, circulation, and cause outbursts of neurological function. Very often, these injuries may be in its course life-threatening. Maintaining the airways of patients with maxillofacial trauma is often very difficult and complex but crucial and can dictate patient survival, because the trauma threatened part of respiratory patients and their breathing is affected. In these patients, placing ventilation mask and endotracheal intubation are typically difficult to implement. In addition, in some of these patients damage to the cervical spine may be associated which complicates the very act of intubation, and all are considered to have full stomach and an increased risk of regurgitation and pulmonary aspiration. The decision

for maxillofacial surgery is sometimes impossible to make using the conventional method of intubation, however alternative methods are used to enable and ensure the airway before the operation. In order to improve clinical outcomes of patients with maxillofacial trauma, cooperation between maxillofacial surgeons, anesthesiologists and neurosurgeons is required. Algorithm of priorities based on clinical features of patients with craniofacial or panfacial high-energy injuries and treatment for such patients would be:-evaluate airway, breathing and circulation with immobilization of the cervical spine. Early detection of patients with severe injuries of the larynx with endoscopy confirmation. Establishing a surgical airway in cases of obstruction or if there is laryngotracheal dissociation. Diagnostics has its own special place, especially MDCT with 3D Reconstruction of the head and neck is essential for definitive diagnosis and surgical planning of injuries, in order to plan treatment before surgery, avoid complications and achieve a better functional results.
Conclusion: In this review, we are talking about the complexity of patient approach with maxillofacial trauma and management is our approach to treatment of these injuries, through practical examples and insights we obtained empirically.
Keywords: maxillofacial surgeon, trauma

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Abstract number: 045

DAMAGE CONTROL SURGERY – OUR EXPERIENCE OF FIVE YEARS

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Introduction: Damage control surgery (DCS) is an advanced form of surgery which is most effective when performed by the most experienced surgeons on patients with the most severe injuries, who, if treated in a conventional way, have little chance of surviving and it refers to all the procedures carried out with the aim of increasing the survival rate.
Materials and methods: The study includes 1030 patients undergoing a surgery after being admitted to hospital with a major abdominal and thoracic trauma (ISS≥18) for the five-year period (2011-2015). The patients were divided into two groups, based on whether DCS was implemented initially (group 1) or upon repeated surgery (group 2). The data were collected from the database review: the indications for the implementation of this type of surgery (the surgeon's assessment that there is excessive intraoperative non-surgical bleeding, hemodynamic instability with high levels of intraoperative blood transfusion≥4000ml), the type and severity of -*/injury, age, multiple comorbidities, laboratory features. Finally, we analyzed intraoperative and early postoperative mortality rates.
Results: CDS procedural measures were carried out in 8.1 % (83 patients). The indications were the surgeon's assessment of nonsurgical bleeding (coagulopathy) in 83% (66 patients) and intraoperative blood recovery ≥4000ml in 17% (14 patients) upon the initial surgery, i.e. uncontrollable bleeding from drains with a high degree of hemodynamic instability following the initial surgery.
The overall mortality rate is 61.4% (51 patients). The most frequent cases were: liver damage (49 patients), pelvis and retroperitoneal injuries (19 patients), large blood vessel injuries (7 patients), pancreas injury (2 patients), thoracic injury (6 patients). CDS was implemented initially in 63.8% cases (53 patients), while it was performed in 36.1% cases (30 patients) upon repeated surgery within the time interval ranging from 1 to 12 hours following the initial surgery. In the first group the mortality rate is 47.2% (25 pts), while the mortality rate in the second group is 86.6% (26 patients) .
Conclusion: A higher mortality rate in the group of patients who were subsequently treated according to CDS procedural measures indicates the significance of the timely implementation of this method. Underestimation of the severity of injury, belated recognition of the need for CDS

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implementation, especially the decisions following the initial surgery, lead to the minimum survival rate.

Keywords: Damage control surgery, Major abdominal trauma,Mayor thoracic trauma, Surgical decisions

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Abstract number: 046

STATUS EPILEPTICUS IN THE FIELD

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Introduction: Epilepsy is a disease that is caused by a disorder of brain function that detects sudden electrical discharge of a large number of neurons in the brain. Causes of epilepsy can be idiopathic (genetic factor plays an important role) and symptomatic epilepsy whose causes can be numerous (brain tumors, head injuries, CVI, intoxication, alcoholism ..). Due to a disorder of brain activity, in one part of the brain there is neuronal damage and their discharge which in clinical presentation can be seen in number of the symptoms and signs, from the smallest to those which are life-threatening. Depending on the group of affected neurons, their localization and size attacked areas epileptic seizures can be read as:

1. Partial simple seizure: motor, sensory, autonomic and mental symptoms for a period of a minute or two. Complex partial seizures have the same symptoms but they are more prominent and last longer. A common feature of both seizures is that there is no loss of consciousness.
2. A generalized seizure by type-petit mal (absence) for about 10 sec., followed by gentle clonic movements and automation, or increased or lowered muscle tone and hyperventilation. Grand mal (primary generalized tonic-clonic seizures) which begins with myoclonic twitching, loss of consciousness, increased muscle tone and clonus, incontinence and tongue bite. Changing of the state of consciousness or loss of consciousness is present.

Case report: Call from a relative in the evening from family member for M.L. age of 54 years experienced seizure at the time of calls and continuous. Upon arrival of the team, we find patient lying down, unconscious, on his back. He has epilepsy 30 years back, do not take regular therapy, and he is an alcoholic. Because of the distance, we concluded that the attack lasts longer than 15 minutes. Condition of the patient: unconscious, present tonic-clonic convulsions, tongue bite, incontinence. BP 80/50 mmHg, pulse 110 / min, Cor: rhythmic action, tachycardia, clear tones, murmur can not be heard. Pulmo: Respiratory sound on both sides quieter. Glucose 2.3 mmol / l. Neurological: tonic clonic twitching, increased muscle tone. Patient was turned aside, airway was opened and venous line placed. Oxygen is administered placed trough mask, with the flow of 6 l/min, diazepam 5 mg IV, seizure did not stop, the second ampoule of diazepam was given and after 3 ml, seizure ceases. 10% glucose solution is administered, we have checked the values of glycemia. During treatment, there was improvement of SpO2 93%, glucose 5.6 mml / l and pulse still 110 / min, BP 80/55 mmHg. Patient is somnolent. Patient was transferred to ambulance and transported to the nearest health facility and during transport vital parameters were monitored. Sp02 96%, glucose 8.8 mmol / l, 500 ml of NaCl was given, blood pressure increases, HR 87/min. He was transported to Intern department of OB Cetinje, where he was on further hospital treatment of status epilepticus.

Conclusion: Convulsive status epilepticus (KES), a life threatening condition that is characterized by a cluster of seizures that occur continuously or with short pauses for a period longer than 15 minutes where the probability of brain lesions increases with increasing length of the KES-a, tells us that timely identification, an initial treatment with the aim for stopping the seizures, plays an essential role in the survival of these patients and prevention of irreversible changes in the brain.

Keywords: status epilepticus

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Abstract number: 047

POLYTRAUMA – CASE REPORT

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Introduction: Polytrauma is the state of multiple injuries of the body, when two or more organs, two or more regions, two or more extremities, more precisely the polytrauma implies a multiple trauma.

Case Report: Man, Š. M., born on January 5, 1966, in the afternoon of April 24, 2017, about 18 hours, was brought in by private car from a nearby village, about 10km away. The patient is conscious, communicative, overweight, muddy and dusty, sitting in the front seat of the car. On the lower legs, there are injuries, abrasions, tears, soft tissue injuries, musculature, blood vessels that are scarcely bleeding, and on the left lower leg, a bone that is broken is visible. We find out that the injuries were caused by the work of a cultivator in the field, from where the patient was brought into our service. On both eyelids, about ten inches from their knees stand, scarves, clenched. The patient is transferred directly to the strechers, where the vital parameters are measured (TA-100/60 mmHg, SF-98 / min, SpO2-94), we find a venous route, apply therapy (Sol. NaCl 0.9% Amp.Gentamycin 160 mg, Amp. Trodon 100 mg, amp. Klometol), and simultaneously wash wounds with saline, 3% Hydrogen and 10% Betadine, wound dressings with sterile gases, (first layer of tassels with betadine), and coatings. In a lying position, with overlapped underparts, with therapy, and with complete EMS team, patient was transported to HC Vranje. It should be noted that another rewinding was needed as we reached HC Vranje for breaking the blood from the set gauze. Lines above the knees that were laid, along the road we gradually lowered them. The patient did not lose consciousness at all, and vital parameters were stable all the time. In less than 20 minutes, we arrived at HC Vranje, where the patient was examined once more, and on the suggestion of the surgeons, our car and team transported to the Clinic for Plastic Surgery in Nis.

Discussion: This is a serious injury that was caused by unfortunate circumstances when handling a cultivator. The patient is treated the most seriously in our service, taken care of and transported to a higher health institution. It is important to say that the two clues on both legs, set by people who were present at the time of the injury, contributed greatly to the loss of a lower amount of blood.

Key words: politrauma, lower leg, treatment

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ABSTRACTS: NURSES

Abstract number: 001

ACUTE MYOCARDIAL INFARCTION (AMI) - WHAT IS EXPECTED OF NURSES / TECHNICIANS?

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Introduction: Acute myocardial infarction is a form of coronary heart disease, which is caused by complete occlusion of the coronary artery. The cause of sudden interruption of coronary circulation is usually atherosclerotic lesions of the coronary artery with plaque rupture. Plaque rupture is the trigger that ends with thrombus formation which occludes carotid artery with a smaller or larger spasm of the arterial wall. This acute coronary lesion is pathophysiological basis of acute myocardial infarction.
Data source and the choice of material: Retrospective analysis of the literature with settings: acute myocardial infarction, ACS, nurse, treatment. Searching is done through: PubMed, Medline and accessible electronic journals as well as available literature
Results of the synthesis: Treatment of patients with acute myocardial infarction in the field in which the nurse has a significant role comprises of: Provide patient in position which requires as little strain as possible (the patient is not allowed to make any additional step). Provide immediate ECG so that physician can detect changes. Place patient on supplement oxygen if saturation is less than 92%. Oxygen is delivered as 100% O2, 2-4 liters / min through a nasal catheter or mask. Establish at least one venous line - wider caliber. Medical per oral therapy consists of 300 mg of aspirin tbl or NTG spray. Intravenous therapy is given on the orders of a physician and in most cases consists of -narcotics analgesics, anticoagulants, nitroglycerin and dopamine. It is very important impact to keep patient to calm and reassure him with adequate attitude. After the intervention at the scene, patient is transported to the nearest hospital with specialized ambulance. The nurse, as a team member, provides continuous monitoring of the patient during transport.
Conclusion: Medical nurses/technician in the treatment of patients with AIM, has a large and indispensable role. A good co-worker who knows the nature and course of the disease, which also knows the latest guidelines for the treatment of AMI and knows the mode of work of their associates – physicians, is a real value to be respected and nurtured.
Keywords: AIM, nurse, role and tasks

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Abstract number 002

ALGORITHMS FOR PRE-HOSPITAL TRIAGE IN MASS DISASTERS

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Introduction: Triage of injured in mass disasters involves classifying injuries in order to enable quick recognition of persons who have priority in management and that will benefit the most from early interventions and rapid transport to an appropriate medical facility. Triage systems (algorithms) must allow quick identification of critically injured, without the need for detailed examination of all victims of the accident.

Data source and selection of materials: Retrospective analysis of literature with settings: mass disasters, triage algorithms, triage protocols. Searching is done through: Pub Med, Medline and available electronic magazines and the available literature.
The results of the synthesis: Overview of the system by the Center for Disease Control and Prevention in the U.S. (CDC) identified the 9 existing algorithms for the triage in mass casualties, including 2 of the system for the triage of children. These are Simple Triage and Rapid Treatment (START), Jump Start, Homebush, Triage Sieve, Pediatric Triage Tape (PTT), Care Flight Sacco Triage Method (STM), military triage and the Italian CESIRA (Coscienza, Emorragie, Shock, Insufuencia respiraţia Rotture ossee, Altro protocol). These systems are relatively similar and use 4 or 5 groups for triage assessment of the condition of the victim. Initial triage depends in many cases on the local or regional protocol with unfortunately a relatively small use of a wider territory. Most countries for secondary triage use paper triage cards which are placed on the victim. By comparing data collected by systems it can be seen that there is no uniformity or standardization of data. Classification and definition of the events are also not uniform in triage algorithms. Having reviewed the available literature evaluating the quality of a triage algorithm depends on the opinions of the authors, ie., opinions of experts in this field and there are no precise scientific studies on the effectiveness of algorithms and possible benefits. The decisions made in the process of saving lives must have clear guidelines to prevent errors in the most difficult situations that a mass disaster.
Conclusion: In the current literature there is no evidence of superiority of an algorithm especially in the field of mass accidents involving chemical incidents. So, there is no data to confirm and single out the best algorithm that will lead medical response to the best outcome. There is a need for further research to provide answers to these questions, but the very nature of mass disasters does not allow it.
Keywords: triage algorithms in mass disaster

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Abstract number 003

AN ACCIDENT WITH A LARGE NUMBER OF INJURED DUE TO THE EXPLOSION OF GAS - CASE REPORT

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Introduction: Liquid petroleum gas (LPG) is a mixture of propane and butane, a colorless, highly flammable and explosive gas. Since it is 1.9 times heavier than air, it remains in lowest places, and with its presence displaces oxygen. Therefore it belongs to the group of asphyxiating gases. Only in very large concentrations has a slight narcotic effect. It burns violently, releasing a large amount of heat, and the combustion products are carbon dioxide and water vapor. With air it creates explosive mixture that can easily ignite in the presence of an open flame. However, compared to other flammable gases, explosive limit of the mixture of LPG are very narrow, ie. if in a room or area is less than 2% or more than 9% of the mixture, there will be no explosion even if there is a source of ignition (due to the excess or deficit of oxygen). Recognizable odor is added to LPG for wide consumers, so that very small gas concentrations in the air could be smelled.
Case report: On 2.04.2017, the EMS team receives call of first line of urgency where passersby in panic reported first as traffic accident and then as an "explosion in the house". Call was received at 15:17, dispatched in the same minute and team was at the scene at 15:20. Upon arrival we find one member of MUP (police station is nearby), on the street we find two seniors. A man with many small cuts on his face, without other complaints and we find that he was passer at the street at the time of the explosion. Another elderly woman was the owner of the apartment where explosion occurred, and she has visible 1 degree burns on her face and burned

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hair. Both patients were marked as green, and we continued toward the house, with disturbing shouts that there are children inside. Directly in front of the door is a middle-aged woman with a leg injury and a suspected fracture of the ankle, she was triaged as yellow. At the entrance, a young woman whose legs were stuck with decaying material ... she is conscious, very agitated. Upon entering the room, we realize that the explosion blew the ceiling, and that led to its collapse, and in the back of the room two very young people (teenagers). Boy, lying on a pile of concrete, unconscious, not breathing, without pulse and with distorted and bizarre position of the neck. Girl was completely buried. Only head can be reached, there are no signs of life. Both of them triaged as black. Due it was extremely unsafe for the team, we withdrew from the room and moved to the release and treatment of women who had blocked and the injured leg. In the meantime, firefighters came as well as additional EMS teams that we have requested upon our arrival at the scene. Injuries are not assessed as life-threatening and after stopping the bleeding, immobilization, management of the pain and included IV fluids, transported to ED CC Niš. Intervention lasted 40 minutes.

Discussion: During treatment of injured, as the first team on the scene, we used the triage protocol Care Flight, easy to use, frequent education and training on manikins allowed us to easily and without much doubt make decisions on the priority and the treatment of the injured in this accident.

Keywords: accident with a large number of injured, explosion, triage.

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Abstract number 004

TRAFFIC ACCIDENTS / WHIPLASH INJURIES OF THE CERVICAL SPINE

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Introduction: Whiplash injury of the cervical spine has traumatic nature and is defined as accelerating - decelerating mechanism of energy transferred to the neck, usually as a result of motor vehicle collisions, although it may occur in falls and some sports activities. The term refers to a sudden, involuntary hyperextension – hyperflexion neck injury with dominant injury of soft tissue. Necessary condition for it to occur is excessive bending of the neck in one of the physiological direction (forward - backward, sideways and combined).

Data source and the choice of material: Retrospective analysis of the literature with settings: whiplash injuries of cervical spine, treatment. Searching is done through: PubMed, Medline and accessible electronic journals as well as available literature.

Results of synthesis: Usual mechanism of whiplash injuries of cervical spine is described as the impact of a vehicle in rear of the other vehicle, but may also occur during the frontal impact and impact on the side of the vehicle or a combination of these mechanisms. The main condition for its occurrence is that the head and neck are freely movable. Any passenger in the vehicle could be injured, regardless of position. In case the injured is in non moving vehicle that is hit from behind at the moment of impact the vehicle receives a sudden acceleration forward and therefore the body with minimal delay also gets the same acceleration. After a certain interval torso and shoulders move forward which causes the angular displacement of the head and neck in relation to the trunk. Head moves back and down and neck comes in position of hyperextension until his anatomical structure does not resist. This is followed by the movement of the head towards when neck comes with the position hyperflexion. These injuries occur due to speed and force of movement of the head and neck in relation to the trunk which exceed physiological possibilities of paravertebral muscles, because the range of motion is executed in a short period of time in which the nervous system can not react and therefore there is no efficient motor response. In the case of good clinical orientation timely HMP is of importance in the

prevention of possible deterioration of the initial injury, and interventions at the scene are immobilization of cervical spine by placing a plastic neck collar (STIFNEK) and lateral immobilization (LATERAL STIFNEK) of the head. Onset of symptoms may occur immediately or after a few hours. The most common symptom is pain in the neck but there can be a headache, pain in the shoulder region and pain in the arms. Other common symptoms include: dizziness, impaired vision and hearing, pain in the lower jaw, neck stiffness and fatigue. Sometimes injuries can be physically manifested due to persistence of symptoms. There is no diagnostic test for whiplash. Diagnosis is based on history, objective clinical examination (orthopaedist, traumatologist, neurosurgeon) and, if necessary X-ray, CT, NMR. The most of injuries are treated conservatively with combination therapy: rest, analgesics, exercise of the muscles of neck without immobilization of I and II degree with the exception of the third degree when there is neurological impairments (an attenuated or nonexistent deep tendon reflexes, muscle weakness, muscle sensitivity deficit) and to a maximum of 72 hours . IV degree (fractures or dislocations cervical spine) requires a neurosurgical approach to the treatment with the fixed immobilization.
Conclusion: In all forms of traffic accidents and accidents and some sporting activities we should always think of this form of injury and preventive effect at the scene in terms of proper immobilization of the cervical spine and adequate transport to an appropriate medical facility.
Keywords: Whiplash injuries of the cervical spine

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Abstract number 005

CASE REPORT OF PATIENT WITH AMI AND ATYPICAL SYMPTOMS

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Introduction: Acute myocardial infarction (AMI) occurs as a result of thrombus formation in an artery that feeds a part of the heart muscle. Due to the formation of thrombus and closing of artery lumen, cessation of circulation occurs and ischemia and necrosis of that part of the heart develops. If reaction is not prompt and proper, malignant cardiac rhythm disorders may happen, which can in some cases (not small) end fatal. Recognition of the symptoms AMI and prompt medical treatment are the key elements of survival of these patients.
Material and Method: Case report with retrospective analysis of available medical documentation.
Case report: On 02/02/2017, patient comes to HMP accompanied by his son. As large number of people was waiting to be examined in front of physicians office (flu season), relatives on their own initiative, without prior exam, brought patient to the observation room asking for physician to come. Although attending observation room nurse can refer patient back to phyicians office, general impression was that patient may be in emergency condition. From relatives she received information that the previous day he had a fever, but that now he is afebrile. Despite the lack of high temperature, patient is profusely sweating and complains of nausea, dizziness and that he feels very sick. Observation nurse decides to send a younger colleague to call physician places patient in bed and it immediately sets the monitor. Until the arrival of doctor (who first finished previously started exam) she had prepared the patient. She measured vital parameters and did ECG. Following vital parameters were obtained: HR 100/60 mmHg; SF; RF18 / min; ŠUK 7,2mmol / L, SpO294%. In the course of these proceedings, takes a brief medical history. He learns that patient has chest discomfort for last 30 min., has hypertension and takes medication regularly, that he had vomited once and it was food, he is visibly upset and frightened. Soon, physician comes and basically gets a well prepared patient. On the ECG following changes can be seen: AF, ST segment elevation in D1, D2, aVL, V1-V6. Physician begins treatment: 300 mg PO tlb

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Andol, Fentanyl ½ Amp; Amp Klometol amp Ranisan, tbl Brilique 90 No II, IV Clexane 0.3, Sol. NaCl 500 ml.
Conclusion: The role of educated nurses in management of patients with AMI is invaluable for team work in health system emergency services.
Keywords: AIM, atypical symptoms, nurse

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Abstract number 006

ACUTE PULMONARY HEART

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Introduction: Pulmonary heart is secondary enlargement and damage to right ventricle caused by development of pulmonary hypertension. Acute cor pulmonale (ACP) is defined as: Acute insufficiency of the right ventricle due to an abrupt increase of pressure in the pulmonary artery due to a significant reduction in pulmonary vasculature. In the absence of previous heart and lung diseases of heart it is necessary that the reduction is over 60% functional pulmonary blood flow.
Data source and selection of materials: Retrospective analysis of literature with settings: acute pulmonary heart. Searching is done through: PubMed, Medline and the available electronic journals and the available literature.
Result of synthesis: ACP is almost always the result of a massive pulmonary embolism. Extremely rare causes are: aortic aneurysm, massive pulmonary atelectasis and mediastinal tumor. ACP often arises from apparently good health, with very severe clinical picture that often ends in death. It usually develops as a result of embolus in one or more branches of the pulmonary artery followed by vasospasm. It is usually the result of deep vein thrombosis of legs or pelvis and can also be from the right heart. Deep vein thrombosis of leg usually occurs after a surgical procedure, because of the patient's immobility and venous blood flow impairment. It is common in patients with heart failure and in those with CVI. It can occur in pregnancy, in patients with malignant diseases, obese and in women on oral contraceptives and the use of cigarettes. Les common causes: amniotic fluid, air, fat, parasites, tumor cells or foreign bodies. Mechanical occlusion of the pulmonary circulatory system may be a varying degree and localization. In fulminant form which ends with immediate death there is complete occlusion of the main trunk of the pulmonary artery. In other massive pulmonary thromboembolism occlusion is incomplete at the same localization and often embolization of major branches of the pulmonary artery on both sides. In recurrent thromboembolies and in people who have had the severe heart disease and lungs, thromboembolism may not be massive to lead to APS. Symptoms depend on the size of the affected blood vessel by embolus. In massive pulmonary embolism patient is pale, then becomes cyanotic, has bronchospasm, chest pain, dyspnea, develops acute pulmonary heart and cardiogenic shock. Embolism of large branch of the pulmonary artery result in lung infarction and we can see occur tachycardia, tachypnoa, discomfort, chest pain, pleural pain, cough, and hemoptysis, and the temperature may be elevated to 38C. In embolization of a smaller branch of the pulmonary artery, symptoms are tachycardia and tachypnoa. Kussmaulovo sign (ascending jugular pressure while breathing) and paradoxical pulse (a decrease or disappearance of the pulse wave in the inspiration) can be seen. The first step in therapy is the resuscitation of vital functions breathing, circulation and fight against shock. Analgesic of choice is morphine 10-15 mg sc., 250 mg Aminophylline IV is given immediately and oxygen so that the partial pressure of O2 is maintained at a normal range, typically about 6-8 liter / minute. After establishing venous lines we give fluids to increase pulmonary flow and thus oxygenation. In patients with hypotension by infusion give

vasopressor inotropic agents (dopamine) and if the condition progressed we give a high dose of cortico agents.
Conclusion: For every unclear tachycardia or tachypnoa we should think of pulmonary embolism as well as in patients who have heart failure worsened without apparent reason.
Key words: acute pulmonary heart

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Abstract number 007

TRIAGE IN THE EMERGENCY DEPARTMENT

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Introduction: Due to the increasing number of patients, increasing demands and complexity of medical treatment, emergency departments (ED) are faced with the problem of overloading. Therefore, to solve the problem imposes the necessity of defining the process of work in emergency departments.
Data source and selection of materials: Retrospective analysis of literature with settings: triage, emergency reception and overload. Searching is done through: PubMed, Medline and accessible electronic journals as well as available literature.
Results of synthesis: Work in ED starts with triage. The main purpose of triage is categorization of patients according to urgency. Triage categorization enables and ensures proper and timely evaluation of all patients who come to the Emergency Department. Triage categories determine the order of treatment and minimize the possibility of accidental events. Contemporary triage scales are based on a scale of 5 triage categories: Immediate life-threatening conditions (category 1); Imminent life-threatening conditions (category 2); Potentially life-threatening conditions or important timely processing and treatment or severe pain (category 3); Potential life-threatening serious conditions or the urgency of the situation or significant complexity (category 4); and Less urgent (category 5). The best known and commonly used triage scale are Australian Triage Scale (ATS), Canadian Emergency Department Triage and Acuity Scale (CTAS), Manchester Triage Scale (MTS), and Emergency Severity Index (ESI) had a profound influence on the development of the modern approach to triage. Other triage scales, Soterion Rapid Triage Scale (SRTS), 4-level Taiwan Triage System (TTS) have not made a bigger impact on researchers not no personnel who should apply them. As support to ED staff, it is desirable to have clearly defined instructions for patients about triage categories. Nurse interventions in triage:
• not to postpone medical exam
• must be in agreement with the patient and escort
• must ensure patient privacy
• must be clearly explained to the patient
• must be documented
• must be in accordance with organizational guidelines of triage.
Examples of nurses interventions for the initial management of patients during triage:
• nurse anamnesis
• taking vital parameters (BP, BT, respiratory rate, oxygen saturation)
• ECG
• basic life support (BLS)
• application of oxygen
• determining Gly
• blood sampling for laboratory tests
• immobilization of the injured extremities
• establishing IV line
• wound management (stopping bleeding).

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Triage nurse must re-evaluate all patients in the waiting room after the scheduled time for waiting for a given triage category passes. Retriage must always be logged into the patient (e) card.
Conclusion: Given the overcrowding as one of the major problems of ED in general, defining the work process, the introduction of clear and simple procedures and facilitate the work of managing staff in terms of overload. Also, the implementation of citizens education - when and what resource of health care to use, in order to reduce the pressure on the emergency services and the hospital emergency units, would greatly improve working conditions and enable better and calmer approach to each patient individually.
Keywords: triage, emergency reception, overcrowding

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Abstract number 008

IS THIS THE FUTURE FOR CPR?

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Introduction: When the heart stops beating, the chances of survival fall 7% for every 10 minutes, until a defibrillator deliver an electric shock, which can re-start the heart. But the reaction time of emergency medical team is an average of 5-10 min in cities and often more than 20 minutes in rural areas, which means that firefighters and emergency medical teams, who have defibrillators, often arrive too late. By placing automatic external defibrillators (AED), this problem is only partly solved. This is why science and technology are still searching for a solution.
Material and methods: Retrospective analysis of the literature with settings: new in CPR, technical development, drone. Searching is done through: PubMed, Medline and the available electronic journals and the available literature.
Results synthesis: According to data from the literature, less than 10% of 800,000 annual cases of heart attack survive in European Union. But if the defibrillator arrives within two minutes, the chances of survival grow up to 80%. Therefore the prototype drone was made for emergency medical assistance that can deliver a defibrillator in width of 12 square kilometers in less than two minutes. Characteristics of the first drone designed and manufactured in the Netherlands for the purposes of EMS are: Cost: $ 5,280 (prototype). The final model: $ 15,828 Maximum speed: 100 km / h, Weight: 4 kg, carrying capacity: 6kg. Reaction time: 12 km2 within two minutes. Maximum flight time: 15 min. Drones do not fly by themselves. Person who manages it remains in the base, he is medically qualified and has a duty to send a drone to an emergency call. Camera is mounted on the front of the drone and provides feedback in order to find the target using GPS. Upon arrival to the patient, pilot / physician tell people at the scene what to do, using the camera to control whether defibrillator pads were placed correctly. Also, control of delivery DC shock is possible via cameras. Drones who could not locate drowning person and deliver him a life vest was also in construction plan. The biggest problem for final use of drones is state regulation, although it is believed that drones for ambulances have a good chance of obtaining permits. In Canada, at the University of Toronto, study was done with 100 drones in 81 bases set in 8 municipalities of Toronto. Their tests showed that the time of delivery defibrillators decreased by 50% in 90% of cases of cardiac arrest.
Conclusion: Prof. Duro Koruga said "This blending of technology and medicine explains the attitude that" medicine without technique is blind and technique without medicine is powerless"
Keywords: drone, defibrillator, cpr

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Abstract number 009

OXYGEN THERAPY AS AN EMERGENCY PROCEDURE

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Introduction: Application of oxygen is probably one of the most common medical-technical actions that we are facing in their daily work. However, only adequate and properly indicated and administrated oxygen may be used, while, on the contrary, lack of indication of the application and process can be dangerous and even fatal to the patient.
Methods: A search of available literature sources
Results: Oxygen therapy only apparently represents a single medical-technical action, and is much more than just opening the bottle and to applying oxygen masks. Knowing the equipment and method of application are the basis of successful oxygen therapy.
Equipment: Oxygen-bottles are of different volumes, for fixed systems of 7 - 10 - 20 liters (usually 10L), mobile systems use the smaller bottle of 1 to 3 liters (depending on the manufacturer). Bottles are filled to about 50-60% of maximum value of tested pressure. We can see oxygen pressure in the bottle on pressure gauge, which in addition to the control valve, has a function of reducing the output pressure to about 4-6 bar, so that its application can be possible.
Flow: Thrope (model with balls in a transparent plastic cylinder), Burdon (behind the manometer and the pressure regulator), valve with a fixed oxygen flow (no indication), it is possible to install flow of 2-15 l / min. For application of low concentrations of oxygen a nasal catheter and a standard oxygen mask are used. Nasal catheter - advantage is that it does not bother the patient, a disadvantage is that application of high concentrations oxygen is not possible (longer application> 4L / min irritate the nasopharynx). The minimum amount of oxygen which can be applied by a mask is 6L / min. This is sufficient replace residues exhaled air contained in the mask. Problem of this mask is that the patient breathes in it and supply of oxygen must be such to succeed a sufficient amount of exhaled air out of the mask before the next breaths. For application medium oxygen concentration we use Venturi mask (with mask there is a system of colored valve on each of which it is written how much L/min of oxygen can be given to a patient). For the application of high oxygen concentration we use a mask with a tank with non rebreather valve (OHIO mask) - provides about 95% of oxygen on inspiration. Symptoms of hypoxia include: dyspnea, tachypnea, orthopnoea. Signs are: agitation, confusion, lethargy, somnolence, coma, peripheral vasoconstriction, cyanosis, various types of arrhythmia, nausea. Measurement of oxygenation is done by pulse oximetry and below 94% is considered pathological. Bottles must be in place, secured and cleaned; valves protected by the caps; after application of oxygen release it from the system so pressure will not damage the valves. Empty bottles must be stored separately from full. The bottles are never emptied until the end, but up to about 20 bar.
Conclusion: Although the daily work using oxygen is one of the easiest medical and technical actions, it is necessary to know each component of this therapy. As any therapy – this one can also have its side effects.

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Abstract number 010

INTRAOSSEOUS ROUTE OF ADMINISTRATION OF DRUGS AS A SOLUTION TO PROBLEMATIC SITUATIONS

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Introduction: Establishing venous line is one of the basic skills in the domain of nurses and technicians. During CPR it is a necessary procedure because all medication are administered

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intravenously (i.v.). In addition to the intravenous, there are alternative ways of drug administration in critically ill patients - endotracheal and intraosseous (IO).
The aim is to consider alternative routes for the administration of drugs in emergencies.
Method: Review of literature.
Results: IO fluid administration trough sternum was first mentioned by Drinker and colleagues in 1922. The use of IO route for the application of fluids, drugs, blood products and become relatively common in the 1930's and 1940. American Heart Association (AHA) in 1986, approved the use of IO route for the administration of fluids and medications during pediatric resuscitation. The guidelines for pediatric basic and advanced life support 2005, AHA and International Liaison Committee on Resuscitation (ILCOR), repeated guidelines placing IO route if vascular access can not be achieved in infants or children which require fast access for the administration of IV medications or fluids. The main advantage of IO route is the ease with which one can get access to the vascular bed. It has been shown that a skilled person can achieve IO access within 1-2 minutes, with success of 80% or more.
Bone marrow of long and flat bones represent web of non collapsed veins, not only in children but also in adults. Through them drugs, anesthetics, crystalloids, colloids, and blood derivatives can be administered as well as to take blood for analysis, blood group or acid-base status. IO access is contraindicated in patients with a fractured bone at the access, in patients with cellulites or burns, injuries in the inferior vena cava, in certain bone diseases, such as ontogenesis imperfecta or osteoporosis. The rule is that you should make only one attempt at providing IO route in a single bone. IO route is considered "non collapsed vein". A variety of fluids, including dextrose, crystalloids, HAES, as well as the majority of drugs used in the CPR can be administered via the IO access using a standard IV dose. The bolus administration of drugs can lead to a "depot" effect, where drug remains in the medullar cavity for a long time and results in a lower serum concentration of drug longer drug distribution in as compared to IV administration. The delay in the distribution of drugs can be compensated by administering a small amount (3-10 ml) of normal saline after administration of the drug. For continuous use infusion pumps are recommended to maintain adequate rate of drug delivery.
Conclusion: Training to place IO route, as well as procurement of appropriate sets is another weapon in the arsenal of personnel in emergency medicine services, as in pre hospital and hospital services also.
Keywords: intraosseous route, an alternative route

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Abstract number 011

IMPORTANCE OF THE WORK OF NURSES IN THE OBSERVATION UNIT OF ED

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Introduction: The term observations consist of a whole group of skills in nursing. Observation is the most important part of successful patient care and contains all the means, all activities and all measures in patient care. It should allow establishing of early diagnosis and provide proper care and assisting to other in their work with the patient.
Methods: Retrospective review of the work in observational unit of Emergency department in ZC Zajecar
Results: Observation of patients is one of the main tasks of nurse in health care. Symptoms may be: subjective (e.g., pain, wherein the patient describes the localization and radiation, as well as the character and intensity of pain), functional (impaired function of the affected organ). Such symptoms are, for example dyspnea, dysphagia and general (loss of appetite, feeling of weakness, fatigue, etc.). There are specific signs - the vital parameters that are direct indicators: temperature, pulse, respiration and blood pressure. Tasks of a nurse taking care of the patients

in observation are numerous, complex and very responsible - information on the state of patients, checking on vital signs, safety concerns, patient monitoring, planning and specific medical treatment, taking the biological material and its preparation for further processing, keeping proper documentation of patients, communication with associates and providing necessary information to the physician on duty on the condition of patients in observation. Observation in ED in Zajecar consists of three observational units with 8 beds. In seven-month period (September 2016 to march 2017) average 41.4% of patients who came or were sent due to various problems have been observed in day shift. In same period from day shift 33% of patients were sent to further hospital treatment. The percentage of the observed patients in night shift is increasing to 51.2%, while to further treatment in hospital are sent 23.7%. In one twelve hour-shift there is one doctor and two nurses/technicians, so the work of nurse in the observational unit is of paramount importance, as well-informed nurse is of great help to physician.

Conclusion: Working in Emergency Department includes highly integrative capacity of nurses, which is best shown in the most difficult situations, when the speed of one of the decisive factors in the preservation of human life. Therefore, staff training and emergency medicine units must be directed towards specific tasks - rapid identification of critical situation and urgent action in calm, focused and purposeful manner.

Keywords: observation, nurse

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Abstract number 012

PROCEDURES FOR MANAGING AIRWAY BY NURSE/TECHNICIAN

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Introduction: Quickly and safely established and secured airway is a prerequisite for the successful management of critically ill patient and critically injured victims. Some studies indicate a high level of errors in management of a patent airway and a great number of complications while providing of breathing. In the process of critical patient care nurse/technician has a duty and responsibility to provide temporary or definitive airway of the patient.

Material and methods: Retrospective analysis of the literature with settings: airway, procedures for maintaining airway, nurse role. Search is done through: PubMed, Medline and the available electronic journals and the available literature.

Results of synthesis: Procedures for managing airway that are required to be known and applied by nurse are: head tilt - chin lift; Triple manoeuvre; Inspection of the oral cavity; Oropharyngeal airway; Ventilation mask-balloon, use alternative methods - supraglottic devices (LMA, Laryngel tube, Combitube...). For managing airway, regardless of the patient and situation, there are three basic rules to be followed. Rule 1: Always check all available equipment at the beginning of the shift (if there are equipment, quantity, in order, available sizes, connectors ..and etc.); Rule 2: securing the airway always start with the simplest method by which it is possible to solve the problem. Often, the simplest procedure can solve the existing problem. It is known that the simpler the procedures complications and mistakes are fewer. This rule allows the systematization of wrong actions and thus faster decision making. Rule 3: always try the procedure you know the best, in which you are educated and trained. Often some procedures in the process of education are acquainted with, sometimes they are learned (the one-day course), however, mastering the skill will depend on the experience and the opportunity to perform this procedure regularly. This three rules in the airway management may be related to some other emergency procedures, and should be considered in each particular procedure separately.

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Conclusion: The nurse/technician during management of critical patient meets the need to provide and maintain the airway. Taking in account certain rules in the process of performing these skills greatly facilitates their performance.
Keywords: airway

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Abstract number 013

INTOXICATED PATIENT – PROBLEMATIC PATIENT IN EMERGENCY DEPARTMENT SERVICES

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Introduction: Alcohol belongs to a group of psychoactive substances that ingested changes psychological affects of mood, thinking and behavior. By its structure, it belongs to the depressors of the central nervous system. Its action lowers level of functioning of parts of the brain or the brain as a whole. Alcoholism of youth population in our country in the last decades receives such proportions that it becomes a "task number one" for prevention and protection of health.
Methods: Retrospective analysis of literature with settings: alcoholism, alcoholism problems, emergency department. Searching is done through: PubMed, Medline and the available electronic journals and available literature.
Results of synthesis: Alcohol intoxication is a common cause of admission emergency departments of General Hospital. In addition to admission only because of alcoholism, alcohol abuse is inevitable additional condition for many other conditions, primarily trauma (accidental and self-inflicted injuries), drugs poisoning, mental changes, aggression... In not a few cases it has a forensic medical significance. The incidence of intoxicated people varies by time. Most frequently they occur at night, on weekends, during national and religious holidays, graduation. Patients usually have short-term effects of alcohol. Symptoms and signs for which they are treated are: stomach disturbed, feeling of dizziness or nausea, vomiting, headache, hypoglycemia and loss of consciousness. Alcohol abuse can cause a variety of long-term problems because it affects the whole body. Some of these problems can lead to death. Diseases caused by or associated with it are: high blood pressure, heart failure, pulmonary edema, liver damage, hepatitis, liver cirrhosis, gastric and duodenal ulcers. Mental disorders: problems with attention, learning and memory, depression, mood swings, anxiety disorders, insomnia, malnutrition, impotence in men and women who drink during pregnancy have a higher chance of a miscarriage. Intoxicated patient at ED, except that he must be adequate diagnostic and therapeutic treated, personnel of department can have a series of non-medical problems. If they are conscious, they often require special attention, they are loud, unpleasant and even aggressive towards staff. It is often necessary for them to be in some way secured from self-harm or aggression towards others. If they are unconscious, they need to be on constant monitoring and in hygienic terms also require special engagement (removal of vomited contents, urine and feces)
Conclusion: Acute and chronic alcoholism is often a pathological condition that has been treated in the emergency department, which brings a large number of non-medical problems. Treatment of such patients should be proper and careful regardless of the problems that their stay at the department can cause.

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Abstract number 014

PATIENT CARE OF POLYTRAUMATIZED IN THE EMERGENCY DEPARTMENT KCS

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Introduction. Trauma is an acute damage to body by action of the external force with destruction of tissue and supporting the functional disorder. Polytraumatised patients represent a significant population urgent and potentially life threatened, and knowledge of complex diagnostic and therapeutic approach of severely injured patients is one of the modern theme for medical workers of all profiles. The golden rule is urgent treatment of injured from the moment of injury in the period of "golden hour". In order to increase survival rates and decrease complications in polytraumatized patients the knowledge of modern algorithms for the treatment of severely injured patients is necessary. Treatment of polytraumatized patient requires knowledge and skill, and involves teamwork, from the place of injury to management and treatment in a specialized institution with a multidisciplinary approach to the injured.
Objective: 1. Display of standard procedures in the care of severely injured; 2. Display of health care and nursing activities in all stages of treatment; 3. Analysis polytraumatized patients in the intensive care unit of ED by demographics, by type and mechanism of injury, according to the severity and type of injury, by type and treatment outcome, length of treatment.
Methodology: Time and place: Research was carried out in the Emergency Department, Central Department of intensive care, from 1.1.2012.-31.12.2016.
Data were analyzed by descriptive and analytical statistics and presented in tables and graphs.
Data source were logbook, medical history.
Sample are the patients treated in intensive care.
Conclusion. Based on the research results, the following conclusions were drawn:
According to socio-demographic characteristics of polytraumatized patients in the intensive care unit of Emergency department KCS, most of injured were male and aged 20-29. According to place and time of the injury most of them had an accident outside Belgrade, and mostly transported to the ER during the night; According to the type and mechanism of injury of polytraumatized patients most were with head injury and injured in a traffic accident. According to the outcome of polytraumatized patients - most of them survived the injury.
Keywords: patient care, polytraumatized

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TREĆI MEĐUNARODNI KONGRES
DRUŠTVA LEKARA URGENTNE MEDICINE SRBIJE
NIŠ, 2017.

ZBORNIK SAŽETAKA

SAŽECI: DOKTORI

Broj apstrakta: 001

TRAUMA NUMERIČKI BODOVNI SISTEMI U PROCENI TEŽINE POVREDA I PREŽIVLJAVANJA POVREĐENIH U RANOM HOSPITALNOM PERIODU

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Uvod: Trauma numerički bodovni sistemi procenjuju težinu povreda određivanjem anatomskih deformiteta nastalih kao posledica traume i merenjem odgovora organizma na stres tj. traumu. U prehospitalnom i početnom hospitalnom periodu najčešće se koriste: GSC, TS i RTS, AIS i ISS.
Cilj nam je ispitati koji trauma numerički bodovni sistem je u našim uslovima najjednostavniji, najlakše primenljiv i najobjektivniji u proceni težine povreda i pokazati procenu preživljavanja u odnosu na vrednosti pojedinih numeričkih bodovnih sistema.
Materijal i metode: Obrađeno je 80 pacijenata koji su ispunjavali kriterijume za politraumu. Sve povrede su dokumentovane a zatim klasifikovane korišćenjem sledećih numeričkih bodovnih sistema: GCS, RTS, AIS i na osnovu njega ISS. Vrednosti su izračunavane pomoću kalkulatora na sajtu trauma.org website, (http:/www.trauma.org/scores/index.html).
Rezultati: U ukupnom uzorku zastupljenost oštećenja mozga, po gradaciji GCS od 6-8 i <6, je u oko 50% slučajeva. Raspodela pacijenata prema RTS pokazuje da je oko jedne trećine bolesnika imalo ozbiljnu traumu. Ukupan broj povreda je raspoređen po pojedinim regionima tela. Broj povreda i procentualno učešće zahvataju ravnomerno svaki region tela (20-30%). Svaki region tela koji je bodovan ima u preko 50% slučajeva izražene povrede, sa opasnošću po život (AIS4) ili je povreda kritična (AIS5). Oko 66% pacijenata imalo je ISS od 25-49, što bi po intenzitetu i intervalnoj raspodeli numeričko bodovnih sistema odgovaralo umerenoj težini povrede. Politraumatizovani pacijenti koji su preživeli sa statistički značajnom verovatnoćom imali su ISS od 25-49. Svi pacijenti koji su umrli po GCS imali su skor 8 ili manje. (Mann-Whitney U-test p<0,001). Većina pacijenata koji su preživeli po kriterijumu RTS imali su laku ili umereno tešku traumu (81.3%).
Diskusija: U našim uslovima primena RTS, GCS, AIS i ISS su jednostavni i pružaju objektivne podatke o težini povreda i proceni preživljavanja politraumatizovanih. GCS je najoptimalniji numerički bodovni sistem za procenu oštećenja mozga, a RTS je najoptimalniji numerički bodovni sistem za brzu procenu težine povrede povređenih, na mestu nesreće i u ranom hospitalnom periodu.
Ključne reči: trauma, numerički bodovni sistemi, hospitalizacija

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Broj apstrakta: 002

SUBARAHNOIDNA HEMORAGIJA KOD MLADE OSOBE KAO POSLEDICA RUPTURE ANEURIZME

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Uvod: Subarahnoidna hemoragija (SAH) predstavlja krvavljenje u subarahnoidnom prostoru, koje najčešće nastaje zbog rupture aneurizme. Anamneza je tipična - iznenadna glavobolja (kao udarac), obično u potiljku sa širenjem ka vratu, a nekada niz kičmeni stub sve do lumbalnog predela ili ka čelu. Brzo se javlja mučnina, povraćanje i poremećaj svesti sve do kome. Zbog nadražaja moždanica javljaju se meningealni znaci, ali su oni nekada slabo izraženi ili izostanu. U slučaju oštećenja moždanog tkiva javljaju se i žarišni znaci (hemipareza, epileptični napadi).

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Važan nalaz je i bradikardija, 40-50/min i koristi kao indirektni pokazatelj povećanog intrakranijalnog pritiska.
Materijal i metode: Prikazujemo slučaj subarahnoidne hemoragije, kao posledicu rupture moždane aneurizme kod mlade osobe (28 godina).
Prikaz slučaja: 24.02.2017. ekipa službe hitne pomoći dovozi pacijentkinju koja je kolabirala u teretani. Drugarica daje podatak da je trening bio teži i da je u tom trenutku bila velika vrućina u teretani. Prilikom pada pacijentkinja je udarila glavom u metalnu kutiju. Oko 2 minuta nakon pada je bila bez svesti. Nije se umokrila, nije se tresla. Pacijentkinja (28 godina) svesna, orjentisana, umorna (samo bi da legne da se odmori, prethodna radna nedelja joj je bila baš stresna, ima slab apetit već nekoliko dana). Na inicijalnom pregledu uočava se hematom frontalno desno 5x8cm, ne krvari, palpatorno bolan, TA 150/90mmHg. Cor et pulmo: uredan nalaz. EKG: sinus, normogram, sf 88/min. Neurološki: zenice jednake, kružne, izdašne simetrične reakcije na svetlost, vrat slobodan, nije rigidan, očuvana GMS na GE i DE, bez jasne lateralizacije. MTR se uredno izazivaju. Abdomen u nivou grudnog koša, respiratorno pokretan, bezbolan na površnu i duboku palpaciju, jetra i slezina se ne palpiraju. Peristaltika čujna, periferni pulsevi simetrično palpabilni. Inicijalna terapija: sol Manitol, amp. Novalgetol, amp. Klometol IV. Pacijentkinja monitorirana (TA, SF, SpO2, EKG). Laboratorija: blago povećan CK i LDH. Kraniogram: bez znakova koštanog traumatizma. U toku opservacije dolazi do regulacije tenzije (120/80mmHg), glavobolja je manja, i lokalizovana je samo na mestu povrede, pacijentkinja želi da ode do toaleta, gde kolabira, te biva vraćena na monitoring. Konsultovan neurolog: somnolentna, orijentisana. Desnu nogu odmah po postavljanju u Mingacini spušta za par centimetara, ali ih nakon toga dovoljno dugo drži u zadatom položaju. Manje pozitivan Romberg, minimalno kompromitovan tandem hod. Dalji nalaz uredan. CT: prisutni znaci masivne subarahnoidalne hemoragije sa prodorom krvi u IV moždanu komoru. Nakon toga, pacijentkinja hitno transportovana na NHK Niš, gde je operisana narednog dana, i otpuštena oporavljena na kućno lečenje
Diskusija: Prikazani slučaj mlade pacijentkinje interesantan je iz nekoliko razloga, koji su u zbiru mogli da nas navedu i na drugačije zaključke. Heteroanamnestički podaci koje je dala drugarica (težak trening, zagušljivost u sali, težak dan na poslu) mogu da odvuku pažnju i usmeravaju je u drugom pravcu. Prisustvo bliske rodbine iako zamišljena kao "dodatne oči", može da zasmeta ukoliko su naglašeni, ili ukoliko rodbina stanje pacijentkinje tumači na sasvim pogrešan način ("da nije trudna", "drži dijetu" itd...). Neupadljiv neurološki nalaz na inicijalnom pregledu ipak nas je naveo na ekspektativan stav umesto da stanje proglasimo lakim. Uredan kraniogram je takođe mogao da bude neprijatna zamka. Kritičan momenat se desio prilikom odlaska u toalet, kada je pacijentkinja kolabirala prilikom defekacije. CT nakon toga definisao je problem, te je dalji tretman bio brz i uspešan.
Zaključak: ruptura moždane aneurizme, iako može imati inicijalnu nespecifičnu prezentaciju, predstavlja veoma ozbiljno stanje sa visokim procentom smrtnosti, te svako kolapsno stanje treba ozbiljno uzeti u obzir. Opservacija je od ogromnog značaja u definitivnom tretmanu ovakvih pacijenata.
Ključne reči: subarahnoidna hemoragija

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Broj apstrakta: 003

NEKROTIZIRAJUĆI MEDIJASTINITIS

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Uvod: Nekrotizirajući medijastinitis (NM) je retka ali veoma teška i potencijalno po život opasna komplikacija oro-pharingealne infekcije koja se spušta u medijastinum kroz konekcioni prostor i

superficijalni cervikalni fascijalni prostor. Descedentna forma NM se sreće uglavnom kod mladih osoba. Prosečan uzrast je 36 godina i u 86% su muškarci. Oko 70% slučajeva NM se javlja kroz retropharingealni put dok 8% ima pre-trachealni put. Raniji slučajevi i serije prikaza slučajeva pokazuju visoku smrtnost NM koji ide i do 40%.

Sinteza podataka: Primarno poreklo može biti odontogena infekcija (poreklom od drugog ili trećeg molara oko 40-60% svih slučajeva), pharingealna mekotkivna infekcija (14%), peri-tonsilarni absces (11%), sinusitis, cervicalni limphadenitis (7%) ili posledica cervikalne eksterne traume (5%) i traumatske endo-trachealne intubacije (7%). Sekundarno može biti povezana sa komplikovanom laringo-oesophagealnom hirurgijom i oesophagealnom perforacijom uzrokovanom pritiskujućom lezijom od strane čvrstog stranog tela. Međutim, najveći broj slučajeva je povezan sa kardiovaskularnim operacijam (pogađa 1-2% svih pacijenata sa operacijom na srcu). Druga etiologije kao: perforacija tracheo-bronchialnog stabla, ekstenzija plućne infekcije na medijastinum ili ekstenzija infekcija vrata i glave je takođe moguća. Ovi slučajevi se karakterišu akutnom polimikrobnom infekcijom sa ekstenzijom nekroze fascije koja se širi između kože i muskulature. Ovaj tip infekcije ima kapacitet da pogađa više anatomskih zona, izazivajući nekrozu mišića i fascija, celulitis, formiranje abscesa i sistemsku toksičnu infekciju.

Sve ovo je povezano sa visokim mortalitetom osim ako se dijagnoza ne postavi rano i tretira se brzo. Starije osobe i pridružene hronične bolesti su važni predisponirajući faktori za visok mortalitet. Prema Endo S klasifikaciji (1999) NM je klasifikovan kao fokalni-tip I i difuzni-tip II, prema stepenu raširenosti procenjene CTom. Kako klinička slika zavisi od lokacije infekcije, descendentni medijastinitis se prezentuje širokim spektrom kliničkih simptoma i znakova od subakutnih formi do devastacirajuće forme koja zahteva neodložnu intenzivnu terapiju. Drhtavica, visoka temperatura, tahikardija, gušenje i neproduktivni kašalj su vodeći simptomi. Rano prepoznavanje i dijagnoza, agresivna hirurška intervencija i česta kontrola serijskim CT om su od ključnog značaja za smanjenje stope smrtnosti. Primarni tretman za NM čine intravenski antibiotici širokog spektra i hirurške drenaža. Opisana su četiri različita hirurška pristupa. Antibiotska terapija nije dovoljna te je potrebna hirurška drenaža gnojnih kolekcija vrata i medijastinuma, sa debridemenom i ekscizijom svih nekrotičnih tkiva koja se nalaze u tom regionu. Nedostatak poznavanja i retkost ovog teškog stanja često dovodi do kasne dijagnoze. Ovo dovodi do ozbiljnih komplikacija, uključujući septički šok, bilateralni empijem, gnojni perikarditis, akutnu bubrežnu insuficijenciju koja zahteva dijalizu i produženu mehaničku ventilaciju. Glavni uzroci loše prognoze u NM su: problemi u postavljanju rane dijagnoze, neadekvatni debridemen, neodgovarajuća drenaža cerviko-medijastinalnog prostora, prethodno kliničko stanje pacijenata (koji je često loše) i mala učestalost ovog oboljenja.

Zaključak: Descendentni nekrotizirajući mediastinitis je teška, potencijalno fatalna forma medijastinitisa, koja nastaje kao komplikacija odontogene i/ili duboke cervikalne infekcije. Kako je descendentni mediastinitis po život opasno stanje kod kojeg ukoliko se ne reaguje brzo, treba ga razmatrati u smislu veoma urgentnog stanja.

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EFAST-EXTENDED FOCUSED ASSESSMENT WITH SONOGRAPHY ZA TRAUMA PACIJENTE

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Uvod: Ultrazvuk (UZ) je sve važniji u primarnoj zaštiti pacijenta. Svoj značaj dobija kako u urgentnoj medicini, tako i na terenu i u lekarskoj ordinaciji. Jednostavan je, lako dostupan, ponovljiv i daje nam brz odgovor. EFAST pregled je standardizovan, egzaktan i brz te sa njim dobijemo veoma korisne informacije. Upotrebljavamo ga kod traumatizovanih i hipotenzivnih bolesnika. Lako naučimo da ga koristimo, na kursevima i vežbama. Možda su najbolje poznati

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WINFOCUS kursevi, postoje naravno i drugi. E-FAST je samo jedan od mnogih pregleda u urgentnoj medicini.

Sinteza podataka: UZ je deo ABCDE protokola pri pregledu pacijenta. Urgentni UZ je dostupan, brz i pristupačan. Ne zahteva puno vremena a daje nam važne informacije o stanju pacijenta Sa njim možemo da pratimo dinamiku dešavanja, jer je ponovljiv i jednostavan. To nije specijalni pregled, kao regularni pregledi UZ. Sa njim dobijemo jednostavan odgovor, kao što su DA ili NE. (Da li je prisutna slobodna tečnost, ili ne). Pre svega, želimo da saznamo da li je u peritonealnom prostoru prisutna slobodna tečnost ili ne, odnosno, da li je prisutan pneumotoraks ili ima li tečnosti u pleuralnom prostoru. Ne samo da je upotrebljiv kod traume, nego i kod drugih urgentnih stanja, pre svega kod nejasnih hipotenzivnih stanja.Ultrazvuk u urgentnoj medicini je postao sastavni deo ABCDE protokola. S tim dobijamo u vremenu i boljem tretmanu pacijenta.

Izvođenje EFAST-a: Većina bolesnika je imobilisana na nosilima, u ležećem položaju. U tom položaju možemo lako da uradimo UZ po protokolu. Upotrebljavamo nisko frekventne sonde, jer bolje prodiru kroz meka tkiva (bilo abdominalna, bilo kardiološka). Koristimo 4 prozora za pregled: **Hepatorenalni prozor:** Sonda se postavlja u aksilarnoj liniji. Marker je usmeren prema glavi. Tražimo slobodnu tečnost u desnom gornjem kvadrantu, pre svega hepatorenalno, u Morisonovom špagu. Pokrećemo anteriorno i posteriorno. Tako lako vidimo dijafragmu i takođe proveravamo ima li izliva u plućima. **Pregled perikardialnog prostora:** Postavimo sondu subksifoidno s markerom prema D ramenu. U tom pogledu prikažemo srce (pregled 4 komore). Gledamo srce i sve četiri komore. Pri tom se upitamo, ima li tečnosti u perikardnom prostoru ili ne, i da li postoje znaci tamponade srca. **Pregled splenorenalneg prostora:** Za splenorenalni prostor postavljamo sondu u zadnju aksilarnu ili srednju aksilarnu liniju, s markerom prema glavi. Levi bubreg je nešto više postavljen od desnog. Tražimo pre svega slobodnu tečnost intraperitonealno, naročito ispod dijafragme i oko levog bubrega. **Pregled retrovezikularneg prostora:** Sondu postavimo tik iznad simfize, najpre tangencijalno, potom sagitalno. Posmatramo tako da je marker usmeren prema glavi, onda ga okrenemo za 90 stepeni, tako da bude prema desnoj strani. Pitamo se ima li slobodne tečnosti intraperitonealno, ili ne. Orijentacija nam je bešika, obično ispunjena tečnošću. To je osnovni FAST pregled. Prošireni obuhvata još i pregled pleuralnih prostora i služi za potvrdu ili isključenje pneumotoraksa. Položaj sonde iz pogleda D i L gornjeg kvadranta pomerimo anteriorno i pogledamo prostor nad dijafragmom, čime proverimo, ima li slobodne tečnosti u pleuralnom prostoru. Potom sledi potvrda ili isključenje pneumotoraksa. Sondu postavimo u srednju klavikularnu liniju, između 2. i 3. rebra. Sondu postavimo sagitalno i krećemo polako prema dole. Gledamo pokrete pleure. Opažamo A linije, kao i „repove komete", što znači normalan nalaz. Pogledamo još u M mod-u. Pri izgledu na „peščanu obalu" možemo da isključimo pneumotoraks. Ukoliko je pa izgled kao „barcod", to bi značilo postojanje pneumotoraksa. Pneumotoraks konačno potvrdimo pomoću plućne tačke.

Zaključak: EFAST je pomoćni sastavni deo pregleda pacijenta na terenu. Redosled pregleda sami određujemo, zavisno od toga šta nam najviše odgovara i šta nam je najbliže. Daje nam puno korisnih informacija, koje nam pomažu pri dijagnozi i daljem pravilnom upućivanju pacijenta. Ultrazvučni aparat je sve manji, priručan, pregledan i takođe jeftin. Brzo se razvija i postaje sastavni deo urgentne i opšte medicine.

Ključne reči: urgentni ultrazvuk

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Broj apstrakta: 005

SYNDROMA HOIGNE

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DOM ZDRAVLJA "DR LJUBINKO ĐORĐEVIĆ" SVRLJIG, SRBIJA

Uvod: Hoigne-ov sindrom je nealergijska, pseudoanafilaktička, akutna, embolijsko-toksična, reverzibilna reakcija. Opisao ju je švajcarski lekar Rolf Hoigne 1959. godine kao grupu neuropsihijatrijskih simptoma nakon administracije prokain penicilina. Najveći broj slučajeva se javlja nakon parenteralne primene, a opisani su i slučajevi nakon peroralne primene penicilinskih preparata. Prevalenca je 1-3/1000.

Prikaz slučaja: dana 23.09.2016 godine pacijent A.B. starosne dobi 62 godine u našoj ambulanti prima ampulu Pancillina (benzilpenicilin, benzilpenicilin-prokain), zbog upale ždrela. U toku davanja terapije pacijent se žali na zujanje u ušima. Odmah obustavljena dalja administracija leka. U momentu pregleda pacijent izrazito uznemiren, konfuzan, ne odgovara na pitanja smisleno, pokušava da odgurne medicinsko osoblje i ustane sa kreveta, žali se na zatezanje u grudima i trnjenje leve polovine tela. Pregled pacijenta otežan zbog nesaradnje. Normalne prebojenosti kože i vidljivih sluzokoža, nema cijanoze. Tenzija 180/100mmHg. Saturacija kiseonikom 98%. Pulmo: nalaz uredan. Cor: tahikardija, tonovi jasni, šumovi se ne čuju. EKG zapis nije moguće načiniti zbog uznemirenosti i nesaradnje pacijenta. Nakon nekoliko minuta simptomatologija se smiruje. Dolazi do povlačenja svih simptoma i znakova osim blage uznemirenosti. Nalaz po sistemima uredan kao i neurološki nalaz. Pacijent opisuje preživljene halucinacije kao "strašno bubnjanje u glavi i nekakva čudovišta koja pokušavaju da mu uđu u usta". Otvorena i IV linija, intramuskularno dat sedativ i u pratnji medicinske ekipe transportovan na Kliniku za hematologiju, gde je dobio terapiju tečnostima, antihistaminikom i steroidima. Pacijentu rečeno da je alergičan na penicilinske preparate i da se obustavlja dalja primena lekova iz ove grupe.

Diskusija: Patofiziologija Sy Hoigne još uvek nije dovoljno razjašnjena. Postoje dve teorije. Prva vaskularna teorija se zasniva na tome da mikrokristali prokain penicilina, na mestu uboda igle gde je došlo do oštećenja na krvnim sudovima, dospevaju u krvotok i izazivaju tromboembolizaciju malih krvnih sudova mozga i pluća. (kod loše tehnike davanja, kada nije dat duboko i.m. ili kada zbog više uboda na malom prostoru dolazi do oštećenja zidova arterijskih krvnih sudova). Druga tzv. toksična teorija govori o tome da se molekul prokain penicilina u našem telu razlaže određenim enzimskim sistemima gde se uz pomoć enzima prokainesteraze sam prokain metaboliše do netoksičnih produkata. Pri smanjenoj enzimskoj aktivnosti prokainesteraze povećava se nivo prokaina u sistemskoj cirkulaciji i tako ispoljava toksično dejstvo na nervni sistem. Simptomi koji se javljaju od strane nervnog sistema rezultat su nadražaja limbičkog sistema i zbog njih se Hoigneov sindrom zove i prokainska psihoza. Simptomi nastaju nekoliko sekundi nakon administracije leka i traju nekoliko minuta do 1 sat. Simptomatologija: psihomotorna agitacija, panika, strah od smrti, konfuzija, slušne i vidne halucinacije, depersonalizacija, derealizacija, metalni ukus u ustima, pa i parcijalni ili generalizovani konvulzivni napadi. Pored neuro psihijatrijskih simptoma javljaju se i sistemski simptomi: tahikardija, hipertenzija, dispnoja. U literaturi je opisana pojava Hoigne sindroma nakon terapije amoksicilinom, ceftriaksonom, klaritromicinom, enoksaparin-natrijumom, lizinoprilom, panprazolom, fentanilom. Lečenje može biti u početku teško ako je osoba jako uznemirena. U terapiji koristiti sedative. Potrebno je sagledavanje od strane neurologa ili psihijatra zbog osećaja nelagode i straha. Nije potrebno obustaviti primenu penicilinskih preparata. Pratiocima i rodbini objasniti da nije dat pogrešan lek ili na pogrešan način, već da je to jedna od mogućih neželjenih reakcija. Za lekara je najbitnije da ovaj sindrom razlikuje od anafilakse-nema angioedema, urtikarije, bronhospazma i vaskularnog kolapsa, zbog terapije koja je dijametralno različita.

Ključne reči: Syndroma Hoigne

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POJAM, ZNAČAJ I RAZVOJ TAKTIČKE MEDICINE U SRBIJI

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1. ODSEK ZA SANITETSKO OBEZBEĐENJE, ODRED ŽANDARMERIJE, KRALJEVO, SRBIJA, 2. ODELJENJE ZA SANITETSKO OBEZBEĐENJE, KOMANDA ŽANDARMERIJE, BEOGRAD, SRBIJA, 3. OPŠTA MEDICINA, DOM ZDRAVLJA, KRALJEVO, SRBIJA, 4. KATEDRA ZA ANATOMIJU, MEDICINSKI FAKULTET, UNIVERZITET U NIŠU, SRBIJA

Uvod: Taktička medicina je specijalizovani oblik urgentne medicine prilagođen za sanitetsku podršku organima bezbednosti u vanrednim situacijama u kojima dominira nasilje (terorizam, samoubilački terorizam, talačke sitacije itd.). Principi taktičke medicine zasnivaju se na jednostavnim medicinskim i taktičkim postupcima preduzetih u taktičkim situacijama, neposredno nakon povređivanja sa ciljem pružanja samopomoći, pomoći drugim kolegama ili povređenim u najrazličitijim slučajevima.
Cilj: rada je da objasnimo čime se bavi taktička medicina, istoriju i početke formiranja u Srbiji.
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: „tactical medicine“, „course“, „tactical emergency care“, „Tactical Emergency medical support“ (TEMS). Pretraživanje je vršeno kroz: PubMed, Medline i elektronske časopise dostupne preko KoBSON-a kao i litratura raspoloživa u Biblioteci Medicinskog fakulteta u Kragujevcu. U obzir su uzeti radovi objavjeni na engleskom jeziku u periodu od 2002. do 2016. godine.
Rezultati sinteze: Taktička medicina prvobitno je razvijana da obezbedi brigu za pripadnike vojske. Tactical Combat Casualty Care (TCCC) razvijan je tokom 1990-tih, od strane vojske Sjedinjenih Američkih Država (SAD) na osnovu iskustva stečenog tokom bitke kod Mogadiša u Somaliji, u oktobru 1993. godine. Tradicionalni Emergency Medical Support (EMS) trauma protokoli pokazali su se neadekvatnim za vrste povreda koje su dešavale u borbenim situacijama. Prve preporuke TCCC objavljene su u avgustu 1996. god. Uvođenje ovih preporuka imalo je veliki uticaj na američku vojsku i na razvoj taktičke medicine u svetu. Danas se obuka iz taktičke medicine sprovodi preko kurseva koji traju od 1 do 5 dana. U SAD-ma, postoje i Međunarodne škole za Taktičku medicinu, koje nude obuku u trajanju od 2 nedelje. Savet sprovodi dva kursa: Emergency First Responder i Medicine in Remote Areas Course (MIRA). Izvršavanje teških i opasnih zadataka u kojima se reskira život, bili su ključni u donošenju odluke da se u okviru obuke policijskih službenika Žandrmerije počne sa obukom iz taktičke medicine. Naša ideja je bila da lekari iz Žandarmerije završe obuku po međunarodnim prihvaćenim standardima u navedenoj oblasti, a kasnije stečena znanja prenesu policijskim službenicima Žandarmerije. Nakon završenih kurseva koji izvodi Nacionalni savez za taktičku medicinu, lekari koji su završili kurseve izvodili su obuku po smernicama saveza u Nastavnom centru u Kuli. Obuka se odvija kroz scenarija koja se realizuju „Four Step Teaching“ metodama kao i postepenim uvođenjem sa radom na stanicama veština, traje 10 sati, radno je intenzivna, sadrži predavanja, demonstracije i praktičan rad na savladavanju scenarija–uz korišćenje manekena. Rad se odvija u manjim grupama uz pun fokus na radnje i postupke u visokorizičnim taktičkim okruženjima u toku zbrinjavanja pod vatrom i na taktičkom polju koje sprovodi pripadnik bezbednosnih snaga. Polaznici obuke stiču veštine i znanja neophodna za potpuno individualno i samostalano zbrinjavanje povređenih u visokorizičnim sredinama i okruženjima sa upotrebom vatrenog oružja. U saradnji sa Nacionalnim savetom za taktičku medicinu Srbije u program obuke u potpunosti su implementirane internacionalne preporuke za taktičku medicinu Tactical Combat Casualty Care Guidelines for Medical Personnel 2015.godinu.
Zaključak: Taktička medicina prvobitno je zamišena kao funkcija podrške za vojne jedinice a kasnije za policijske taktičke timove. Njena uloga postala je jasna tokom vremena a principi TCCC su primenjivi i u drugim tipovima operacija (terorizam, samoubilački terorizam, masovne nesreće, talačke situacije). Razvoj, standardizacija opreme i primena taktičke medicine u Srbiji treba da se odvija u saradnji sa Nacionalnim savetom za taktičku medicinu Srbije i mora biti u skladu sa međunarodno važećim preporukama.

Ključne reči: taktička medicina, kurs, obuka.

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Broj apstrakta: 007

DIJAGNOSTIČKE DILEME LEKARA NA TERENU

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SHMP, DOM ZDRAVLJA KIKINDA, SRBIJA

Uvod: U uslovima nepostojanja velikog kliničkog centra, uzimajući u obzir skromne potencijale opštih bolnica manjih mesta, kao i hronični nedostatak specijalista, ekipe hitne pomoći imaju nezahvalan zadatak da brzo procene i postave radnu dijagnozu, kao i da donesu odluku o eventualnom transportu pacijenta, imajući na umu kapacitete tog centra.
Cilj: Prikaz slučaja kod pacijenta kod koga postoje preklapajući simptomi dve različite patologije od kojih je jedna bezazlena, a druga životno ugrožavajuća.
Materijal i metoda: Prikaz slučaja na osnovu dostupne medicinske dokumentacije (izveštaj psihijatra i otpusna lista iz opšte bolnice Kikinda, odeljenje interne medicine) i pregleda pacijenta
Prikaz slučaja: Dana 14.03.2017 u 00:05 SHMP Kikinda dobija poziv od muškarca starog 55 godina koji se žali na jaku glavobolju, malaksalost i mučninu. Iz elektronskog kartona saznajemo da je pacijent hronični alkoholičar (F10) koji se dugi niz godina na psihijatrijskom lečenju od alkoholizma. Od terapije je na Bensedin tableta 5mg. Od dijagnoza u kartonu ima Polyneuropathia alcoholica (F 60.8) i Cholelithiasis (K80). Po dolasku u kuću pacijenta, u prisustvu supruge i sina, zatičemo ga u ležećem položaju, svesnog, alkoholisanog. Tegobe: Žali se na levostranu glavobolju migrenoznog tipa, mučninu i malaksalost. Navodi da se ne trezni već mesec dana. Vidno uznemiren, preznojen i tahpnoičan. Dodatnim ispitivanjem, saznajemo da otežano disanje počinje od pre par dana kao i „tišteći osećaj“ u grudima. Fizikalni nalaz: Nalaz na plućima je nespecifično pooštreno vezikularno disanje, respiratorna frekvenca 20/min. Srce auskutatorno ritmično, bez patoloških šumova, potkolenice bez edema, tenzija 90/50mmHg, ŠUK 4,5 mmol/l. EKG pokazuje sinusni ritam, normogram, SF 70/min, sa ST elevacijom u V2, V3, V4 od 1,5mm. Raniji EKG nema. Odlučujem da pacijenta transportujem do internog odeljenja opšte bolnice Kikinda. Otvorena venska linija. Od terapije uključen Klopidix 300mg i kiseonik 6l/min. Pacijent zadržan na posmatranju preko noći, sa negativnim troponinima i na odeljenju primio 500ml 0,9% NaCl i amp Ranisana. Na otpustu EKG je identičan prethodnom bez normalizacije ST segmenta.
Diskusija: Simptomatologija zamaranja, uznemirenosti, tahipnee, glavobolje i mučnine ide u prilog hroničnog alkoholizma, koju je bilo moguće lečiti u kućnim uslovima, dok sa druge strane - zamaranje, uznemirenost, nedostatak daha sa tahipneom, hipotenzija sa ST elevacijom u V2, V3, V4 signifakantni su znaci infarkta miokarda prednjeg zida.
Zaključak: Postojanje opservacije u prostorijama službi za hitnu medicinsku pomoć kao i dostupnost dijagnostike u vidu brze laboratorijske analize (krvne slike, troponina i kardiospecifičnih enzima) znatno bi doprineo smanjenju opterećenosti manjih zdravstvenih centara, gde bi pacijent mogao biti adekvatno zbrinut na nivou hitne pomoći.
Ključne reči: dilema, akutni infarkt miokarda, hronični alkoholizam.

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OD GRIPA DO HIRURŠKOG STOLA

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SLUŽBA URGENTNOG PRIJEMA, ZC ZAJEČAR, SRBIJA

Uvod: U sezoni gripa, povišena temperatura nije samo simptom datog oboljenja. Adekvatna anamneza i pažljiv pregled dovode do tačne dijagnoze i izlečenja pacijenta.
Metoda: Prikaz slučaja iz prakse Službe trijaže i urgentog prijema ZC Zaječar
Prikaz slučaja: Dana, 24.01.2017.god., u sezoni gripa Službi urgentnog prijema ZC Zaječar javlja se S.C. starosti 65 godina zbog povišene temperature od 40 stepeni i mučnine. Pacijent navodi da se lekaru opšte prakse, da je na antibiotskoj terapiji četiri dana ali da nema poboljšanja opšteg stanja.
Inspekcijom se uočava žućkasta prebojenost kože i vidljivih sluzokoža, koža je suva sa smanjenim turgorom. Kliničkim pregledom se ne nalazi značajno odstupanje od normalnog fiziološkog nalaza. Na duboku palpaciju, prisutna diskretna bolna osetiljivost u epigastrijumu. Svi vitalni parametri bez odstupanja: TA-120/70mmHg, SF100/min, SpO2-97% Temp-40,1C^0, ŠUK-7,5mmol/L. Ekg uredan. Pacijent zadržan zbog opservacije gde mu se uzima krv za analizu, uključuje rehidrataciona terapija i zakazuje ultrazvuk trbuha. U toku razgovora, saznajemo da kao kućnog ljubimca poseduje psa. Laboratorija pokazuje porast u jetrenim enzimima ALT 76, AST 54, gGt 407, bilirubin 43,2 i porast leukocita 12,5×10^9. Ultrazvučnim pregledom uočene su više simplex cisti u parenhimu jetre, što nas navodi da posumnjamo na Echinococcosis. U konsultacije pozivamo hirurga i infektologa koji potvrđuju našu sumnju, zakazuje se CT abdomena i pacijent se prebacuje na infektivno odeljenje. Nakon višednevnog lečenja albendazolom pacijent je podvrgnut hirurškoj laporaskopskoj intervenciji gde se radi ekstiripacija ehinokokne ciste. Pacijent je otpušten u dobrom opštem stanju.
Diskusija: Opservacija pacijenta sa ovakvom kliničkom slikom je od presudnog značaja, jer u periodu gripa, febrilnost može biti prepisana toj bolesti. Sa druge strane ikteričnost i febrilnost mogu nas uvesti u niz dilema od virusnog hepatita do upale žučne kese. Zahvaljujući adekvatnoj dijagnozi i brzom uključivanju antiparazitarne terapije za par dana je došlo do smanjenja temperature i stabilizacije opšteg stanja, tako da je nedelju dana kasnije pacijent podvrgnut hirurškom lečenju. Samim tim su izbegnute komplikacije u smislu diseminacije u druge organe. Perforacija ciste oslobađa alergene a opisane su i ozbiljne anafilaktičke reakcije. Pravovremena dijagnostika i lečenje, naravno, spašavaju život.
Zaključak: Adekvatna anamneza, brza dijagnostika i ispravno lečenje su siguran put do izlečenja.
Ključne reči: Grip, temperatura, anamneza, Echinococcosis.

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SUDSKO-MEDICINSKI ASPEKT SMRTNIH POVREDA GRUDNOG KOŠA I TRBUHA

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Uvod: Povreda predstavlja nasilno oštećenje zdravlja, izazvano uglavnom dejstvom spoljašnje sile. U sudskoj medicini, ona označava narušavanje anatomske celovitosti i fiziološke funkcije tkiva i organa. Mehaničke povrede nastaju dejstvom mehaničkog oruđa. Dele se na nespecifične i specifične. Sudske medicine izučava strukturu mehaničkih povreda i samim tim omogućava određivanje uzroka smrti, tipa povreda, karakteristika povrednog oruđa i njihovog mehanizma dejstva.

Materijal i Metode: Istraživanje je obavljeno u Zavodu za sudsku medicinu u Nišu, analizom obdukcionih zapisnika za 2014. i 2015. godinu. Dobijeni podaci su statistički obrađeni, naučno analizirani i prezentovani primereno predmetu i ciljevima istraživanja.
Rezultati: Prilikom analize obdukcionih materijala za 2014. i 2015. u Zavodu za sudsku medicinu u Nišu, od ukupno 1797 obdukovanih, bilo je 342 traumatizovanih (19%). Od ukupnog broja traumatizovanih, 292(85%) je bilo sa mehaničkim povredama grudnog koša i/ili trbuha i kombinovanim povredama. Povrede grudnog koša su bile zastupljene u 56 slučaja(19%), izolovane povrede grudnog koša takođe u 56 slučaja(19%), izolovane povrede trbuha u 16 slučajeva(5%) kombinovane povrede u 85 slučajeva(29%). Povrede organa grudnog koša i trbuha bile su uzrok smrti u 128 slučajeva(60%), dok je u 85 slučajeva(40%) uzrok smrti bio u vezi sa povredom nekog drugog organa. Najčešća okolnost povređivanja bile su saobraćajne nezgode- 117 slučajeva(55%). U 21(18%) slučaju žrtve su bile biciklisti ili motociklisti(18%), a u 11 slučajeva(9%) smrt je nastala kao posledica udara vozom. U 23slučaja(11%), smrt je nastupila nakon pada sa visine, a u 25 slučajeva(12%) usmrćeni je bio ustreljen. I kod povreda grudnog koša i kod povreda trbuha dominiraju višestruke povrede, dok su kod kombinovanih povreda najzastupljeniji su prelom rebara, hemopneumotorax i rascep jetre.
Ključne reči: povrede grudnog koša, povrede trbuha, kombinovane povrede, saobraćajni traumatizam.

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UTICAJ INTRAOPERATIVNE PRIMENE FENTANILA ILI REMIFENTANILA TOKOM OPŠTE ENDOTRAHEALNE ANESTEZIJE NA OPORAVAK I INTENZITET RANOG POSTOPERATIVNOG BOLA U HIRURGIJI KOLOREKTALNE REGIJE

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Uvod: Remifentanil je prvi opioid ultrakratkog dejstva. Njegov brz metabolizam krvnim i tkivnim nespecifičnim esterazama omogućava mu vrlo brz prestanak analgetskog efekta.
Cilj ove studije je da ispita brzinu oporavka, intenzitet ranog postoperativnog bola i sistemsku primenu analgetika nakon upotrebe fentanila i remifentanila tokom opšte endotrahealne anestezije u hirurgiji kolorektalne regije.
Materijal i metode: Ispitivanje je sprovedeno na tridesetoro bolesnika podvrgnutih nekoj kolorektalnoj operaciji u opštoj endotrahealnoj anesteziji. Njih desetoro je za intraoperativnu analgeziju dobijalo Fentanil (grupaF) u ukupnoj dozi 0.7±0.1mg; druga grupa od deset ispitanika je dobijala Remifentanil u dozi od 1mg/kg za indukciju anestezije a nakon endotrahealne intubacije doza održavanja je bila 0.15μg/kg/min (grupaR); treća kombinovana grupa (F-R), preostalih deset ispitanika, dobijala je fentanil 0.2mg pre indukcije u anesteziju i pre hirurške incizije još 0.2mg. Intraoperativna analgezija je održavana remifentanilom u dozi 0.15μg/kg/min. Za postoperativnu terapiju bola upotrebljavali smo tramadol u maksimalnoj dnevnoj dozi od 400mg. Brzina oporavka i intenzitet ranog postoperativnog bola procenjivana je Remzijevom skalom (RS) i Numeričkom bodovnom skalom (NRS) svakog sata.
Rezultati: Pacijenti iz prve grupe (F) jedan sat nakon operacije imali su prihvatljiv nivo bola u miru (NRS=3±1), ali mnogo veći nivo sedacije (RS=3±1). Pacijenti druge grupe (R) su bili mnogo aktivniji (RS=2±1) ali sa jaćim postoperativnim bolom (NRS=5±2). Pacijenti treće kombinovane grupe (F-R) imali su manji nivo sedacije (RS=2±1) i prihvatljiv nivo bola (NRS=3±1). Upotreba tramadola tokom prvog postoperativnog dana bila je mnogo veća u grupi R u odnosu na grupu F, 18% a u odnosu na treću kombinovanu grupu 13% ($p<0,05$).
Diskusija: Kombinacija Fentanila i Remifentanila je najprihvatljivija zato što redukuje sistemsku upotrebu analgetika u tretmanu bola tokom operacija u kolorektalnoj hirurgiji rađenih u opštoj endotrahealnoj anesteziji.

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Ključne reči: Fentanil, remifentanil, postoperativni bol, kolorektalna hirurgija

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ZNAČAJ TELEMEDICINE U HITNIM STANJIMA

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Uvod: Moderan zdravstveni sistem nastoji da poveća kvalitet zdravstvene zaštite. Uzimajući u obzir prednosti savremene tehnologije i značaj adekvatne dijagnoze i lečenja hitnih medicinskih stanja, nameće se kao logičan zaključak o potrebi da se moderna tehnologija koristi u procesu zbrinjavanja kriičnih bolesnika. Telemedicina predstavlja pružanje zdravstvenih usluga koristeći informacione i komunikacione tehnologije, bez obzira na geografski položaj medicinskog tima, pacijenta ili medicinske opreme. Aktivna primena telemedicine bi doprinela smanjenju troškova u zdravstvu, poboljšanju saradnje između različitih nivoa zdravstvene zaštite, omogućava brzu konsultaciju u hitnim medicinskim stanjima, u slučajevima masovnih nesreća, kao i obuku zdravstvenih radnika.
Materijal i metode: Retrospektivna analiza dostupne elektronske literature.
Rezultati: Zdravstveni sistemi imaju za cilj smanjenje troškova, standardizacije usluga, i na kraju i dobre rezultate. Formiranje virtuelnih timova, uz pomoć informacione tehnologije, doprinele bi boljoj organizaciji, i dale značajno poboljšanje u kvalitetu rada zdravstvenih radnika, brzinu i tačnost dijagnoze i, samim tim, brže donošenje odluka o daljem terapijskom efektu sa nižim troškovima zdravstvene zaštite. Imajući sve ovo u vidu, integracija telemedicine u zdravstvenim ustanovama, posebno u službi za pružanje hitne medicinske pomoći su od suštinske važnosti za našu blisku budućnost.
Diskusija: Telemedicinskih aplikacije uključuju: telediagnostiku, telekonsultaciju, telemonitoring, telekonzilijum. Ovaj telemedicinski sistem, u zemljema gde je integrisan, zauzima posebno mesto u oblasti radiologije, patologije, hitnih medicinskih stanja, kardiologije, ortopedije, hirurgije, i onkologije. Hitna medicinska stanja zahtevaju dobru saradnju sa opštim bolnicama i kliničkim centrima, te bi upotreba informacione i komunikacione tehnologije omogućila formiranje virtuelnih timova - grupa od više lekara koji rade u drugom vremenu, geografskim i organizacionim prostorima sa ciljem uspostavljanja brže i tačnije dijagnoze.
Pokušaj implementacije telemedicine u Crnoj Gori je ukazao na nedostatak medicinske opreme koja podržava povezivanje i umrežavanje. Takođe, primećen je značajan nedostatak informacija među samim zdravstvenim radnicima koji se odnose na korisnost i prednost telemedicine.
Ključne reči: Telemedicina, hitna medicinska stanja, hitna medicinska pomoć.

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WOLF-PARKINSON-WHITE SYNDROME (WPW), DIJAGNOZA I TRETMAN U URGENTNOM ODELJENJU

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Uvod: Wolff-Parkinson-White (WPW) sindrom je stanje u kome postoji dodatni električni put u srcu. Ovo može dovesti do pojave brzog pulsa (tahikardije). WPW sindrom je jedan od najčešćih uzroka pojave brzog pulsa kod odojčadi i dece. Kod osoba sa WPW sindromom, neki od električnih signala u srcu idu preko dodatnog puta. To može dovesti do veoma ubrzanog rada srca koju zovemo supraventrikularna tahikardija. Većina ljudi sa WPW sindromom nemaju

nikakve druge probleme sa srcem. Međutim, ovaj sindrom može biti povezan sa drugim srčanim bolestima, kao što je Ebštajnova anomalija. Ovo stanje se sreće u porodicama.
Materijal i metode: Izvor podataka su protokoli ZHMP Crne Gore, i otpusne liste Klinike za kardiologiju, Kliničkog Centra Crne Gore.
Prikaz slučaja: Žena, 34 godina, dolazi u hitnu medicinsku pomoć, zbog brzog i nepravilnog srčanog rada. Negira gubitak svesti. Navodi da je u prošlosti, u nekoliko navrata, imala slične simptome, koji su iznenada pojavili, u trajanju od nekoliko sekundi do jednog minuta, a zatim prolazili spontano. Prilikom pregleda, ona je svesna, orijentisana, eupnoična u miru, TA 100/50 mmHg, EKG-AF, SF oko 200/min, sa varijabilnim teškim znacima preekscitacije. Cor: akcija aritmična, tahikardija, jasni tonovi, šum se ne čuje. Pulmo: normalna respiratorni šum. Postavljena venska linija, ordinirana amp Amiodarone. Pacijent je prebačen u Urgentni centar, gde je pacijentkinja primljena u jedinicu koronarne nege. Nastavljena je terapija amiodaronom, po prijemu u Koronarnu jedinicu, gde je isporučen sinhroni DC šok 150J, i uspostavljan je sinusni ritam. Pacijentkinja je zadržana na Klinici za kardiologiju, gde se vrši ablacija. EKG na otpustu: SF oko 55/min, PQ 0,16sec, plitko negativni T u D3, AVL, bez promena ST segmenta**.**
Zaključak: Incidencija WPW sindroma u opštoj populaciji je 0.1-0.4%. Klinički se može sresti u različitim oblicima tahikardije PSVT, AF, atrijalnog flatera, VF, kao i pojavom iznenadne srčane smrti. Zbog razvoja potencijalno opasne aritmije, rana dijagnoza i inicijalna terapija u hitnoj medicinskoj pomoći je od velikog značaja**.**
Ključne reči: dijagnoza, početni tretman, Zavod za Hitnu medicinsku pomoć.

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OPERATIVNO LEČENJE DISLOCIRANIH DVODELNIH PRELOMA PATELE RANA OPERACIJA - BOLJI REZULTAT

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OPŠTA BOLNICA VRŠAC, SRBIJA

Uvod: Prelomi patele su najčešća koštana lezija na kolenom zglobu. Oni čine oko 1% svih preloma koštanog sistema. Najčešće se javljaju kod ljudi u srednjim godinama i dva puta su češći kod muškaraca. Prelomi nastaju dejstvom direktne sile,i to udar-pad na čašicu ili indirektnim mehanizmom-snažnim dejstvom natkolene muskulature spoticanjem ili pri padu. Dislokacija koštanih okrajaka je česta a prelom je dvodelan ili višedelan. Prelom se dijagnostikuje kliničkim pregledom a preciznije rentgenološkim snimkom.
Materijal i metode: Pregled dostupne dokumentacije OB Vršac
Rezultati: Dislocirani dvodelni prelomi se uspešno mogu sanirati jedino hirurškim putem. Kod zdravih pacijenata nema razloga da se operativni zahvat ne uradi gotovo istog dana kada su se i povredili. Ranom operacijom se izbegavaju pojave velikih otoka kao i kožnih promena, bula. Čekanje i stavljanje gipsane imobilizacije ove pojave samo produbljuje, mogućnost trombo embolijskih komplikacija raste a samo lečenje duže traje.
Osteosinteza patele metodom ZUGGURTUNG, izvodi se sa dve Kiršnerove igle uzdužno i paralelno postavljene i obmotane žicom je metoda koju u ovakvim situacijama mi primenjujemo.
Rezultati: Tokom 2015-17. u OB Vršac je ovom metodom operisano 12 povređenih sa dvodelnim prelomom patele u prvih 24 sata po povređivanju. Bilo je 8 muškaraca, 4 žene prosečne starosti 42 god. Nakon prijema, dijagnostike, laboratorijske pretrage i anesteziološkog pregleda u uslovima spinalne anestezije operisani su ovom hirurškom metodom. Svi operisani su prohodali već sledećeg dana uz pomoć štaka uz delimični oslonac na operisanu nogu. Bolnicu su napustili bez gipsane imobilizacije od 7. do 10. dana. Konci su skinuti nakon 14 dana. Fleksiju kolena od 90 stepena su postigli nakon mesec dana a pun obim pokreta u kolenu su dobili nakon 3-6 meseci. Operisani su se lišili štaka nakon 2-3 meseca. Komplikacija nije bilo. Bolovanje je

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trajalo od 2-4 meseca. Vađenje osteosintetskog materijala je rađeno nakon 8-16 meseci od operacije.
Zaključak: Ranom operacijom ovih preloma, u prvih 24 sata nakon povređivanja, izbegavaju se najčešće postoperativne komplikacije, bitno se skraćuje boravak u bolnici, dužina lečenja je kraća, a primenom hirurške metode ZUGGURTUNG izbegava se postoperativa upotreba gips imobilizacije što bitno ubrzava povratak funkcije kolena i smanjuje troškove lečenja.
Ključne reči: patela, prelom, zuggurtung

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TRAUMA GRUDNOG KOŠA-UČESTALOST I ZBRINJAVANJE

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Uvod: Povrede grudnog koša zauzimaju posebno mesto u traumatologiji i predstavljaju važan zdravstveni problem jer uzrokuju smrtnost pacijenata svih životnih dobi. Dele se na zatvorene i otvorene. Zatvorene povrede nastaju dejstvom tupe sile a kontinuitet grudnog koša je očuvan. Otvorene povrede su penetrantne i nastaju od strane projektila ili hladnim, oštrim oružjem a njihova težina zavisi od lokalizacije, dubine, veličine sile kojom je povreda izazvana i ugla po kojim je naneta. Način hirurškog zbrinjavanja svakako zavisi od vrste i težine povreda.
Materijal i metode: Istraživanjem su obuhvaćeni pacijenti koji su imali akutnu povredu grudnog koša u periodu od 1. januara 2014.god do 01.01.2017.god. Svi su hospitalizovani u Klinici za grudnu hirurgiju VMA. Svakom pacijentu je urađen dijagnostički standard koji pored laboratorijskih analiza uključuje Rtg grudnog koša, MSCT grudnog koša a kod povreda grudne kosti i obavezan UZ srca. Nakon inicijalne opservacije primenjene su odgovarajuće grudno-hirurške procedura: pleuralna drenaža, VATS ili otvorena hirurgija.
Rezultati: u periodu od 01.01.2014 god.do 01.01.2017god ukupno je zbog torakalne traume u Klinici za grudnu hirurgiju hospitalizovano 131 pacijent. Žena je bilo 25(19%) a prosečna starost svih pacijenata je bila 62 godine. Prelomi rebara praćeni pneumotoraksom su rešeni pleuralnom drenažom kod 42(32%) pacijenata. Ukupno 35(26.7%) povređenih primljeno je sa kliničkim i radiološkim znacima hemotoraksa i hemopneumotraksa i oni su rešeni na isti hirurški način. Uz ove povrede tri pacijenta su imali pneumomedijastinum. Izolovane serijske prelome rebara bez znakova pleuro-pulomonalne lezije našli smo kod 26(19.8%). Kod 1(0.7%) primenjen je VATS radi evakuisanja hematoma u pleuralnom prostoru. Prelom grudne kosti se desio kod 11(8.3%) pacijenata i konzervativno je praćen i rešen. Izolovane kontuzije pluća MSCT-om grudnog koša su dijagnostikovane kod 7(5.3%) pacijenta i takođe, opservirane i konzervativno zbrinute. Od otvorenih povreda grudnog koša primili smo šest pacijenata (4.5%) povređenih ubodom noža i svima je urađena eksploracija rane sa ili bez torakalne drenaže. 3(2.3%) pacijenta sa prostrelnim povredama grudnog koša su hospitalizovani, dvoje je hitno operisano i rađena je eksplorativna mala torakotomija sa atipičnom resekcijom povređenih delova pluća a treći je već na hitnom hirurškom prijemu egzitirao. Zbog komplikacija nastalih tokom boravka na klinici i razvoja empijema pleure 2(1.5%) pacijenta su operisana klasičnom torakotomijom i tada je urađena dekortikacija pleure. Letalni ishod je konstatovan ukupno kod sedam pacijenata(3.8%).
Diskusija: U periodu u kojem smo pratili naše povređene pacijente najviše je stradalo muškaraca u to u sedmoj deceniji života. Najviše povreda je bilo prilikom pada, saobraćajnih udesa i fizičkih konflikata koji su praćeni kontuzijama grudnog koša sa prelomima rebara i komplikacijama istih. Prelomi grudne kosti su klinički značajni, jer se uvek mogu očekivati i povrede madijastinalnih organa, najčešće kontuzije srca. Devetoro povređenih su imali otvorene povrede grudnog koša, petoro je operisano, hirurški su zbrinute povrede perifernih delova pluća i manjih krvnih sudova. Video-asistirana torakoskopija je rađena nakon 48h od prijema pacijentkinje zbog nalaza organizovanog hematoma u pleuralnom prostoru koji je uočen na

MSCT-u grudnog koša. Inače, povreda je nastala 18 dana ranije i lečena u regionalnom centru a kako nije došlo do radiografske regresije zasenčenja i pored prisutnog torakalnog drena upućena je u našu ustanovu radi daljeg lečenja. Dekortikacije pleure su hirurške procedure kojima se najuspešnije leče bilo koje vrste empijema koje u traumi grudnog koša. Nastaju kod nerešenih formi hemotoraksa i prisutnih koaguluma koji su se u međuvremenu inficirali. Na osnovu analize podataka primljenih traumatizovanih pacijenta u periodu od prethodne tri godine došli smo do zaključka da je najveći procenat pacijenata (60%) bio hospitalizovan zbog zatvorenih povreda grudnog koša a najčešće primenjena grudno-hirurška intrevencija je plasiranje torakalnog drena. Male torakotomije imaju veliki značaj u eksploraciji i zbrinjavanju otvorenih povreda pluća i susednih anatomskih struktura. VATS je svakako značajan terapijski izbor ali ta metoda se još uvek ne primenjuje u obimu u kome je indikovana jer se grudni hirurzi još uvek edukuju i tehnički usvajaju način rada koji ona zahteva. Dekortikacija pluća je operacija kojom se rešavaju komplikacije traume pluća koje su udružena sa lokalizovanom intratorakalnom infekcijom.

Ključne reči: Trauma, grudni koš, hirurško lečenje

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HIPERTENZIJA KOD MLADIH OSOBA NA PODRUČJU OPŠTINE TIVAT

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Uvod: Hipertenzija se definiše kao stanje povišenih vrijednosti krvnog pritiska, sistolnog >140 i dijastolnog više >90mmHg i najčešće je oboljenje današnjice. Glavni je faktor rizika za moždani udar, infarkt miokarda, hronične bolesti bubrega. Svjetska zdravstvena organizacija procjenjuje da oko 600 miliona ljudi boluje, a da oko 3 miliona godišnje umre od posledica hipertenzije. U 95% slučajeva je primarna, koja se razvija kao rezultat faktora okoline u kombinaciji sa genetskim faktorima, a u samo 5% je sekundarna, odnosno rezultat druge bolesti. Najčešće se javlja kod starijih od 50 godine života, međutim u današnje vrijeme, prije svega zbog promjena načina života (stresa, neadektvatne ishrane), sve se češće javlja i kod mlađih osoba.
Metod rada: Pregled podataka iz ambulantnih protokola za 2014. i 2015. koje se odnose na pacijente starosti između 35. i 45., tretirane u ambulanti hitne pomoći zbog hipertenzije.
Rezultati: Tokom 2014. u ambulanti Zavoda za HMP u Tivtu (14 031 stanovnik, prema posljednjem popisu), pregledano je 7096 pacijenata. Među njima, 34 osobe tražene starosne grupe su tretirani zbog hipertenzije i propratnih tegoba, što čini 0.44%. U 2015. broj pregleda je iznosio 8884, a njih 60, odnosno 0.67% tražene starosne grupe. Tokom obje godine odnos muškaraca i žena iznosio je približno 1:1,3. Vrijednosti krvnog pritiska su se kretale za sistolni 140-220mmHg, i 90-120mmHg za dijastolni. Najčešća propratna tegoba je bila glavobolja, a od ostalih navodili su vrtoglavicu, nestabilnost, pritisak u glavi, zujanje u ušima, nelagodnost u grudima.
Diskusija: Na vrijednosti krvnog pritiska utiču faktori vezani za životno okruženje, klima, način ishrane. Među njima, najčešće istraživan je režim ishrane. Decenijama unazad kao glavni oblik nefarmakološkog liječenja hipertenzije preporučivao se restriktivni unos soli. Međutim, studije pokazale su da promjene u cjelokupnom načinu ishrane imaju veći uticaj na prevenciju i liječenje visokog krvnog pritiska, nego sama restrikcija soli. Još 1986. godine objavljeni su rezultati kliničkih studija koje su dokazale niže vrijednosti krvnog pritiska vegeterijanaca, koji unose veće količine minerala i vlakana, u odnosu na one koji ne primjenjuju vegeterijansku dijetu. Danas, pošto vegetarijanstvo nije široko rasprostranjeno, preporučuje se primjena mediteranske ishrane. Ona se sastoji od visokog unosa maslinovog ulja, leguminoza, žitarica, voća, povrća, umjerenog do visokog unosa ribe i umjerenog unosa vina i mliječnih proizvoda i nizak unos mesa i mesnih prerađevina. Brojne studije su pokazale da je najučinkovitija komponenta

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maslinovo ulje koje pozitivno djeluje na smanjenje kako sistolnog tako i dijastolnog pritiska. Hrana bogatija mineralima takođe doprinosi prevenciji i smanjenju vrijednosti hipertenzije. Sitna morska riba je naročito bogat izvor kalcijuma. (dokazano je da osobe koje uzimaju suplemente kalcijuma imaju niže vrijednosti krvnog pritiska). Područje Mediterana omogućava stanovništvu ugodniji život sa nešto manje stresa, nego kontinentalno područje. Sa velikim brojem sunčanih dana, stanovnici mediteranskog pojasa više vremena provode napolju, aktivniji su. Veliki broj tradicionalnih svečanosti, koje su karatkeristične za sve djelove mediteranskog pojasa, obezbjeđuju razonodu, druženje sa prijateljima i porodicom. Gradovi su sa manjim brojem stanovnika. Zbog toga postoji veća povezanost sa zajednicom, nasuprot otuđenosti i uzbrzanom životu u kontinentalnim krajevima i velikim gradovima na zapadu. Klima Mediterana je blaga, temperaturnim razlikama između godišnjih doba su male, tako da djeluje umirujuće. Oscilacije vazdušnog pritiska su male, što pogoduje održavanju krvnog pritiska u normalnim vrijednostima. Prema istraživanju zdravlja stanovnika Srbije iz 2013. godine, hipertenzija nadjena kod 28% ispitanika starosne grupe 35-45 godina, što je značajno više u odnosu na procenat hipertenzije nađene u ukupnom broju pregledanih u HMP Tivat u toku jedne godine.
Zaključak: Zbog velikog značaja hipertenzije u nastanku drugih oboljenja, zdravstveni radnici treba da rade na otkrivanju i tretmanu hipertenzije, ali i na promovisanje stila života koji smanjuje prevalencu hipertenzije u opštoj populaciji**.**
Ključne riječi: hipertenzija, Mediteran, ishrana, klima, stil života

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DISEKANTNA AORTA – SLUČAJ NEDOVOLJNO DOBRE KOMUNIKACIJE IZMEĐU LEKARA PREHOSPITALNOG I HOSPITALNOG NIVOA

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Uvod: Disekantna aorta se definiše kao odvajanje slojeva ziva krvnog suda. Cepanje intime dovodi do stvaranja lažnog lumena, koji propagira proksimalno ili distalno od mesta cepanja. Upliv krvi između slojeva zida dovodi do smanjenja protoka krvi ka organima, a porast pritiska u lažnom lumenu do rupture aorte. Smrtnost je velika, iznosi oko 50%, i održava se i dalje, pre svega jer je ovo oboljenje na koje se “ne misli”.
Materijal i metode: Prikaz slučaja na osnovu dostupne medicinske dokumentacije
Prikaz slučaja: Ambulanta Zavoda sa HMP CG, Tivat, 28.02.2017: Pacijentkinja M.P., 46 godina dolazi u pratnji porodice zbog bola u grudima, jakog intenziteta, osećaja kidanja daha i slabosti. Bol je počeo 15-tak minuta pre dolaska, počeo je u predelu leđa, desno, u nivou rebarnog luka, a zatim se proširio pojasno napred, u nivou rebarnih lukova i naviše, iza grudne kosti, sa zračenjem u vrat. Preznojila se. Zbog bola ne može duboko da udahne. Od ranijih bolesti navodi 'probleme sa kičmom i upalu živca'. Na pregledu pacijentkinja uznemirena, zauzima prinudni polusedeći položaj. Navodi da je bol jači u ležećem položaju. Koža i vidljive sluzokože, koža orošena znojem, dispnoična. Vitlni parametri: SO2 96%; TA 70/40mmHg (tenzija merena na obe nadlaktice pokazuje iste vrednosti); Glikemija 10,6 mmol/l. Pulmo: plitko disanje, bez propratnih šumova. Cor: tiši srčani tonovi. Abdomen: mek, palpatorno bolno neosjetljiv. EKG: Sinusni ritam, Sf oko 60/min, normogram, RR' u V1-V3, duboki S zupci u D2, D3 i aVF, ST elevacija u V1 i V2, plitka depresija ST segmenta u D2, D3, aVF, T talas negativan u V4 i V5. Otvoren venski put, dat analgetik amp. Zodol i.v. u bolusu, a zatim i sol. NaCl 0,9% 500ml. U toku transporta: pacijentkinja navodi da je bol manji i da se 'malo bolje oseća'. U prijemnom odeljenju bolnice dežurnom lekaru preneseni podaci o stanju pacijenta, sa sumnjom na postojanje disekcije aorte. Pacijentkinja ostaje na posmatranju. Sledećeg dana 01.03.2017. u 12:15. primljen poziv za kućnu posetu, u kojem se navodi da je pacijentkinja nađena onesvešćena, na podu u kupatilu. U 12:20h ekipa na licu mesta zatiče žensku osobu, starosti 46 god, bez vitalnih znakova.

Ekipa konstatuje smrt. Prilikom uzimanja podataka o pacijentkinji, iz medicinske dokumentacije, lekar doznaje da je preminula, nakon pregleda u HMP dan ranije, transportovana u bolnicu, odakle je otpuštena nakon par sati kao blaža hipotenzija, sa predlogom da dođe na dodatna ispitivanja.

Diskusija: Bolest disekantne aorte je veoma teška za dijagnostiku. Često se postavlja tek pri obdukciji. Klinička slika zbog jakog bola može da liči na infarkt. Međutim, karakteristike bola, koji je razidirući i šetajući, mogu da usmere razmišljanje ka disekciji aorte. Iako je uzrok bolesti visok krvni pritisak, u trenutku cepanja intime, odnosno nastanka bola, pacijenti su izrazito hipotenzivni, kao što je bila naša pacijentkinja. Pritisak je meren na obe ruke, zbog mogućnosti postojanja razlike u vrednosti krvnog pritiska, koja u ovom slučaju nije nađena. Ishemijske promene na EKG zapisu uz izgled pacijentkinje, sa izrazito bledom kožom i vidljivim konjuktivama, ukazuju na gubitak cirkulatornog volumena (rezultat gubitka krvi u lažni lumen), prije nego na infarkt miokarda u razvoju (ovo je kasnije potvrđeno u bolnici, gde su nađene niske vrednosti HGB).

Obzirom na ozbiljnost radne dijagnoze, uz hitan transport pacijenta do najbliže bolnice indikovana je nadoknada volumena i oksigenacija. Nakon primljenog analgetika i.v. i 500ml kristaloida, stanje pacijenta se tokom transporta subjektivno poboljšalo, na prijemu se popravila i tenzija: 110/70mmHg. Upravo ovaj trenutak u procesu zbrinjavanju pacijenta od HMP do bolnice, može kliničkog lekara odvući od radne dijagnoze, koju je napisao lekar hitne pomoći, što se dogodilo i u ovom slučaju. Pacijentkinja je dijagnostički obrađena u pravcu infarkta miokarda, zbog bola u grudima i ishemijskih promena na EKG zapisu a da su pritom zanemareni ostali aspekti stanja pacijentkinje.

Zaključak: Saradnja lekara na prehospitalnog i hospitalnog nivoa je od suštinskog značaja za pravovremeno postavljanje konačne dijagnoze i tretmana urgentnih stanja, što naročito važi za oboljenja sa visokom stopom mortaliteta, među koje spada i disekantna aorta.

Ključne riječi: Nedovoljna komunikacija, disekantna aneurizma, HMP

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RIZIK OD KONVERZIJE TOKOM URGENTNE LAPAROSKOPSKE HOLECISTEKTOMIJE

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KLINIKA ZA URGENTNU HIRURGIJU, URGENTNI CENTAR KC SRBIJA; MEDICINSKI FAKULTET UNIVERZITETA U BEOGRADU, SRBIJA

Uvod: Akutni holecistitis se definiše kao upala žučne kese i obično se javlja zbog opstrukcije duktusa cystikusa kamenom ili muljem. Laparoskopska holecistektomija je standardni tretman za akutni holecistitis. Bolesti žučne kese je među vodećim uzrocima za hospitalizaciju zbog akutnog abdomena odraslih i najčešća indikacija za abdominalnu hirurgiju kod starijih osoba. Rizik konverzije u otvoreni postupak je veći kod laparoskopske holecistektomije akutnih holecistitisa nego kod elektivne procedure.

Materijal i Metode: Ova studija se zasniva na podacima o 167 pacijenata sa akutnim holecistitisom koji su hospitalizovani na Kliniku za hirurgiju Urgentnog centra, Klinički centar Srbije, tokom perioda 6-meseci (od januara do juna 2016).

Rezultati: Laparoskopskom cholecistectomijom je operisano 167 pacijenata od kojih je 27 (16,2%) prevedeno u otvoreni operativni zahvat. U našoj studiji multivarijacionom logističkom regresijom nađeno je da su glavni faktori rizika za prevođenje u otvoreni operativni zahvat: C-reaktivni protein (CRP) preko 200 mg/l, starost preko 65 godina, dijabetes, gangrena žučne kese. Komplikacije je doživelo 6 (3,6%) bolesnika.

Diskusija: Akutna kalkulozna holecista sa visokom CRP, gangrena ili apsces povećavaju rizik za konverziju. Rano lečenje akutnog kalkuloznog holecistitisa može da smanji rizik od povrede žučnih kanala i potrebe za prevođenjem u otvorenu intervenciju.

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Ključne reči: akutni Holecistitis, laparoskopska holecistektomija, konverzija, otvorena holecistectomija.

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PROLAZNA INSULINSKA REZISTENCIJA TOKOM LAPARASKOPSKE VS OTVORENE HOLECISTEKTOMIJE

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1. KLINIKA ZA URGENTNU HIRURGIJU, URGENTNI CENTAR KLINIČKOG CENTRA SRBIJE, MEDICINSKI FAKULTET, UNIVERZITET U BEOGRADU, SRBIJA, 2. KLINIKA ZA ENDOKRINOLOGIJU, DIJABETES I BOLESTI METABOLIZMA, KC SRBIJE, MEDICINSKI FAKULTET, UNIVERZITET U BEOGRADU, SRBIJA

Uvod: Insulinska rezistencija se razvija posle operacije, kao deo odgovora na stres na operativni zahvat. Cilj našeg istraživanja bio je da se ispita da li hirurški stres izaziva promene u senzitivnosti na insulin u toku urgentne holecistektomije koja se sprovodi kroz dve različite procedure: otvoreno holecitektomija i kao laparaskopska procedura.
Materijal i Metode: Model Procene Homeostaze (MPH) je korišćen za određivanje senzitivnosti na insulin pre i u prvom, trećem i sedmom danu nakon operacije. Pacijenti su podeljeni u dve grupe: grupa A (otvorena holecistektomija; n = 30; prosečna starost 38,0 ± 3,3; prosečan BMI 26,8938 ± 1.5679kg/m2) i Grupa B (laparoskopska holecistektomija; n=60; prosečna starost 39.6 ± 4.1 prosečan BMI 26.5867 ± 1.8531kg/m2).
Rezultati: Nije bilo razlike u MPH IR indeksu između grupa A i B pre operacije (prosečna vrednost 2.4010 ± 0.3230 vs 1,9798 ± 0.6985; p> 0,05), kao i prvog postoperativnog dana (2.5448 ± 0.6044 vs 1,8370 ± 0.5714; p> 0,05), sedmog dana (0.6494 ± 0.4349 vs 0,7232 ± 0,3898; p> 0,05). Grupa B imala je viši MPH indeks IR trećeg dana (7,5619 ± 2,3360 vs 2.8016 ± 0,7670; p <0,05).
Diskusija: Našli smo prolazno povećanja indeksa MPH posle operacije u oba procedure, u skladu sa pogoršanjem osetljivosti na insulin, zbog odgovora na stres koji je normalizovan nedelju dana posle operacije. Upotreba MPH-IR mogu biti korisni za brzu i jednostavno određivanje promena osetljivosti na insulin u perioperativnom periodu hirurgije abdomena.
Ključne reči: Laparoskopska holecistektomija, otvoreni holecistektomija, insulinska rezistencija, HOMA-IC

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"OVERCROWDING" NA LIČNOM PRIMERU

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SLUŽBA URGENTNOG PRIJEMA, ZC ZAJEČAR, SRBIJA

Uvod: Prenatrpanost (overcrowding) prijemno urgentnih jedinica nije samo problem u Srbiji već se radi o globalnom problemu. Edukacija zdravstvenih radnika, pristupačnost primarne zdravstvene zaštite, informisanje pacijenata o načinu rada urgentno prijemnih trijažnih blokova može smanjiti prenatrpanost (overcrowding) i olakšati rad osoblja, a samim tim smanjuje se i verovatnoća lekarske greške kod pacijenata od I do III nivoa hitnosti.
Metoda: retrospektivna i uporedna analiza podataka Službe trijaže i urgentog prijema ZC Zaječar
Analiza rada Službe za urgentni prijem i trijažu ZC Zaječar, u odnosu na svetske standarde.

Rezultati: U periodu od 01.09.2016. do 31.03.2017. u Službu za urgentni prijem ZC Zaječar javio se 9671 pacijent. Prema nivoima hitnosti od njih 9671
1. nivo hitnosti (hitni tretman spasavanja života-crveni nivo) je bilo 24 (0,25%)
2. nivo hitnosti (jako hitna stanja-narandžasti nivo) je bilo 660 (6,82%)
3. nivo hitnosti (hitna stanja-žuti nivo) je bilo 3203 (33,12%)
4. nivo hitnosti (manje hitna stanja-zeleni nivo) je bilo 3937 (40,70%)
5. nivo hitnosti (ne hitna stanja-plavi nivo hitnosti) je bilo 1786 (18,46%)
ostalo je bilo 61 pacijent (0,63%) - odustali od pregleda.
Od toga je 12,05% pacijenata bilo doveženo od strane Službe hitne medicinske pomoći dok je ostatak od 87,95% pacijenata dolazilo bez uputa.
Diskusija: U periodu od 7 meseci u Službu se javio 9671 pacijent. Našu trijažna skala se sastoji od pet nivoa hitnosti:
01. PRVI NIVO HITNOSTI (CRVENI) - HITAN TRETMAN SPAŠAVANJA ŽIVOTA (besvesna stanja, šok , respiratorni i srčani zastoji, opekotine velike površine, epileptični i asmatični statusi, amputacija ekstremiteta)
02. NIVO HITNOSTI (NARANDŽASTI) - JAKO HITNA STANJA (pacijenti u pratnji SHMP, bolovi u grudima, moždani udar, intrakranijalna krvavljenja, akutne psihoze, trovanja, povrede velikih krvnih sudova, povraćanje krvi, naglo nastala gušenja, hipoglikemije, bolovi u trbuhu sa poremećajem vitalnih parametara, strana tela u respiratornom i digestivnom traktu, obilna vaginalna krvavljenja, povrede glave, seksualna zlostavljanja, septična stanja, teži poremećaji srčanog ritma, nasilje u porodici)
03. NIVO HITNOSTI (ŽUTI) - HITNA STANJA (bolovi u trbuhu, glavobolje, vrtoglavice, hipertenzivne krize, stabilne angine, epilepsije, alergija, produžena povraćanja sa dehidratacijom, povišene temperature preko 40 C, povrede grudnog koša i abdomena, stanja posle gubitka svesti, prelomi ekstremiteta, strana tela u oku, tranzitorni ishemički napadi)
04. NIVO HITNOSTI (ZELENI) - MANJE HITNA STANJA (povišene temperature, povišeni pritisak, produženi kašalj, dijareje, opstipacije i retencije poznate etiologije, ujedi psa, depresije, migrene, bolovi u uhu,posekotine, distorzije zglobova, flebotromboze)
05. NIVO HITNOSTI (PLAVI) - NE HITNA STANJA (prehlade, bolovi u leđima i zglobovima, bolni menstrualni ciklusi, česti bolovi u želudcu, psihijatrijski problemi, ujedi insekata bez znakova alergije, zubobolje).
U odnosu na naše dobijene rezultate nema bitnijih odstupanja od podataka u drugim savremenijim društvima. I kod njih je zaključeno da izmedju 13-18% pacijenata 05. NIVOA HITNOSTI mogu biti zbrinuti prehospitalno u okviru primarne zdravstvene zaštite.
Zaključak: Kako bi smo izbegli mogućnost lekarske greške kod ovih pacijenata odlučili smo da uradimo prijemno trijažnu skalu u vidu informativnog postera za pacijente kao i edukaciju zaposlenih u Službi urgentnog prijema ZC Zajecar radi bolje trijaže.
Ključne reči: Overcrowding, trijaža, redovi hitnosti, urgentni centar

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SPAŠAVANJE POLITRAUMATIZOVANOG PACIJENTA IZ EKSTREMNO TEŠKIH PRIRODNIH USLOVA

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SLUŽBA HITNE MEDICINSKE POMOĆI, DZ VLASOTINCE, SRBIJA

Uvod: Politrauma podrazumeva povrede koje obuhvataju najmanje dva različita organa ili sistema organa. Politrauma je na visokom trećem mestu kao uzrok smrti, a u populaciji 1 do 44 godina na prvom mestu. U zbrinjavanju unesrećenog od izuzetne važnosti je inicijalni tretman. U skladu sa tim treba postovati određene protokole i redosled radnji. Najpre proveriti vitalne znake disanje, stanje svesti, puls, da li ima vidljivo krvarenje i znake šoka. Obezbediti vazdušni i

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venski put, zaustaviti krvarenje, imobilizacija i smanjivanje intrakranijalnog pritiska i sve vreme borba protiv šoka, nadoknada cirkulatornog volumena, analgetici, utopljavanje, oksigenoterapija.
Veoma značajan nalaz predstavlja bradikardija (usporen rad srca), koja može iznositi 40 - 50 otkucaja u minutu i može da posluži kao indirektni pokazatelj veličine intrakranijalnog pritiska.
Materijal i metode: materijal uzet iz protokola SHMP Vlasotince br.13875 od 03.09.2016.godine.
Prikaz slučaja: Poziv primljen u 19 sati i 40 minuta da je muškarac C.M. star 38 godina doživeo saobraćajni udes tj.prevrtanje traktorom na šumskom putu i da je u kritičnom stanju. Ekipa kreće u prvom minutu ka ataru sela Kruševica reanimobilom makadamskim putem tačno 17 km do šumskog puta kojim nismo mogli dalje bez terenskog vozila. Imali smo sreće da je rođak povređene osobe bio tu sa terenskim vozilom i ekipa odlazi jos 3km u dubinu šume blatnjavim teško prohodnom šumskim putem. Zadnjih 300m morali smo pešice noseći svu opremu i spinalnu dasku. Do povređenog pacijenta smo stigli u 20sati i 40 minuta kada je uveliko pao mrak. Na šumskoj stazi zatičemo povređenog u veoma teškom stanju. Odmah je izvršen primarni trauma pregled po principu ABC, zatim urađen brzi trauma pregled od glave do pete. Krvni pritisak je nemerljiv, radijalni puls se ne pipa, karotidni ubrzan, slabo punjen frekvenca 110 u minuti, srčana radnja ritmična i ubrzana, frekvenca disanja 12 u minuti, disajni šum normalan, koža i vidljive sluzokože blede, usne cijanotične, saturacija kiseonika 92. GKS je 13 razgovara ali je dezorijentisan. Na čelu i poglavini sa leve strane oguljotina sa svežom i sasušenom krvlju. Postoji bolna osetljivost leve nadlaktice, leve strane grudnog koša, levog zgloba kuka i leve natkolenice. Naš terapijski tretman: pacijentu odmah ostavljena Šancova kragna, sanirana povreda na glavi, postavljena vakumska udlaga na natkolenici, stavljen na spinalnu dasku i otvorene dve venske linije i aplikovano 500ml ringerovog rastvora jer je naša procena bila da je u moderiranom Šoku /gubitak 20% do 40% cirkulatornog volumena/. Pacijent transportovan do reanimobila. Uključen je kiseonik 12l u minuti, dat analgetik i dexason 8mg. U toku transporta uz kontrolu vitalnih funkcija dato je jos 1000ml Ringerovog rastvora. Posle dijagnostike u urgentnom centru Leskovac pacijent je transportovan u KC Niš. Kasnijim pregledom medicinske dokumentacije ustanovili smo da je pomenuti pacijent imao kontuziju glave, grudnog koša, prelom karlice i rupturu mokraćne bešike.
Zaključak: brzi dolazak na mesto nesreće, rani pristup teško traumatizovanom pacijentu, hitno zbrinjavanje po protokolima za tešku traumu i brz transport do najbliže zdravstvene ustanove povećavaju verovatnoću preživljavanja.
Ključne reči: politrauma, protokol, transport

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AKUTNO NASTALA SRČANA SLABOST KOD SPORTISTE-PRIKAZ SLUČAJA

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DZ EUROMEDIK, BEOGRAD, SRBIJA

Uvod: Slabost miokarda je često uzrokovana miokarditisom, ali i drugim patološkim stanjima, što kod mlađih osoba može dati izraženiju kliničku sliku.
Materijal i metode: Metodom prikaza slučaja, predstavljen je pacijent muškog pola, aktivni profesionalni sportista, koji je dospeo u stanje teške srčane slabosti, praćene poremećajem srčanog ritma i teškom valvularnom insuficijencijom.
Prikaz slučaja: Pacijent star 24 godine je došao kod lekara zbog osećaja veoma jakog zamaranja-tako da mora da sedne i da se odmori nakon najmanjeg napora, izražene malaksalosti, bola sa prednje leve strane grudnog koša (koji se širio u levo rame), pojačanog znojenja. Ove tegobe je imao u poslednja dva meseca, ali su postepeno dobijale na intenzitetu. Tokom ECG snimanja zabeležene su multiformne komorske ekstrasistole, QS sa ST elevacijom u

odvodima V1-V2 i ST depresijom u V5-V6, D1-D3 и AVF. Auskultatorno se čuo jak šum nad celim prekordijumom, dok na UZ se beležila veoma uvećana leva komora od 8,3 cm u dijastoli, sa globalnom hipokinezijom i smanjenom ejekcionom frakcijom od 20%. Zabeležena je i značajna mitralna i aortna insuficijencija, uz proširenu desnu komoru. Pacijent je odmah poslat u regionalnu kardiološku kliniku gde je hospitalizovan, a koronarografski nalaz je bio uredan. Kasnija ispitivanja su ukazala visok stepen sumnje na miokarditis, kao verovatni uzrok dilatacije i insuficijencije srca.
Tome u prilog ide činjenica da se radilo o profesionlnom sportisti, koji je redovno lekarski pregledavan i da su raniji medicinski nalazi bili uredni. Na lični zahtev je napustio bolnicu i nakon par nedelja kućnog lečenja i mirovanja je došao na pregled u drugu kardiološku ustanovu, gde je odlučeno da se pokuša sa kardiohirurškom intervencijom, ali je nažalost preminuo u svojoj kući. Nije rađena obdukcija.
Zaključak: Verovatno je akutni miokarditis bio primarni uzrok dilatacije srca i srčane slabosti praćene valvularnom insuficijencijom, što je za posledicu imalo smrtni ishod.
Ključne reči: srčana slabost, miokarditis, aritmija

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LEČENJE OTVORENOG VIŠEDELNOG PRELOMA FEMURA SPOLJAŠNIM FIKSATOROM

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OPŠTA BOLNICA VRŠAC, SRBIJA

Uvod: Spoljašnji fiksator u lečenju preloma femura se ređe koristi u poređenju sa potkolenicom. Međutim, kod otvorenih preloma femura sa velikom lezijom mekih tkiva a naročito kod prostrela ili ustrela, što je ovde slučaj, to je metoda izbora.
Prikaz slučaja: Prikazujemo mladog čoveka starog 22 god., snažne konstitucije, koji je zadobio prostrelnu povredu u predelu srednje trećine desne natkolenice. Povreda zadobijena zadesno u lovu karabinskim metkom.
Iz lovišta privatnim kolima dovežen do DZ Bela Crkva sa improvizovanom Esmarhovom poveskom. Kolima saniteta, sa transportnom imobilizacijom, tamponiranom ranom kompresivnim zavojem kao i i.v. braunilom uz nadoknadu tečnosti, dovoze ga u OB Vršac. Od povređivanja do dolaska u bolnicu prošlo je oko 90 min i pređeno je oko 55 km.Po prijemu u OB Vršac pacijent je obrađen klinički, laboratorijski i urađen je RTG. Postavljena je dijagnoza sklopetarne rane sa defektom mekih tkiva u desnoj natkolenici kao i višedelni prelom desnog femura.Uz intenzivne reanimacione mere (nadoknada tečnosti, analgetici) u uslovima OET anestezije urađena je primarna hirurška obrada rane uz obilno ispiranje iste, hemostaza velikih krvnih sudova koji nisu nisu bili ledirani a prelom je stabilizovan sa spoljašnjim fiksatorom za femur po Mitkoviću. Tri klina su postavljena iznad zone preloma a tri ispod. Klinovi su postavljeni u sagitalnoj i frontalnoj ravni. Ugao između klinova je bio 60 stepeni. Rana nije suturirana. Uvedena je trojna antibiotska terapija.
Rezultati: U post operativnom toku rana je redovno previjana, zarasta per secundam intentionem. Nakon pojave granulacija 24 og dana se uradi sekundarni šav. Nedelju dana nakon povređivanja pacijent se osposobljava za hod sa štakama. Prelom zarasta i nakon 7 meseci se fiksator skida.
Zaključak: Po završetku fizikalne terapije konstatuje se ograničenje pokreta u zglobu kolena F 100,E -5. Dužina femura i osovina je očuvana. Hod je neupadljiv. Pojave osteomielita nema.
Ključne reči: spoljašnji fiksator, femur, otvoreni prelom.

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TROVANJE KISEONIKOM KAO NEŽELJENO DEJSTVO OKSIGENOTERAPIJE

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Uvod: Trovanje kiseonikom je štetno dejstvo kiseonika, koje može nastati u ćelijama i tkivima živih bića. Toksično dejstvo kiseonika prvi je opisao 1899. godine fiziolog Smit (Smith). On je zaključio da udisanje kiseonika deluje nadražajno na pluća i izaziva inflamaciju i kongestiju.
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: „toksično dejstvo kiseonika, oštećenje organa i sistema organa, prevencija kiseoničnog oštećenja. Pretraživanje je vršeno kroz: PubMed, Medline i elektronske časopise dostupne preko KoBSON-a kao i litratura raspoloživa u Biblioteci Medicinskog fakulteta u Nišu.
Rezultati sinteze: Kiseonik je neophodan za funkcionisanje ćelija i održavanje života, ali je sa druge strane i univerzalni otrov koji inhibira enzime značajne za metabolizam. Za oštećenje ćelija nisu odgovorni molekuli kiseonika, već brojni kiseonični radikali ili peroksidi, koji nastaju u toku ubrzanih metaboličkih promena u periodu hiperoksije. Iako je terapija kiseonikom korisna u mnogim stanjima, njegova nekontrolisana upotreba može dovesti do trovanja. Zato je za bezbednu primenu kiseonika potrebno odgovarajuće znanje o mogućim štetnim uticajima, njegova jasno definisana (pravilno dozirana) upotreba i stalni monitoring (praćenje) vitalnih parametara pacijenata, u cilju pravovremenog prepoznavanja početnih manifestacija trovanja. Promene koje nastaju u organizmu kao posledica toksičnog dejstva kiseonika mogu se podeliti u 3 grupe:

1. Toksično dejstvo na centralni nervni sistem (Bertov efekat) manifestuje se: zujanjem u ušima, fascikulacijama mišića lica, vrata i šaka, ali i grčevima dijafragme i otežanim, nepravilnim disanjem. Nastavak izlaganje hiperoksiji može dovesti i do mučnine i vrtoglavice, promene ponašanja, nekoordinisanih pokreta a u krajnjem slučaju i do pojave konvulzija i gubitka svesti; takođe može se javiti i neurogeni plućni edem.
2. Toksično dejstvo na pluća i disajnu funkciju (Smitov efekat) manifestuje se: iritacijom sluzokože gornjih disajnih puteva, intenzivnim nadražajnim kašljem, dispnejom i bolom u grudima, a u najtežim slučajevima i nastankom kliničke slike ARDS-a (kao posledica oštećenja epitela, kapilarne kongestije i eksudacije u alveole)
3. Toksičnog dejstva u očima–može nastati kod novorođenčadi koja udišu 100% kiseonik u inkubatoru u vidu retrolentalne fibroplazije i slepila (kao posledica hiperoksične vazokonstrikcije krvnih sudova mrežnjače).

Trovanje kiseonikom se može ispoljiti u dva oblika, kao: akutno (dominiraju promene na centralnom nervnom sistemu) i hronično (dominiraju promene na plućima). Pri udisanju čistog kiseonika (FiO_2=1,0), štetni efekti nastaju posle 6-12h; pri FiO_2=0,8, oštećenje se događa posle 24h, a pri FiO_2=0,6 posle 36h. Kraća upotreba (24-48h) nižih koncentracija kiseonika ($FiO_2 \leq 0,5$) je izuzetno retko praćena simptomima i znacima trovanja kiseonikom.
Zaključak: Uvek treba poštovati pravilo da se kiseonik koristi u najmanjoj mogućoj koncentraciji i najkraćem mogućem vremenu potrebnom da se postigne željeni efekat.
Međutim, bez obzira na neželjene efekte, ni jednom bolesniku se u toku reanimacije ne sme uskratiti davanje kiseonika.
Ključne reči: toksično dejstvo kiseonika, oštećenje organa i sistema organa, prevencija kiseoničnog oštećenja

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Broj apstrakta: 024

ZNAČAJ PREĆENJA VREDNOSTI LABORATORIJSKIH ANALIZA KRVI U RANOJ FAZI LEČENJA BOLESNIKA SA GUILLIAN-BARRE SINDROMOM U HOSPITALNIM USLOVIMA

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Uvod: Guillain-Barre sindrom (GBS) je akutna imunološki-posredovana motorna-(senzitivna)-(vegetativna) neuropatija, najčešće predominantno demijelinizirajućeg tipa i u oko 70% bolesnika pojavi bolesti (od jedne do više nedelja) prethodi „kritični dogadjaj"(najčešće infekcija, moguća vakcinacija, hirurška intervencija itd.).
Metod rada: U radu se prikazuju rezultati laboratorijskih analiza seruma 57 bolesnika (37 muškog pola), prosečne starosti 50 godina, sa Guillain-Barre sindromom nakon prijema na bolničko lečenje, pre sprovođenja dijagnostičkih procedura i terapijskog tretmana. Analizirane su vrednosti sledećih laboratorijskih analiza: sedimentacije(SE), broj leukocita(Le), C-reaktivnog proteina(CRP) i elektrolitni status, vrednost natrijuma(Na), kalijuma(K) i kalcijuma (Ca) u serumu. Iz istraživanja su isključeni pacijenti koji su već bolovali od dijabetesa, alkoholizma, maligniteta ili bilo koje druge bolesti koja može usloviti nastanak neuropatije. Za statističku obradu podataka korišćeni su Student-ov t test i Pearson-ova korelaciona analiza
Rezultati: Povećane vrednosti SE registrovane su kod 31.6% (18), broja Le kod 26.3% (15), a CRP kod 22.8% (13) ispitanika sa GBS. Znaci hiponatremije su registrovani u 14% (8), hipokalcemije u 12.3% (7), a hipokalemije u 5.3% (3) analiziranih bolesnika sa GBS. Nije registrovana značajna međusobna korelacija ($p>0.05$), između vrednosti SE, Le i CRP. Takođe, nije registrovana značajna korelacija ($p>0.05$) između vrednosti SE i vrednosti Na, K i Ca u serumu. Korelacija između vrednosti CRP i vrednosti Na i K u serumu nije značajna ($p>0.05$), dok je registrovana statistički značajna nergativna korelacija izmešu vrednosti CRP i vrednosti Ca u serumu ($p<0.05$). Registrovana je statistički značajna negativna korelacija između vrednosti broja Le i vrednosti Na ($p<0.001$) i Ca ($p<0.01$) u serumu, dok korelacija između vrednosti broja Le i vrednosti K u serumu nije značajna ($p>0.05$)
Diskusija: U ranoj fazi hospitalnog lečenja bolesnika sa GBS (pre sprovođenja dijagnostičkih procedura i terapijskog tretmana) veoma je značajno praćenje (monitoring) vrednosti laboratorijskih analiza krvi, a posebno elektrolitnog statusa, s obzirom da su u ovom istraživanju znaci hiponatremije registrovani u 14%, hipokalcemije u 12,3%, a hipokalemije u 5,3% analiziranih bolesnika sa GBS neposredno nakon prijema u bolnicu. Neblagovremena i neadekvatna korekcija elektrolitnog statusa može dovesti do pogoršanja stanja bolesnika. Povećane vrednosti SE, broja LE i CRP u serumu kod dela bolesnika sa GBS su nespecifični nalaz, ali isti se može u većoj ili manjoj meri kod nekih bolesnika sa GBS dovoditi u vezu (direktnu i/ili indirektnu) sa prethodnom infekcijom. Prema rezultatima ovog istraživanja, povećanje broja Le može biti povezano sa sniženjem vrednosti Na i Ca u serumu bolesnika sa GBS, ali uzrok i precizan mehanizam navedenog odnosa za sada nije potpuno jasan.
Ključne riječi: Guillain-Barre sindrom; laboratorijske analize, lečenje.

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Broj apstrakta: 025

TROVANJE ZELENOM PUPAVKOM

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Uvod: Trovanje pečurkama je najčešće u proleće i jesen, u sezonama obilnih padavina i njihovog rezmnožavanja. Najveći broj trovanja pečurkama nije opasan po život a oporavak je dobar. Pojava simptoma od strane gastrointestinalnog trakta unutar tri sata od ingestije ukazuje da će

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ishod i bez terapije biti povoljan, za razliku od trovanja Amanitom phalloides, kada se simptomi javljaju posle 6 sati. Amanita phalloides (zelena pupavka ili zelena muhara) sadrži dva otrova: faloidin i amanitatoksin, koji je jedan od najjačih poznatih otrova. Srednja letalna doza amanitatoksina iznosi 0.1-0.3 mg/kg telesne mase, a jedna kapa ove pečurke može da ima i 10-15mg ovog otrova. Simptomi trovanja Amanitom phalloides, za razliku od trovanja drugim pečurkama, javljaju se unutar 6-24h od ingestije. Najpre deluje toksin faloidin, koji oštećuje gastrointestinalni trakt i dovodi do obilnog povraćanja i dijareje. Nekada se javlja i povišena telesna temperatura. Amanitatoksin se vezuje za albumine plazme i dovodi do oštećenja mnogih organa. Nakon 24-48h od ingestije izaziva insuficijenciju jetre, između 48-72h insuficijenciju bubrega, a posle trećeg dana od ingestije i insuficijenciju miokarda. Sa terapijom treba početi odmah, davanjem aktivnog uglja ili gastričnom lavažom i primenom antidota (Penicilin G i eventualno silibinin), koji sprečavaju vezivanje amanitatoksina za albumine plazme. Pored toga primenjuju se i plazmafereza koja ima za cilj uklanjanje otrova vezanog za albumine plazme.
Prikaz slučaja: Bolesnica je upućena iz Zdravstvenog Centra Aranđelovac zbog sumnje na trovanje pečurkama, koje je jela pre tri dana sa suprugom (sama brala pečurke). Dva dana nakon konzumiranja pečuraka javilo se uporno povraćanje, retke stolice i izrazita slabost. Postavljena sumnja na hepatotoksični sindrom usled trovanja zelenom pupavkom i bolesnica primljena u Urgentni centar KC Kragujevac, odakle je prevedena na kliniku za gastroenterologiju KC Kragujevac.
Bolesnica je obrađena dijagnostički, gde je potvrđen hepatotoksični sindrom bez oštećenja bubrega, usled trovanja zelenom pupavkom. Ehosonografski viđena slobodna tečnost u trbušnoj duplji, a RTG dijagnostikom utvrđen pleuralni izliv desno. Verifikovan izrazit skok transaminaza i to na prijemu AST 526 IJ/I i ALT 2836 IJ/I. Bolesnica negirala prethodne bolesti. Na klinici bolesnica provela od 14.09. do 22.09. 2016. Tokom lečenja tretirana rastvorima kristaloida, Penicilinom G, Sylimarinom, Hepamertz ampulama, Spirinolaktonom. Nakon sedam dana došlo je do povlačenja hepatotoksičnog sindroma, što je dijagnostički potvrđeno (AST 53 IJ/I i ALT 810 IJ/I), otpuštena kući u dobrom opštem stanju, sa predlogom za obaveznim redovnim kontrolama kod nadležnog toksikologa.
Zaključak: Branje i sakupljanje pečuraka treba prepustiti iskusnima i na taj način izbeći rizik od eventualnog trovanja. Nakon ingestije pečurki, sa pojavom bilo kojeg znaka trovanja neophodno je obratiti se Službi za hitnu medicinsku pomoć kako jedno takvo ozbiljno stanje bilo na vreme dijagnostikovano.
Ključne reči: Amanita phalloides, hepatitis, trovanje

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ZNAČAJ OPSERVACIJE U RANOJ FAZI LEČENJA PACIJENTA SA KRANIOTRAUMOM–PRIKAZ SLUČAJA

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SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA, ZC ZAJEČAR, SRBIJA

Uvod: Nejasna, nedovoljno definisana stanja prilično su česta u urgentnoj medicini, gde je lekar bilo hitne pomoći ili jedinice hospitalnog urgentnog prijema u situaciji da prvi vidi pacijenta i na osnovu dijagnostički dostupnih metoda donese za pacijenta veoma važnu odluku. Međutim, taj put (od simptoma do dijagnoze i terapije) nekad je vrlo problematičan i krivudav.
Materijal i metode: Prikazujemo slučaj pacijentkinje sa kraniotrumom, čija je klinička slika na prijemu i tokom opservacije dugo bila nespecifična.
Prikaz slučaja: U 17.33h u prijemnu ambulantu Službe za prijem i zbrinjavanje urgentnih stanja ZC Zaječar od strane SHMP Zaječar dovežena je I.S.(28). Razlog upućivanja je kolaps. Pacijentkinja bila u nesvesti nekoliko minuta (do dolaske ekipe HMP). Nije se tresla, nije se umokrila. Prilikom pada udarila je glavom. Heteroanamnestičke podatke daje drugarica koja je u

pretnji: zagušljiva prostorija, težak dan na poslu, gubitak apetita nekoliko dana unazad. Objektivnim pregledom može se utvrditi sledeće: pacijentkinja svesna, orijentisana, malaksala, bleda, žali se na glavobolju u frontalnom delu desno, gde se zapaža hematom. Povraća jednom u toku pregleda. Žali se na vrtoglavicu i malaksalost. Cor: srčana akcija ritmična, tonovi jasni, bez šumova. Pulmo: normalan disajni šum. Abdomen: u nivou grudnog koša, mekan, respiratorno pokretan, bezbolan na površnu i duboku palpaciju. Peristaltika čujna. TA= 150/90 mmhg, EKG:sinus, normogram SF 70/min, bez promena u ST-T segmentu. Ekstemiteti: bez otoka i deformiteta. Periferni pulsevi prisutni, simetrično palpabilni. Neurološki nalaz: Zenice jednake, kružne, normalno reaguju na svetlost. Nema nistagmusa. Romberg se ne može izvesti zbog malaksalosti pacijentkinje (inicijalno toleriše jedino ležeći položaj). Očuvana GMS, bez jasne lateralizacje, MTR se uredno izazivaju. Babinski negativan. Meningealni znaci negativni. (Vrat slobodan, nije rigidan, Kernig, Brudžinski negativni). Pacijentkinja postavljena na monitoring: EKG, TA, SpO_2, broj respiracija. Inicijalna terapija: sol. Manitol 20% iv, amp Novalgetol, Amp Klometol. Dijagnostika: Kraniogram (17.43h): uredan nalaz. Laboratorija (upućena 17.37h, rezultat 18.45): u granicama normale. Nakon terapije pacijentkinja se oseća bolje, glavobolja je manja, TA 120/70, može da ustane. Ponovni neurološki pregled – nepromenjen status. Pacijentkinja u pratnji majke i sestre odlazi u toalet gde pri pokušaju defekacije ponovo gubi svest. Hitno vraćena na monitoring. Konsultovan neurolog (zahtev 19.57h, realizacija 20.33h): somnolentna ali orijentisana. Manje pozitivan Romberg. CT endokranijuma (20.56h): prisutni znaci masivne subarahnoidalne hemoragije sa prodorom krvi u IV komoru. Nema sigurnih znakova koštanog traumatizma. Pacijentkinja hitno transportovana na NHK Niš, gde je operisana i uspešno oporavljena. Razlog krvarenja nije bila kraniotrauma već ruptura aneurizme.

Diskusija: Nekoliko činjenica je, moramo priznati, ipak ometalo tok razmišljanja lekara. Pre svega heteroanamnestički podaci su bacili potpuno pogrešnu sliku na celu situaciju. Anamnestički podaci su se podudarali sa podacima koji je dala drugarica, te je pažnja bila dodatno skrenuta. Oporavak pacijentkinje (prestanak glavobolje i vrtoglavice) je bio još jedan korak koji je maskirao pravo stanje. Normalni podaci sa monitora, normalan laboratorijski nalaz i uredan kraniogram, nespecifičan nalaz pri pregledu neurologa su nastavili niz, tako da je nalaz sa CT endokranijuma bio iznenađenje za sve. Pa ipak, zahvaljujući pre svega ekspektativnom stavu prilikom opservacije i činjenici da je pacijentkinja prilikom defekacije izgubila svest (gde je i sumnja na neki ozbiljniji događaj ipak preovladala), pacijentkinja je upućena na CT i dijagnoza je uspešno postavljena.

Zaključak: Naglašavamo važnost opservacije ne samo za traumu, već za svakog pacijenta nedovoljno jasnog stanja i/ili bez kompletno završene dijagnostike bilo u službi hitne pomoći bilo u jedinicama hospitalnog urgentnog prijema. Treba se čuvati brze i lake dijagnoze, i to prevashodno na prehospitalnom i ranom hospitalnom nivou, kad klinička slika još ne mora u potpunosti biti razvijena.

Ključne reči: opservacija, kraniotrauma

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WOLF - PARKINSON - WHITE SINDROM KOD TRUDNICE

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SHMP, DZ NOVI PAZAR, SRBIJA

Uvod: U normalnom srcu pretkomorski impulsi mogu biti sprovedeni do komora samo preko AV čvora. Preekscitacija (aktivacija koja je ranija od normalne) postoji kada impuls iz pretkomora zaobilazi normalno atrioventrikularno zadržavanje i brzo se sprovodi do komora. U preekscitacionim sindromima postoje akcesorni sprovodni putevi koji povezuju pretkomore i infranodalna vlakna sprovodnog sistema u kojima nema zadržavanja impulsa kao u AV čvoru ili povezuje pretkomore i komore. Zato se pretkomorski impulsi mnogo brže sprovode

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akscesornim putevima i aktivacija komora započinje ranije nego što se impuls koji ide kroz AV čvor sprovede u komore. U bolesnika s WPW sindromom česti su napadi paroksizmalne supraventrikularne tahikardije (PSVT) koje su uglavnom uslovljene kružnim kretanjem impulsa brze frekvencije, koji može najpre ići kroz AV čvor a potom kroz akscesorni put ili obrnuto. WPW sindrom elektrokardiogramski (EKG) se karakteriše kratkim PR intervalom, proširenjem QRS kompleksa usled prisustva delta talasa na ushodnom delu R zupca. U bolesnika sa atrijalnom fibrilacijom mogu naći iregularni normalni retki ventrikularni kompleksi i mnogo češći ventrikularni kompleksi sa delta talasima.
Prikaz slučaja: U Urgentni centar, aprila ove godine dolazi bolesnica starosti 30 godina navodeći da joj lupa srce i da je u drugom stanju - sedmi mesec trudnoće. Takođe govori da je ovakvo lupanje srca imala i u oktobru prošle godina i da se leči od WPW sindroma, a da je pre tri godine u Nemačkoj radila krio ablaciju. U prethodnoj je trudnoći takođe imala napade lupanja srca. EKG-om ustanovljen WPW sindrom, srčana frekvenca 212/min. Bolesnica pije tbl Metoprolol XL 47mg, 1+0+0. Bolesnica upućena na Kliniku za kardiologiju, gde je tretirana ampulom Adenozina 6 mg, intravenski, nakon čega je došlo do usporenja srčanog rada, što je verifikovano EKG zapisom, a srčana frekvenca je iznosila 73/min. Na klinici bolesnica obrađena biohemijski i ehosonografski i nije ustanovljena evolutivnost nalaza u odnosu na prethodni.
Zaključak: Veoma je bitno prepoznati WPW sindrom kod pacijenata, jer PSVT može ličiti na WPW sindrom, a terapijski se drugačije tretiraju i greške koje iz neprepoznavanja mogu proisteći znaju biti fatalne.
Ključne reči: WPW, aritmija, adenozin

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RETKI SLUČAJ HIPERTROFIJE ZIDA ŽUČNE KESE I JOŠ REĐI SIMPTOMI OVE BOLESTI

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1. KLINIKA ZA ANESTEZIJU I REANIMACIJU, KLINIČKI CENTAR NIŠ, SRBIJA, 2. ZAVOD ZA HTNUMEDICINSKU POMOĆ NIŠ, SRBIJA

Uvod: Uvećanje zida žučne kese se tokom operacija žučne kese sreće i to po nekim autorima u oko 9% svih holecistektomija, uglavnom kod osoba u petoj deceniji, češće kod žena. Osnova karakteristika je hipertrofija mišićnog sloja i proliferacija epitela u većoj ili manjoj meri. Postoje tri morfološka tipa i to: generalizovana, segmentalna ili lokalizovana. Etiologija bolesti je nepoznata, smatra se da je povezana sa hroničnom upalom žučne kese ali ne i sa kalkulozom. Jedan od mehanizama za nastanak bi mogao biti spazam u izlaznom delu žučne kese. Jake kontrakcije žučne kese koja pokušava da savlada ovaj spazam vremenom mogu da dovedu do hipertrofije mukoze i mišićnog sloja. U pojedinim radovima se navodi da i kongenitalni faktori (dug, uzak i izuvijan duktus cistikus) mogu biti uzrok.
Prikaz slučaja: Mlada žena stara 42 god sa tegobama učestalog mokrenja koji traju duže vreme i zbog kojih se sad prvi put javlja. Pacijentkinja je visoka 155cm, teška 42 kg, BMI 17,5. Fizički pregled pacijentkinje, vitalni parametri i laboratorija (urin, klasična krvna slika i biohemija) su u granicama normale. Zbog ovih tegoba upućena na EHO andomena. EHO abdomena: jetra uredne veličine, bez vidljivih patoloških promena u parenhimu, žučna kesa veličine oko 18 cm svojim fundusom s oslanja na fundus mokraćne besike, u pratećim žučnim odvodima nema sadržaja. Zidovi žučne kese zadebljali, bez raslojavanja. Nalaz na ostalim abdominalnim organima uredan. Pacijentkinja je pripremljena i operisana klasičnom elektivnom holecistektomijom. Postoperativni tok uredan. Kontrola za mesec dana je pokazala da pacijentkinja nema više tegoba.
Zaključak: Iako je pacijentkinja imala simptome koji su ukazivali na bolesti urinarnog trakta, pažljivim ultrazvukom abdomena, nađen je netipičan uzrok njenim tegobama. Činjenica da

pacijentkinja niske građe i veoma mršava objašnjavaju i poziciju žučne kese i njeno naslanjanje na fundus mokraćne bešike.
Ključne reči: hipertrofija zida žučne kese

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Broj apstrakta: 029
HAND-FOOT-AND-MOUTH DISEASE-HFMD
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ZAVOD ZA HITNU MEDICISKU POMOĆ NIŠ, SRBIJA

Uvod: Hand-Foot-and-Mouth Disease (bolest šaka, stopala i usta) je zarazna virusna infekcija česta kod dece predškolskog i školskog uzrasta (najčešće izmedju 5 i 10 god) koju izaziva non polio enterovirus najčešće coxsackie A16 i A10 i humani enterovirus (EV71). Može se javiti i kod starije dece i adolescenata. Najčešći je oralni put prenošenja infekcije. Epidemija EV71 prvi put je opisana 1970 u različitim državama u Americi, Evropi, Australiji i Aziji. Velika epidemija se javila 1998 u Tajvanu, sa 405 hospitalizovane dece, zbog teških neuroloških komplikacija i 78 umrlih. U Kini je 2008-e zabeleženo 490 000 inficiranih i 126 umrle dece. U našem okruženju (Bugarska) 1975-e, bila je velika epidemija sa 140 slučajeva sa paralizom kao komplikacijom od kojih je 27 deteta umrlo.
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: „Hand-Foot-and-Mouth Disease. Pretraživanje je vršeno kroz: PubMed, Medline i elektronske časopise dostupne preko KoBSON-a kao i litratura raspoloživa u Biblioteci Medicinskog fakulteta u Nišu.
Rezultati sinteze: Bolest pored virusa Coxsackie A16 mogu da izazovu i drugi tipovi enterovirusa koji se prenose najčešće respiratornim putem ali i preko stolice i sadržaja vezikula. Perod inkubacije traje tri do šest dana. Nakon što enterovirusi uđu u creva i probiju barijeru crevne sluzokože, oni su u stanju da stignu do kičmene moždine, mozga, moždane ovojnice, srca, jetre, kože, noktiju i do ostalih organa uzrokujući relevantne kliničke simptome. Većina pacijenata ima groznicu, promene na koži dlanova, tabanima ili zadnjici. Međutim, neki pacijenti brzo razviju neurološke i sistematske komplikacije, kao što su akutna flakcidne paralize, encefalitis, pogađajući medulu uzrokuju kardiopulmonarnu disfunkciju, miokarditis i teške respiratorne infekcije koje mogu biti fatalne. Groznica i visoka temperetura su često prvi znak, zatim bol u grlu, loš apetit i malaksalost. Uobičajno 1-2 dana od početka bolesti javlja se osip na dlanovima i tabanima, ponekad i na zadnjici. Promene na dlanovima i tabanima su bez svraba, u vidu makulo papulozne ospe, ponekad dobijaju i oblik vezikule i to na jeziku, desnima i unutar obraza. Najčešća komplikacija ove bolesti je dehidratacija, koja nastaje kada zbog bola u grlu i ustima deca odbijaju da uzimaju tečnost. Pojedina istraživanja su pokazala da kod najtežih oblika bolesti postoji dominacija muškog pola i odsustvo promena na koži i sluzokoži. Preliminarni rezultati više studija pružaju dokaze da fentolamin smanjuje smrtnost i ublažava simptome teških komplikacija ove bolesti. Bolesnici ostaju zarazni i kada se simptomi povuku i to čak i par nedelja. Onychomadeza je kasna komplikacija koja se javlja četiri do šest nedelja posle bolesti i predstavlja spontano odvajanje nokatne ploče od nokatnog ležišta. Rana primena Esmolola može efikasno da stabilizuje vitalne znake kod dece sa teškim srčanom insuficijencijom.
Zaključak: HFMD je zarazna virusna bolest, koja se lako prepoznaje tipičnim promenama na koži. U tretmanu dece sa ovim simptomima treba misliti na teške komplikacije pa i na moguć smrtni ishod.
Ključne reči: Hand-Foot-and-Mouth Disease

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KAD JE SVE TU-PRIKAZ SLUČAJA PACIJENTA SA PTE

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ZAVOD ZA HITNU MEDICINSKU POMOĆ NIŠ, SRBIJA

Uvod: Incidenca Plućne trombo embolije (PTE) u opštoj populaciji se kreće oko 1 na 1000 godišnje (nešto veći broj je kod starijih osoba). U knjizi: "Tintinalli Emergency Medicine A comprehensive Study guide" (najznačajnija knjiga iz oblasti ugrentne medicine) kaže se "Nedostatak vazduha je najčešći simptom koji se javlja u 90% pacijenata sa postavljenom dijagnozom PTE. **Stoga, prisustvo neobjašnjive dispneje je dovoljna da započnete dijagnostičku evaluaciju u tom pravcu".** Ova jasna i važna preporuka nam je bila vodilja u postavljanju dijagnoze, tj. sumnje na PTE.
Prikaz slučaja: Ekipa hitne medicinske pomoći prima poziv u 11:30, zbog pacijenta koji ima osećaj gušenja. Poziv primljen kao 3 red hitnosti. Po dolasku zatičemo pacijenta N.N. starosti 76 god.u krevetu u polusedećem položaju. Nešto bleđe prebojenosti kože, dispnoičan, tahipnoičan, uznemiren. Od rodbine dobijamo podatak da se pacijent guši od noćas, da se inače leči od povećanog pritiska, a zbog preloma kuka (koji nije operativno zbrinut) je u krevetu već 6 meseci. Vitalni parametri: TA110/70mmHg; SF 120/min; RF30/min; SpO2 80%; Šuk 7,9mmol/L. Temp, 36,9 C. Nalaz na srcu: aritmija po tipu absolute, blag sistolnodijastolni šum nad Erbom; Pulmo: obostrano prisutno vezikularno disanje, bazalno desno diskretni srednje krupni krkori, uz oslabljen disajni šum. Na ecg-u: AF, diskretni S1Q3T3, inkompletni blok desne grane, neg T od V1-V4, retke VES. Pri pregledu ekstremiteta: leva noga skraćena i u spoljašnjoj rotaciji, koža oba stopala pa do polovine potkolenica, sa trofičnim promenama i znacima starih ožiljaka od ulcusa crurisa. Pacijentu postavljena venska linija, monitoring, dat ASA 300mg, i transportovan na Kliniku za kardiologiju sa uputnom Dg: PTE in obs, AF de nuovo, Incomp. RBBB. Po dolasku na kliniku, radi se urgentan UZ srca koji nalazi veliku desnu komoru i potvrđuje našu dijagnozu.
Zaključak: Anamneza, fizikalni pregled, ecg i Tintinalli su ključni faktori za postavljanje dijagnoze na prehospitalnom nivou.
Ključne reči: Plućna trombo embolija

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ZAŠTO SE NE ZAPOČINJE KPR OD STRANE SVEDOKA ISZ-A?

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ZAVOD ZA HITNU MEDICINSKU POMOĆ KRAGUJEVAC, SRBIJA

Uvod: Iznenadni srčani zastoj (IZS) predstavlja konačan nepovoljni ishod niza događaja kod mnogih urgentnih stanja, najčešće u vanbolničkim uslovima. Učestalost IBSZ u Evropi iznosi 17-53 na 100000 stanovnika. Zbog neuspešne KPR u Evropi godišnje umre oko 350000 osoba. Uključivanjem Srbije u međunarodni projekat EuReCa One i praćenjem epidemioloških podataka o IBSZ od oktobra 2014.godine, prvi put smo dobili mogućnost da ih upoređujemo međusobno, kao i sa zemljama Evrope i regiona.
Materijal i metode: U ZHMP Kragujevac su u periodu od 01.01-31.12.2016.godine prikupljani podaci o slučajevima izvanbolničkog ISZ, sa praćenjem jednomesečnog preživljavanja pacijenata kod kojih je došlo do povratka spontane cirkulacije (ROSC) i unošeni su u jedinstveni obrazac po "Utstain" metodologiji praćenja ISS. Rezultati su dobijeni primenom osnovnih statističkih metoda, a incidenca je prikazana na 100000 stanovnika.
Rezultati: U toku 2016.god. su zabeležena 373 slučaja IBSZ, što predstavlja incidencu od 208.52/100000 stanovnika. Kod 1/3 ili 125 slučaja je započeta KPR (incidenca 69.88/100000 stanovnika). U 92% ISZ je osvedočen od strane laika, ali je KPR pre dolaska ekipe HMP započet u samo 6 slučaja (incidenca 3.35/100000). Šokabilan inicijalni ritam (VF/VT) je zabeležen kod 17

pacijenata (incidenca9.5/100000 stanovnika), dok je uspostavljanje spontane cirkulacije (Rosc) zabeleženo kod 15 osoba (incidenca 8.39/100000 stanovnika). Jednomesečno preživljavanje je zabeleženo kod 4 pacijenta sa incidencom n2.24/100000 stanovnika, što predstavlja 26.67% od broja pacijenata kod kojih je uspostavljen Rosc.
Diskusija: Iako zlatni standard preživljavanja ISZ-a predstavlja lanac: očevidac-rano započet KPR-šokabilni ritam, pomoć očevidaca najčešće izostaje i svodi se na telefonski poziv službi HMP. Razlog ovome je nedostatak svesti građana o aktivnom učešću u pružanju prve pomoći i da započinjanjem mera osnovne životne potpore (BLS) zapravo kupuju vreme unesrećenom do dolaska ekipe HMP. Neophodna je edukacija stanovništva za rano prepoznavanje ISZ od strane očevidaca, pravovremeno pozivanje broja 194 i pružanje mera BLS-a do dolaska ekipe HMP. Takođe je potrebno postavljanje spoljašnjih automatskih defibrilatora (AED) na najfrekventnijim javnim mestima, kao i obuka građana za njihovo korišćenje.
Ključne reči: iznenadni srčani zastoj, KPR, EuReCa

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Broj apstrakta: 032

PTE-PRIKAZ SLUČAJA?

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Uvod: Plućna embolija je opstrukcija protoka u plućnoj arteriji i/ili njenim granama izazvana embolusom, stranim tijelom ili vazduhom koji cirkulacijom dospijeva u pluća iz udaljenog dijela tijela. Obično je riječ o tromboemboliji pluća, izazvanoj trombom koji je uglavnom porijeklom iz dubokih vena karlice ili donjih ekstremiteta, te su duboka venska tromboza (DVT) i embolija pluća (PE) praktično neodvojivi slijed događaja koje savremena medicina označava kao venski tromboembolizam. Po učestalosti PTE je na trećem mestu među kardiovaskularnim bolestima sa godišnjom incidencom od 100 do 200 novooboljelih na 100000. Uzrok bolesti dijagnostikovan je u samo 7% slučajeva, dok kod preostalih 93% nije. Godišnje se u Evropi ustanovi od 6-20 slučajeva na 10.000 stanovnika. 7-11% pacijenata ima fatalan ishod. PTE se u osnovi teško prepoznaje zato što simptomi variraju u zavisnosti od obima zahvaćenosti krvnih sudova kao i od zdravstvenog stanja pacijenta. PTE se prezentuje i asimptomatski, u kojima se otkriva slučajno kao i najteže forme u kojima je prva i jedina manifestacija naprasna smrt. Etiologiju je objasnio Virhow i to da razvoju tromboze pogoduju tri faktora: hiperkoagulabilnost krvi, hemodinamske promjene u krvnom sudu i oštećenje endotela.
Materijali metode: Prikaz slučaja pacijenta na osnovu ljekarskog pregleda i knjige protokola UC KCCG. Kao izvor podataka korišćen je protokol pacijenata UC KCCG za 2017. godinu
Prikaz slučaja: Muškarac star 56 godina dolazi u UC zbog nelagode u grudima praćenim "osjećajem da ne može dovoljno da udahne", osjećajem lupanja srca i opštom malaksalošću. Simptomi su počeli unazad par sati ali da su unazad sat intenzivirani. Navodi da ima osjećaj da mu "neko sjedi na grudnu kost". Bivši je pušač, ne konzumira alkohol, hipertenzija unazad 15 godina dijabetičar unazad 5 godina na OAD. Unazad 2 godine povremeno osjeća "lupanje srca", redovni pregledi kardiologa, učinjen holter prije 6 mjeseci uredan–bez medicinske dokumentacije.Pozitivna porodična anamneza za KVS oboljenja. Fizikalni nalaz: svjestan, orijentisan, komunikativan, blago uznemiren, eupnoičan u miru, nešto bljeđi, puls 120/min; hipotenzivan, KP: 90/55 mmHg. Pulmo: diskretno oslabljen disajni šum difuzno. Cor: srčana akcija ritmična, tonovi jasni, šum ne čujem. EKG: sinusni ritam, frekvenca 120/min, BDG. Postavljene dvije venske linije, uzete kompletne lab.analize uključujući i D-dimer i kardiospecifične enzime, uključen 0,9% NaCl a 500ml - 50ml/h, pacijent monitorizovan, dat O2 pute 4 l/min. Pacijent se subjektivno bolje osjeća. D-dimer petostruko povišen, upuće na MSCT koji nam potvrđuje PTE. Pacijent odmah preveden u Koronarnu jedinicu intenzivnog liječenja radi daljeg tretmana.

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Diskusija: Savremeni aspekti nastanka tromboze počivaju na prirodnom sistemu koagulacije što podrazumijeva balans koagulacionih i antikoagulacionih faktora kao i interakciju koagulacionog i fibrinolitičkog djelovanja (prirodne trombolitičke aktivnosti). Rizik za nastanak tromba nastaje onda kada dođe do neravnoteže u korist veće koagulabilnosti, što je slučaj kod trombofilije (genetska bolest), kod malignih bolesti (gdje sam tumor luči prokoagulantne materije), tzv. paraneoplastični sindrom, u trudnoći, pri uzimanju oralnih kontraceptiva, kod hormonske supstitucije u menopauzi. Kod sumnje na PTE primjenjuju se skorovi koji pomažu u procjeni vjerovatnoće PTE. Uz pomoć Vels skora stepen vjerovatnoće se može definisati kao mali, srednji ili veliki. Tu su zatim testovi krvnih parametara, prije svega D-dimer test ali i radiološke metode. D-dimer je kod PTE skoro uvijek povišen ali ne i obavezno, te je vrlo važan u slučajevima male ili srednje vjerovatnoće. Zlatnim standardom u dijagnostici PTE smatra se plućna angiografija sa kontrastnim pregledom. Stepen rizika se procjenjuje na osnovu PESI skora - Pulmonary Embolism Severity Index od koga zavisi vrsta terapije.
Ključne reči: plućna embolija, tromb, tromboembolija, plućna arterija

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MEDICINSKA GREŠKA U URGENTNOJ MEDICINI - SUDSKO MEDICINSKA EVALUACIJA

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Uvod: Najveći broj studija o medicinskim greškama baziran je na ishodu medicinskog tretmana hospitalizovanih pacijentata, zbog čega se o učestalosti i prirodi grešaka u urgentnoj medicini nedovoljno zna. Medicinske greške u urgentnoj medicini spadaju u "najpreventabilnije". Specifičan odnos između stepena rizika i mogućnosti prevencije medicinskih grešaka u urgentnoj medicini imperativno nameće potrebu za identifikacijom njihove učestalosti, prirode i etiologije, kao i kreiranjem odgovarajućih setova preventivnih mera.
Materijal i metode: Sudsko medicinska analiza kliničke prakse i medicinske literature na temu medicinske greške u urgentnoj medicini.
Rezultati: Medicinska greška u najširem smislu podrazumeva nenamerno narušavanje zdravlja pacijenta prilikom pružanja zdravstvene zaštite (medicinskog tretmana). Medicinska greška ne implicira i lekarsku odgovornost (stručnu grešku). Faktori koji predisponiraju greške u radu u urgentnoj medicini su:
- disparitet između dijagnostičko-terapijskih mogućnosti, potreba pacijenta i očekivanja članova porodice;
- vremenski tesnac u okviru koga se deluje;
- nepredvidljivost dejstva lekova i medicinskih procedura, individualne karakteristike organizma ka reaktivnim komplikacijama prema određenim tretmanima (svaki ljudski organizam je drugačiji, individualne reakcije na određene medicinske mere ne mogu se sigurno predvideti ni kontrolisati);
- mentalna preopterećenost medicinskog osoblja (kognitivni teret radom), kompromitovan timski rad;
- priroda i specifičnosti smenskog rada, fizička iscrpljenost medicinskog osoblja;
- nedostatak sistemske komunikacije i povratnih informacija o zdravstvenom stanju zbrinutih pacijenata;
- nedostatak usvojenih standarda lečenja, postupanja i edukacije, tehnološke opremljenosti, organizacije posla, organizacije zdravstvenog sistema i mesta struke u njemu.
Urgentna medicina je svrstana u grupu medicinskih specijalizacija visokog rizika prema grešci (hirurgija, obstetricija/ginekologija, urgentna medicina, anesteziologija i radiologija). U grupu "niskorizičnih" spadaju grane preventivne medicine, opšta i porodična medicina, psihijatrija, imunologija/alergologija, endokrinologija.

Zaključak: Determinacija, analiza i iznalaženje rešenja za navedene faktore predstavljaju polazne korake u prevazilaženju i prevenciji medicinskih grešaka u urgentnoj medicini**.**
Ključne reči: medicinska greška, urgentna medicina, prevencija

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KADA MELEMI NADVLADAJU MEDICINU
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OB PIROT, SLUŽBA ZA ANESTEZIJU I REANIMACIJU

Uvod: Sepsa se definiše kao po život ugrožavajuća disfunkcija organa izazvana neadekvatnim odgovorom domaćina na infekciju. Učestalost sepse raste, najverovatnije uz sve stariju populaciju sa više komorbiditeta i njenom boljom dijagnostikom. Iako njena realna incidenca nije poznata, procene ukazuju na to da sepsa vodeći uzrok smrtnosti širom sveta.
Prikaz slučaja: Muškarac V.P. 49 god. (radnik na železnici) se sa odeljenja ortopedije prevodi u jedinicu intenzivne nege (JIN) zbog pogoršanja opšteg stanja. Uvidom u medicinsku dokumentaciju saznajemo da su prve tegobe počele u vidu svraba sa prednje strane desne potkolenice. Kako je uočio promenu na koži, pre odlaska, lekaru opšte prakse pokušao je da se sam leči. Koristio je različite meleme (kantarionovo ulje, ruski melem, melem od meda i biljaka, pčelinji vosak i jaje..). Četvrtog dana od početka bolesti odlazi kod lekara opšte prakse koji propisuje ung Synaderm i hladne obloge. Obzirom da se oko same promene pojavljuje crvenilo, otok i bol pacijent sedmog dana, biva primljen na odeljenje za ortopediju. Promene na koži dobijaju oblik ulceracije uz otok, crvenilo i bolnost cele potkolenice, sa širenjem na unutrašnju stranu nadkolenice. Pacijent je visoko febrilan 39C. Odmah po prijemu započeta antibiotska terapija: Amp Amikacin 500mg/12h i amp Orvagil 500mg/8h. Ultrazvuk krvnih sudova noge normalan. Drugog dana po prijemu pacijent bez temperature. Trećeg dana pacijent postaje dezorjentisan, hemodinamski nestabilan, više puta gubi svest, rade se dodatne analize (MSCT, UZ abdomena, color dopler). Pacijent se prevodi u JIN, sa dijagnozom Sepsis non specifikata. Vitalni parametric na prijemu: TA 85/50mmHg; SF 135/min; RF 25/min; SpO2 90%. Lab: Le 22,4 (neu 93,7); Ery 3,73; urea15, kreatinin164, albumin u padu; D-dimer 839 (norm<500); procalcitonin 3,93 (norm<0,05); acido bazni: PH 7,30, BE -6,3; lactate -3. diureza >0.5ml/kg/h Uzeti brisevi rana na analizu, hemokultura, započeta empirijska terapija: Amp Meronem 1g/8h, Amp Vancomycin 1g/12h uz ostalu suportivnu terapiju. Na koži potkolenice sledećeg dana se razvijaju bule, koje su hirurški obrađene i redovno previjane. Hemodinamski oporavak posle 48 h, a potpuni oporavak nakon 10 dana.
Diskusija: Novi skor, nazvan quick Sequential Organ Failure Assessment (qSOFA) se sastoji samo od tri elementa za procenu: izmenjen mentalni status, sistolni krvni pritisak 100 mmHg ili manje, i respiratorna frekvenca 22/min ili veća. Ovaj skor daje jednostavne kriterijume za identifikaciju odraslih pacijenata sa sumnjom na infekciju i mogućom sepsom. Vodič iz 2016 predlaže da se qSOFA kriterijumi koriste kako bi lekari lakše prepoznali disfunkciju organa i započeli terapiju već na prehospitalnom nivou.
Ključne reči: melemi, flegmona, sepsa, qSOFA

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UČESTALOST AKUTNOG KORONARNOG SINDROMA U ODELJENJU HITNE MEDICINSKE POMOĆI DOMA ZDRAVLJA BELA PALANKA U PERIODU 2007-2017. GODINE

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Uvod: Akutni koronarni sindrom podrazumeva grupu različitih kliničkih stanja koja nastaju kao posledica akutne ishemije i/ili nekroze miokarda čiji je uzrok najčešće akutna koronarna lezija, nastala rupturom aterosklerotičnog plaka u koronarnoj ateriji sa pratećom trombozom, inflamacijom, vazokonstrikcijom i mikroembolizacijom. Akutni koronarni sindrom može da se ispolji kao: nestabilna angina pektoris, akutni infarkt miokarda bez i sa elevacijom ST segmenta ili kao iznenadna srčana smrt.
Cilj rada je ustanoviti Incidenciju akutnog koronarnog sindroma u desetogodišnjem vremenskom periodu.
Materijal i metode: U radu je korišćen deskriptivni epidemiološki metod. Podaci o pacijentima su dobijeni iz njihovih zdravstvenih kartona, protokola bolesnika koji su se javili u odeljenje hitne medicinske pomoći Doma zdravlja Bela Palanka i iz Registra za koronarnu bolest srca. Rezultati su obrađeni statistički, a stopa incidencije je prikazana na 10000 stanovnika**.**
Rezultati: Ukupno je bilo 90 pacijenata sa novopostavljenom dijagnozom akutni koronarni sindrom u toku prethodne decenije. Više je bilo muškaraca (67%). Najčešća manifestacija je bila nestabilna angina pektoris 64%. Prikazani rezultati rada Odeljenja hitne medicinske pomoći dobrim delom oslikavaju zdravstveno stanje stanovnika Bele Palanke, kada je koronarna bolest u pitanju. Međutim, neadekvatan set podataka na obrascu prijave koronarne bolesti i nedovoljno ažururanje podataka u Registru imali su za posledicu nedovljno preciznu evidenciju novootkrivenih slučajeva koronarne bolesti. Smatra se da je i u celoj Srbiji broj prijavljenih lica sa koronarnim oboljenjem višestruko niži od prosečnog broja umrlih i za čak 20 puta manji od očekivanog broja obolelih od akutnog koronarnog sindroma. Na lekarima je sve, i da adekvatno zbrinjavaju obolele, i da adekvatno evidentiraju svoj rad. Tako će uvek imali jasnu sliku zdravstvenog stanja svojih sugrađana.
Ključne reči: koronarni sindrom, hitna, incidencija

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SPECIFIČNOSTI REANIMACIJE UTOPLJENIKA

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Uvod: Okruženje u kome živimo nam nameće obavezu da moramo da vodimo računa o faktorima koji mogu dovesti do oboljevanja i povređivanja, a koji su sastavni delovi sredine koja nas okružuje. Sve to može pod određenim okolnostima i uslovima, dovesti do oštećenja organizma i sledstveno tome teških posledica po bolesnika. Iako se čini da se to ne dešava takva oštećenja su sastavni deo naših života i okruženja u kome živimo. Bez obzira na njihovu učestalost ove povrede su praćene visokim procentom ivaliditeta i smrtnosti. Bez obzira šta je uzrok srčanom zastoju, osnovni postupci su rano prepoznavanje davljenja, rano alarmiranje, traženje i laičke i profesionalne pomoći, pružanje osnovnih mera reanimacije sa kvalitetno izvođenim kompresijama grudnog koša, rane defibrilacije i stručne medicinske pomoći kada stigne ekipa hitne pomoći. Međutim, neke specifične situacije u kojima može da se nađe žrtva, mogu dovesti do srčanog zastoja i tada je potrebno raditi kardiopulmonalnu reanimaciju. Utapanje predstavlja jednu od takvih situacija koja kod žrtve može da izazove srčani zastoj.
Metoda: Pregled dostupne literature

Rezultat: Zbog svojih mehanizama delovanja, utapanje ima svoje specifičnosti pristupa žrtvi, terapijskih postupaka kao i mera reanimacije koje se donekle razlikuju od uobičajenih postupaka oživljavanja. Osnovne mere održavanja života su izmenjene u smislu da se nakon utvrđivanja odsustva disanja nastavlja sa 5 ventilacija. Osim toga ne preporučuje se izvođenje reanimacija samo sa kompresijama, jer u osnovi srčanog zastoja kod utapanja u osnovi je hipoksija. Proširene mere reanimacje su izmenjene takođe u delu ventilacije gde se preporučuje izvođenje preoksigenacije pre postupka intubacije. Takođe se skreće pažnja na nepreciznost pulsnog oksimetra u određivanju saturacije kiseonikom. Preporučuje se, ako dostupna oprema dozvoljava upotrebu PEEP (pozitivni endekspiratorni pritisak). Naglašava se potreba za eliminisanjem uticaja hipotermije na osobu sa srčanim zastojem. Komplikacije koje se mogu javiti nakon utapanja su najčešće oštećenje funkcije mozga i pluća.
Ključne reči: srčani zastoj, reanimacija, davljenje

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Broj apstrakta: 037

OD DNACPR DO ReSPECT ODREDBE – U SVETU I KOD NAS

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Uvod: "Ne oživljavaj" (engl. Do Not Attempt CPR (DNACPR)) je odredba koja postoji u velikom broju zemalja i odnosi se na želju pacijenta da ne bude reanimiran. To je odluka koju pacijenti najčešće donose kako bi bili pošteđeni mera kardiopulmonalne reanimacije kada je, zbog prirode stanja ili bolesti njihova šansa za preživljavanje mala, kada nisu spremni da prihvate potencijalno nizak kvalitet života posle primarno uspešne CPR, ili iz nekog drugog razloga.
Materijal i metode: Analiza stručnih publikacija u medicinskim časopisima i na internetu.
Rezultati: Različite varijante DNACPR odredbe razvijene su u različitim zemljama, tako da postoje još i: POLST (The Physician Order for Life Sustaining Treatment, MOST (Medical Orders for Scope of Treatment), CYPACP (Child and Young Persons Advanced Care Plan), CYPADM (Child and Yang Persons Acute Deterioration Management), UFTO (Universal Form of Treatment Options) i druge. U toku je i razvoj ReSPECT strategije (Recommended Summary Plan for Emergency Care and Treatment) koji bi trebao da obuhvati sve mogućnosti u kojima bi mogla da se odvija CPR- prebivalište pacijenta, dom za stare, ambulantna kola, bolnica, mogućnost srčanog zastoja u prisustvu lekara koji nije na dužnosti itd. U Srbiji, DNA CPR odredba nije regulisana zakonom.
Diskusija: Postoje osobe koje ne žele da budu reanimirane, i zakonodavstvo mnogih zemalja je prepoznalo tu njihovu želju i pravo. Glavni cilj razvoja različitih formi DNACPR odredbe je da se pacijentima približi i olakša donošenje odluke o tome da li žele da budu reanimirani, kao i da akcenat bude na tome koje medicinske mere pacijent želi da prihvati. Bilo koja forma DNACPR odredbe ne isključuje antibiotike, analgetike, hemoterapiju, hemodijalizu i druge simptomatske i suportivne mere. Postoje brojne poteškoće su vezane za formulisanje i poštovanje DNACPR odredbe. Istraživanja su pokazala da se pacijenti, iako ne žele da budu podvrgnuti invazivnim merama CPR, ipak se ne izjašnjavaju protiv mera CPR iz straha da neće dobiti adekvatnu pomoć u meri u kojoj bi želeli. Neke studije su pokazale da se pacijentima koji su se izjasnili za DNACPR opciju ređe rade analize krvi, da kraće borave u jedinicama intenzivne nege i da se češće i ranije otpuštaju iz bolnice. U Srbiji, iz bojazni da će biti optuženi za neadekvatno lečenje i pružanje pomoći, lekari, naročito u prehospitalnim uslovima, pod pritiskom rodbine, javnosti i sopstvene savesti, često pokušavaju CPR kod pacijenata sa ireverzibilnim poremećajima gde su šanse za uspeh minimalne, a potencijalni kvalitet života nikakav.
Zaključak: Razgovor sa pacijentom na temu prognoze bolesti, mogućih komplikacija i mogućnosti CPR nije lak. Ukoliko pacijent i/ili lekar nisu spremni da razgovaraju o tome, može se desiti da pacijent bude podvrgnut pokušaju CPR koji neće dati željene rezultate ili kvalitet

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života posle CPR neće biti prihvatljiv za pacijenta Razvijanje različitih DNACPR formi omogućava pacijentima da u kritičnim trenucima dobiju one medicinske mere koje su za njih najprihvatljivije i potencijalno najkorisnije, a zdravstvenim radnicima olakšava donošenje odluke o započinjanju CPR.
Ključne reči: CPR, DNACPR, ReSPECT.

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VARTINOV TUMOR U MAKSILARNOM SINUSU – PRIKAZ SLUČAJA

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1. KLINIKA ZA ORL I MFH, KLINIČKI CENTAR CRNE GORE, 2. ZAVOD ZA HITNU MEDICINSKU POMOĆ CRNE GORE, 3. URGENTNI CENTAR BEOGRAD, SRBIJA

Uvod: Hildebrand je 1895. prvi opisao heterotopni Warthinov tumor, koji je ekstraparotidno u 8%, a u maksilarnom sinusu je rijedak. Asimptomatski su i liječe se hirurškom ekstiracijom.
Metoda: Prikazujemo slučaj pacijenta muškog pola starog 43 godine sa Vartinovim tumorom u lijevom maksilarnom sinusu. Pacijent je bio praktično bez simptoma.
Prikaz slučaja: Kliničkim pregledom iznad korjenova zuba 34 i 35 palpabilni izraštaj elastično mekane konzistencije, veličine oko 2,5 x 2cm, blago bolan na palpaciju. Radiografski nalaz ukazuje na prisustvo cistične promjene u predjelu prednjeg zida maksilarnog sinusa. Nakon preoperativne pripreme, urađena je operacija ekstirpacije cističnog tumora. Patohistološki nalaz je pokazao da je u pitanju Warthin tumor. Kod cističnih promjena u maksilarnom sinusu moramo posumnjati na cistadenolimfom, koji je rijedak a blagovremenim operativnim liječenjem se postižu dobri rezultati.
Ključne reči: Vartinov tumor

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UPOTREBA PROXIMALNOG C5 GRAFTA KOD PARALIZE GORNJEG BRAHIJALNOG PLEXUSA

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KLINIKA ZA NEUROHIRURGIJU KCS, SRBIJA, 2 URGENTNI CENTAR KCS, SRBIJA

Uvod: Kod pacijenata sa traumatskom povredom srednjeg brahijalnog pleksusa C5-C6 međunarodni vodiči snažno favorizuju nervni transfer nad tradicionalnom graftom nerva.
Međutim, u slučajevima sa infraganglionarnim lezijama C5-C6, funkcionalno zadovoljavajući oporavak bi se mogao postići sa nervnim graftom.
Prikaz slučaja: Kod 25-godišnjeg muškarca sa C5-C6 paralizom brahijalnog pleksusa se izvodi nervni grafting od C5 do muskulokutanog i axilarnog nerva tri i po meseca nakon povrede. Pacijent je tokom dve godine praćen i imao je čitav spektar aktivne flexije lakta, bio je u stanju da nosi 20 kilograma uz aktivnu abdukciju do 60º sa stabilizacijom ramena.
Diskusija: Preoperativna EMNG je pokazala odsustvo senzitivnih nervnih akcionih potencijala i prisustvo motornih akcionih potencijala rhomboidnih mišića, serratus anterior mišića i paraspinalnih mišića na nivou C5. Cervikalni i kortikalni odgovori su bili prisutni u toku preoperativne SSEP. Motorni odgovor TES (neurogenskih MEP) su snimljeni bipolarnim rolo elektrodama, postavljenim na korenu C5, distalno od intervertebralnog otvora. Nasuprot tome, neurogeni MEP su bili odsutni iz srednjeg stabla, gornjeg stabla i bočnih i zadnjih rogova nakon TES.
Zaključak: Detaljna preoperativna evaluacija i IOM su važni i neophodani deo u lečenju povreda brahijalnog pleksusa i perifernih nerava. Svaki pacijent mora biti procenjen individualno, a u

slučajevima infraganglionarih povreda treba razmisliti o korišćenju metode presađivanja nerava ili njegovu kombinaciju sa nervnim transferom.
Ključne reči: graft nerva, paraliza brahijalnog plexusa

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IZBOR HIRURŠKOG PRISTUPA PRELOMIMA ZGOBNOG NASTAVKA

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Uvod: U zavisnosti od nivoa na kome je došlo do preloma zglobnog nastavka donje vilice vrlo često to uslovljava i zahteva adekvatan hirurški pristup radi repozicije ulomaka i osteosinteze istog. Tip preloma, kliničko iskustvo i opredeljenost hirurga usloviće i pristup prelomu. Imajući činjenicu u vidu da je to zona distribucije n.facialisa i vaskularnih struktura, različiti su stavovi koji opredeljuju hirurge koji način prihvatiti, najčešće se pristupalo submandibularnim angularnim rezom za repoziciju i osteosintezu fragmenata kondilarnog nastavka donje vilice, ali je ovaj metod za visoke prelome na neki način limitirajući jer ne pruža dovoljnu preglednost operativnog polja a otežava i sam čin osteosinteze, ograničeno malim prostorom.
Cilj: Uporediti rezultate primenjenog transparotidnog pristupa po Al-Kayat Bramley kod jednostranih i obostranih preloma vrata kondila i subkondilarnih preloma sa rezultatima dosadašnjih pristupa.
Materijal i metode: Subkondilarni prelomi se u svetskoj literaturi kreću od 17-53% svih preloma donje vilice. Po klasifikaciji Zide i Kent (1980) opisali"zlatni standard" u tretmanu traume zglobnog nastavka kroz indikacije i kontraindikacije za operativnim zahvatom ovog predela. Period sagledavanja koji smo uzeli je od januara 2006. do decembra 2016.godine gde je operisano 69 ovih pacijenata. Rez koji smo koristili je"hokey stick" po Al-Kayat Bramley, to je endouralni, transparotidni pristup zglobu. Postoperativni klinički parametri kojima smo se rukovodili su stepen otvaranja vilica, devijacija brade pri činu otvaranja vilica, okluzalni odnos-(ključ okluzije mera uspešnosti uspostavljene korektne okluzije), funkcija temporomandibularnog zgloba, radiografski nalaz kao i druge postoperativne komplikacije koje sobom nosi prelom vilične grane: postojanje infekcije, prelom mikroploče za osteosintezu, kao i trajna paraliza facijalnog nerva. Posmatrani su isključivo pacijenti koji su imali adekvatan broj zuba da bi se uspostavio ključ okluzije.
Rezultati: Izučavali smo grupu od 69 bolesnika sa kondilarnim prelomima, od toga njih 47 je bilo sa jednostranim prelomima kondila i 22 slučaja sa obostranim prelomima zglobnog nastavka. Postoperativno praćenje pacijenata bilo je od 1 do 10 godina. Okluzalni odnosi dobijeni kod pacijenata su bili sa postignutom interkuspidalnim preklopom, sa stepenom otvaranja vilica maksimalno 39mm (maksimalno 44 i minimalno 27mm), a ograničeno otvaranje usta prijavilo je 3 pacijenta koji su nakon fizikalnog tretmana u trajanju od 10 dana popravili nalaz koji se uklopio fiziološke okvire. Dijagnostičke procedure iskazane kroz ortopantomografsko snimanje i kompjuterizovanu tomografija pokazali su nam potpunu anatomsku restituciju kondilarne frakture. Slabost lica prolaznog tipa javila se kod 7/69 pacijenata (10,14%), nismo imali infekcija, preloma mikroploča i trajnih paraliza facijalnog nerva. Uspešnost sprovedenog metoda lečenja bila je 89,86%.
Zaključak: Izbor hirurškog pristupa u lečenju preloma zglobnog nastavka donje vilice umnogome će zavisiti od iskustva hirurga i njegove procene. Pristup kojim se koristimo pokazao se opravdanim, jer nam pruža direktnu preglednost operativnog polja i samog preloma, sam čin

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zahvata smanjuje operativnu traumu kao i topografski odnos prema granama n.facialisa. Izbegava se trajno oštećenje istog.
Ključne riječi: fracture zglobnog nastavka, Al-Kayat Bramley pristup, fiksacija mikropločicom

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POSTUPCI U LEČENJU NASTALIH INFEKCIJA FEMORO-INGVINO-GLUTELANE REGIJE PACIJENATA SA KOMORBIDITETOM

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Uvod: Infekcije pacijenata starije životne dobi naročito opterećene brojnim komorbitetima samo usložnjavaju njihovo opšte stanje zdravlja i smanjuju odgovor na novonastalu infekciju koja kod njih poprima fudrojantni tok, zahvatajući i šireći se u okolne prostore sa mesta nastanka i njihovog razvoja u međufascijalne dublje prostore, kompromitujući neurovaskularne strukture. Njihovo stanje malnutricije pogoduje samom toku razvoja infekcije.
Cilj: Kroz rad želimo da prikažemo neka naša rešenja za lečenje ovakvih stanja pacijenta i neka naša rešenja za dati slučaj.
Materijal i metode: Rad je zasnovan na bolesničkom materijalu 20 pacijenata koje je hospitalizovano na odeljenjima Urgentne hirurgije kao i intezivne nege Urgentnog Centra KCS. To su različita stanja razvoja infekcije različitog toka, prevashodno locirana na femoralnu, ingvinalnu i glutealnu regiju pacijenata. U određenom trenutku lečenja primenili smo određeni broj izlaganja tih pacijenata aktivnom kiseoniku u barokomori.
Rezultati: Rezultati prikazuju naše načine zbrinjavanja, polnu distribuciju, rane i kasne postoperativne sekvele i načine njihovog razrešavanja.
Zaključak: U radu iznosimo naša iskustva i saznanja do kojih smo došli.
Ključne reči: infekcije, flegmone, glutealni predeo, femoro-ingvinalni predeo.

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SAMOUBISTVO - KONAČNA ODLUKA

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SLUŽBA HITNE MEDICINSKE POMOĆI KRUŠEVAC, SRBIJA

Uvod: Život – neprestana i nemilosrdna borba za opstanak u društvu u kome vladaju različite prirodne i neprirodne sile, te zakoni i bezakonje. Začeti iz želje za zdravim potomstvom, ljubavi i strasti novi život donosi sreću, radost, obaveze i brigu roditeljstva. Novo biće bačeno u životnu borbu uz jake unutrašnje snage i nesebičnu roditeljsku podršku grabi ka sveukupnom uspehu. Nismo svi ravnopravni-dovoljno jaki, te dostupni svakoj vrsti pomoći i podršci Prirodni kraj svakog života je neminovno smrt, bilo usled dugovečnosti i starosti, prerano usled neizlečivih bolesti ili nesrećnih okolnosti ili pravo pojedinca na konačnu odluku. Da li pojedinac ima pravo na takav sud o besmislenosti življenja i izbor na samoubistvo kao uzrok smrti? Samoubistvo - jedan istinski ozbiljan filozofski problem koji traži suštinski odgovor. Prikupljajući podatke o pokušaju samoubistva i samoubistva za petogodišnji period na teritoriji grada Kruševca za potrebe PU Kruševac i tražeći taj suštinski odgovor nameću se mnoga pitanja i pronalaženje adekvatnih odgovora što zapravo i predstavlja cilj rada. Iz ugla lekara hitne pomoći, po meni su najvažnija dva pitanja da li mi–lekari možemo bitno da utičemo na konačnost te odluke i šta

treba uraditi da je sprečimo. Na prvo pitanje nemam zadovoljavajući odgovor te se nadam da je ovo pravo mesto za adekvatnost odgovora. Dok blagovremenim prepoznavanjem beznadežnosti, očajnosti, bespomoćnosti i umora od neravnopravne borbe, te ulivaljem vere, nade i ljubavi možda, na neki period suzbijemo raspoloženja pojedinca koja ga navode na samoubistva. Naš rad na tome je Sizifovski posao.

Ključne reči: samoubistvo, uloga lekara HMP

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KADA ANAMNEZA I SVA DIJAGNOSTIČKA SREDSTVA ZAKAŽU

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1. SLUŽBA ANESTEZIJE I REANIMACIJE OB PIROT, SRBIJA, 2. CENTAR ZA ANESTEZIOLOGIJU I REANIMATOLOGIJU KC NIŠ, SRBIJA

Uvod: Pod akutnim abdomenom podrazumevamo skup simptoma koji se prezentuju u okviru naglo nastale bolesti nekoga organa, smeštenog u peritonealnoj šupljini. Sama reč akutni, želi da upozori na neposrednu opasnost po život bolesnika. Prepoznavanje akutnog abdomena direktno zavisi od tri osnovne dijagnostičke komponente i to: anamneze, kliničkog pregleda i dodatnih laboratorijskih i radioloških pretraga.

Prikaz slučaja: Muškarac Ž.R.64 god, dolazi kao hitan slučaj u hiruršku ambulantu OB Pirot, zbog jakih bolova u trbuhu i izrazite anemije. Pacijent je konfuzan, bled sa sedefastim beonjačama. Srce: akcija ritmična, sistolni šum nad ictusom; pluća: obostrano jednak pooštren disajni šum; abdomen: difuzno bolno osetljiv na površnu i duboku palpaciju sa peritonealnim nadražajem. Lab: Ery:1.92, Hb:52, Hct:0.17,TR:75. EHO abdomena: u maloj karlici detektuje se hipoehogena nepravilna promena promera 33x60mm koja Ddg odgovara tečnoj kolekciji ili promeni druge etiologije. Vitalni paremetri:TA200/120mmHg; SF72/min, RF25/min, SpO290%. Hirurg odlučuje da u pratnji anesteziologa pošalje pacijenta u instituciju višeg ranga. Pre samog polaska stižu i biohemiske analize.Urea 57.3, ,kreat 1758, K 5.6, D-dimer>10000, troponini normalni. U toku transporta koji je trajao oko 60min, pacijent agitiran, konfuzan, sa jakim bolovima u trbuhu koji se ne kupiraju analgeticima, hipertenzivan i dalje. Zbog stanja pacijenta nije bilo moguće dobiti relevantne anamnestičke podatke. Supruga daje podatke, da se pacijent loše oseća 3-5 dana, da su bolovi počeli jutros iznenada, da nikad nije bolovao od bubrega, da uredno mokri kao i da je dugogodišnji potator. Nije povraćao i da je imao normalnu stolicu. Pacijent je sagledan od strane anesteziologa, hirurga, nefrologa, hematologa i infektologa. Lab:ER 1.7, Hb 53, Hct 0.16, urea 61.8, kreat 14175, K 6.3, glikemija 5.6, CRP 57.7, D-dimer 6265, INR 0.98, Ph 6.95, BE -25.6, HCO3 5.5, Lac 1.2. AST, ALT normalni. Kreće hemodijaliza, nakon čega dolazi do pada azotnih produkata. Anuričan. Abdominocenteza negativna. Načinjen je MSCTpl.areterija, abdomena i male karlice-nama detektabilnih akutnih promena na parenhimatoznim organima abdomena. Nema znakova za PTE. Drugog dana od prijema dolazi do cardiac arresta, reanimiran i od tada na mehaničkoj vetilaciji(BiPAP). Od strane infektologa, toksikologa i hematologa nisu potvrdjene sumnje na hemoragične groznice, trovanja kao i druga hematološka oboljenja. Pacijent tretiran antibiotskom terapijom, preparatima krvi, hemodijalizaran. U toku lečenja došlo je do pada azotnih produkata ali uz porast inflamatornih parametara (CRP, PCT, Le, granulocita), poremećaja koagulacionih patrametara u smislu diseminovane intravaskularne koagulopatije, blaže korekcije anemije i acidoze. Exitus letalis nastupa 10.dana od prvog kontakta sa lekarom pod dijagnozom Colice abdominalis, ABI, HTA, Anemia gravis, Sepsis.

Zaključak: Prikazali smo pacijenta koji od samog početka prezentacije bolesti nije bio jasan. Oskudni anamnestični podaci (kao i hetroanamnestički) koji su možda mogli da daju jasniju ideju o samoj bolesti nisu mogli biti dobijeni. Sva dostupna dijagnostička sredstva nisu uspela da izdiferenciraju sam uzrok za nastanak ovog akutnog događaja u trbuhu u odnosu na dobijene

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podatke. Diferencijalno dijagnostički razmatrana su različita patološka stanja, od perforacije i krvarenja u trbuhu, preko hemoragijske groznice do akutizacija hroničnog stanja. Iako nam je jasno da je pacijent umro u uremiji, sepsi i DIK-i uz sav napor koji smo uložili pravi patološki supstrat je ostao nejasan. Nažalost, klinička obdukcija koja je možda mogla da da odgovor na naša pitanja, nije rađena.

Ključne reči: anamneza, dijagnoza, neuspeh

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ULOGA I ZADACI MAKSILOFACIJALNOG HIRURGA U TRETMANU TRAUME U URGENTNOM CENTRU

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KLINIKA ZA NEUROHIRURGIJU KC SRBIJE, SRBIJA

Uvod: Izazovi savremenog doba, brz tempo rada i života imaju svoj odraz u nastajanju trauma. Trenuci smanjene koncentracije i nepažnje mogu rezultirati nesrećama, bilo da su one u saobraćaju, na radu tokom rukovanja mašinama i alatima, padom sa visina, pokušajem suicida, povrede vatrenim ili hladnim oružjem, nastale nasiljem ili bavljenjem sportom i stanja sa infekcijom. Zona glave i vrata sa svojom osobenom arhitektonikom i organima, kao i bogatstvom neurovaskularnih struktura znatno usložnjavaju svaku povredu ovog predela.
Metodologija: Pregled dostupne literature
Sinteza podataka: Etiološki povrede ovog predela nastaju kao posledica dejstva tupe traume visoko energetskog potencijala, koji razvija velike destrukcije i deformitete kako mekotkivnog pokrivača tako i koštanog masiva koji čini svojevrsnu formu i potporu ovom tkivu. Zbog bogatstva krvnih sudova kojim obiluje glava i vrat, kao i značajnih organa ove su povrede jako impresivne u trenutku kada takvog pacijenta imate pred sobom. A vrlo često u Urgentnim centrima i hitnim ambulantama je neminovan susret sa takvim pacijentom. Zbrinjavanje ovih trauma je značajno evoluiralo u poslednjih nekoliko decenija čime se znatno smanjila smrtnost u zlatnom satu. Međutim, izazovi i dalje postoje, a takvo je područje kraniofacijalnih povreda u politraumi pacijenata. Teške povrede maksilofacijalnog predela–panfacijalne ili kraniofacijalne mogu se zakomplikovati još u ranom rešavanju traume pacijenata, pre svega zbog blizine mozga, vratne kičme, larinksa, disajnih puteva, impresivne hemoragije iz magistralnih krvnih sudova. Višestruke povrede naročito srednjeg i donjeg masiva lica, kao i povrede vratnog predela, mogu ugroziti disajne puteve, disanje, cirkulaciju, i usloviti ispade neuroloških funkcija. Vrlo često ove povrede mogu biti po svom toku opasne po život. Održavanje disajnih puteva bolesnika sa maksilofacijalnom traumom često je vrlo teško i složeno a presudno može diktirati preživljavanje pacijenata, jer je traumom ugrožen i deo disajnih puteva pacijenata i njihovo disanje je ugroženo. U ovih pacijenata, postavljanje maske za ventilaciju i endotrahealna intubacija se po pravilu sprovodi teško. Osim toga, kod nekih od ovih pacijenata može biti udruženo oštećenje cervikalne kičme što usložnjava sam čin intubacije, i svi se smatraju da imaju pun stomak te imaju povećan rizik od regurgitacije i plućne aspiracije. Odluka o sprovođenju maksilofacijalne operacije ponekad onemogućava korišćenje klasičnog načina intubiranja pa se pribegava alternativnom metodu koji će omogućiti i osigurati disajne puteve pre početka operacije. U cilju poboljšanja kliničkih ishoda bolesnika sa maksilofacijalnom traumom, potrebna je saradnja između maksilofacijalnog hirurga, anesteziologa i neurohirurga. Algoritam prioriteta na osnovu kliničke slike pacijenata sa panfacijalnim ili kraniofacijalnim visokoenergetskim povredama i zbrinjavanje takvih pacijenata bili bi: procena disajnih puteva, disanje i cirkulacija uz imobilizaciju cervikalne kičme. Rano otkrivanje bolesnika sa teškim povredama larinksa uz potvrdu endoskopije. Uspostavljanje hirurški disajnog puta u slučajevima opstrukcije istog ili ukoliko postoji laringotrahealna disocijacija. Dijagnostika ima svoje posebno mesto, naročito MDCT sa 3D rekonstrukcijom glave i vrata, je od suštinskog značaja za konačnu

dijagnozu i hirurško planiranje povreda, sa ciljem da se planom zbrinjavanja pre operacije izbegnu komplikacije i postignu što bolji funkcionalni rezultati.
Zaključak: U ovom pregledu, govorimo o složenosti pristupa bolesniku sa maksilofacijalnom traumom i rad predstavlja naš pristup u zbrinjavanju ovih povreda, kroz primere iz prakse i saznanja do kojih smo došli iskustveno zbrinjavajući iste.
Ključne reči: maksilofacijalni hirurg, trauma

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DAMAGE CONTROL SURGERY-NAŠE PETOGODIŠNJE ISKUSTVO

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KLINIKA ZA URGENTNU HIRURGIJU, KCS, SRBIJA

Uvod: Damage control surgery (DCS) je napredni oblik hirurgije koja je najefikasnija ako je obavljaju najiskusniji hirurzi kod pacijenata sa najtežim povredama, koji, ako se sa tretiraju na uobičajen način, imaju male šanse da prežive. DCS se odnosi na sve procedure koje se sprovode sa ciljem povećanja stope preživljavanja.
Materijal i metode: Studija je obuhvatila 1030 operisanih pacijenata nakon prijema u bolnicu sa velikim povredama trbuha i grudnog koša (ISS≥18) u periodu od pet godina (2011-2015). Pacijenti su podeljeni u dve grupe, na osnovu toga da li DCS sprovedena inicijalno (grupa 1) ili nakon ponovljene operacije (grupa 2). Podaci su sakupljani iz baze podataka. Indikatori za sprovođenje ove vrste operacije (procena hirurga da postoje velika intraoperativna nehirurška krvarenja, hemodinamska nestabilnost sa potrebom za visokim nivoom intraoperativne transfuzije ≥4000ml krvi), tip i ozbiljnosti povreda, starosti, više komorbiditeta, laboratorijske karakteristike. Na kraju, analizirali smo intraoperativni i rani postoperativni mortalitet.
Rezultati: DCS proceduralne mere su sprovedene u 8.1% (83 bolesnika). Indikacije su postavljene na osnovu procene hirurga o nehirurškim krvarenjima (koagulopatije) u 83% (66 bolesnika) i intraoperativne nadoknada krvi ≥4000ml u 17% (14 bolesnika) kod inicijalnih operacija, odnosno nekontrolisanog krvarenja iz drenova sa visokim stepenom hemodinamske nestabilnosti posle inicijalne operacije.Ukupna Smrtnost je 61,4% (51 bolesnik). Najčešći slučajevi su: oštećenja jetre (49 bolesnika), karlice i retroperitonealne povrede (19 bolesnika), povrede velikih krvnih sudova (7 bolesnika), povrede pankreasa (2 bolesnika), povrede grudnog koša (6 bolesnika). DCS je realizovan početno u 63,8% slučajeva (53 bolesnika), dok je izvedena u 36.1% slučajeva (30 bolesnika) nakon ponovljene operacije unutar vremenskog intervala u rasponu od 1 do 12 sati posle prve operacije. U prvoj grupi stopa smrtnosti 47.2% (25 poena), dok je stopa mortaliteta u drugoj grupi je 86,6% (26 bolesnika).
Zaključak: Veća stopa mortaliteta u grupi pacijenata koji su kasnije tretirani u skladu sa DCS proceduralnim merama pokazuje značaj blagovremenog sprovođenja ovog metoda. Potcenjivanje ozbiljnosti povrede, zakasnelo prepoznavanje potrebe za implementaciju DCS, naročito donošenje odluke nakon inicijalne operacije, dovode do minimuma preživljavanja.
Ključne reči: Damage control surgery, velika abdominalana trauma, velika torakalna trauma, hirurške odluke.

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STATUS EPILEPTIKUS NA TERENU

M.Bogdanović[1], R.Tuna[1], M.Petrović,[1] S.Radojičić[2]
1. ZAVOD ZA HITNU MEDICINSKU POMOĆ CRNE GORE, OJ CETINJE, CRNA GORA,2. OB „DANILO I“, CETINJE, CRNA GORA

Uvod: Epilepsija je bolest koja nastaje zbog poremećaja moždane funkcije koja se očitava naglim električnim pražnjenjem velikog broja neurona u mozgu. Uzroci epilepsije mogu biti idiopatski tj (nasledni faktor igra bitnu ulogu) i simptomatske epilepsije čiji uzroci mogu biti mnogobrojni (moždani tumori, povrede glave, CVI, intoksikacije, alkoholizam..). Zbog poremećaja moždane aktivnosti u jednom djelu mozga dolazi do oštećenja neurona i njihovog električnog pražnjenja koji u kliničkoj slici za sobom ostavljaju mnogobrojne simptome i znake, od onih najmanjih do onih koji su životno ugrožavajući. Zavisno od grupe pogođenih neurona, njihove lokalizacije i veličine atakovanog područja napad epilepsije moze se očitavati kao:
1.Parcijalni napad-jednostavan: motorni, senzorni, autonomni i psihički simptomi u trajanju od minut, dva. Kompleksni parcijalni napadi očitavaju se istim simptomima ali su izraženiji i traju duže. Zajednička karakteristika oba napada jeste da ne dolazi do gubitka svijesti.
2.Generalizovani napad-po tipu petit mal (absence-odsutnost) u trajanju oko 10sek., praćen blagim kloničnim pokretima i automatizmima, povećanjem ili smanjenjm mišićnog tonusa, hiperventilacijom. Grand mal (primarno generalizovani tonično klonični napadi) koji počinje miokloničnim trzajevima, gubitkom svijesti, porastom mišićnog tonusa i klonusom, inkontinencijom i ujedom jezika. Promjena stanja svijesti ili gubitak svijesti je prisutan.
Prikaz slučaja: Poziv od strane rodbine u večernjim satima da je njihov član porodice, M.L. starosti 54 godine doživio epileptični napad koji u trenutku poziva i dalje traje. Po dolasku ekipe, zatičemo pacijenta i ležećem položaju, bez svijesti, na leđima. Saznajemo da boluje od epilepsije unazad 30 godina, ne uzima redovnu terapiju, alkoholičar. Zbog udaljenosti terena zaključujemo da napad traje duže od 15 minuta. Stanje pacijenta bez svijesti, prisutni tonično-kloničnih trzaji, ugriz jezika, inkontinencija. TA: 80/50mmHg, Puls: 110/min, Cor: Srčana akcija ritmična, tahikardična tonovi jasni, šum ne čujem. Pulmo: disajni tonovi tiši obostrano. Glikemija 2,3 mm/l. Neurološki: tonično klonični trzajevi, mišićni tonus pojačan. Pacijent okrenut na stranu, oslobođen disajni put i postavljena venska linija. Plasira se kiseonik putem maske, protok 6l/min, diazepam 5 mg IV, ne dolazi do prekida napada, data druga ampula diazepama, nakon datih jos 3 ml, napad prestaje. Uključen 10% rastvor glukoze, pratimo vrijednosti glikemije. U toku pregleda dolazi do poboljšanja, SAT O2 93%, glikemija 5,6 mml/l, puls i dalje 110/min, TA 80/55 mmHg. Pacijent somnolentan. Pacijenta prevodimo u ambulantna kola, transportujemo u prvu zdrastvenu ustanovu, u toku transporta pratimo vitalne parametre. SAT 02 96%, glikemija 8,8 mmol/l, dato 500 ml NaCl, pristisak raste, fr 87/min. Transportovan na Interno odijeljenje OB Cetinje, gdje je preveden na hospitalni tretman epileptičnog statusa.
Zaključak: Konvulzivno Epilepticni Status (KES), životno ugrožavajuće stanje koji se karakteriše serijom epileptičnih napada koji se javljaju odjednom ili u kraćim pauzama u trajanju dužem od 15 minuta gdje se vjerovatnoća nastanka moždanih lezija povećava povećanjem dužine trajanja KES-a, što nam govori da blagovremeno prepoznavanje, incijalni tretman sa ciljem zaustavljanja napada, igra bitnu ulogu u preživljavanju ovih pacijenata i sprečavanja ireverzibilnih promjena u mozgu.
Ključne reči: status epilepticus

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Broj **abstrakta: 047**

POLITRAUMA – PRIKAZ SLUČAJA

B.Nuhiu
SLUŽBA HITNE MEDICINSKE POMOĆI, PREŠEVO, SERBIA

Uvod: politrauma je stanje višestruke povrede tela, kada su obuhvaćeni dva ili više organa, dve ili više regije, dva ili više ekstremiteta, tačnije politrauma podrazumeva višestruku traumu.
Prikaz slučaja: Muškarac, Š. M., rođen 05.01.1966, u popodnevnim satima dana 24.04.2017, oko 18 sati, dovežen je privatnim kolima iz obližnjeg sela, oko deset km udaljeno. Pacijent je u svesnom stanju, komunikativan, preznojen, blatnjav i prašnjav, u sedećem položaju na prednjem sedištu automobila. Na potkolenicama vide se povrede, oguljotine, razderotine, povrede mekih tkiva, muskulature, krvnih sudova koji oskudno krvare, i na levoj potkolenici se vidi kost koja je polomljena. Saznajemo da su povrede nastale pri radu motokultivatorom u njivi, odakle je pacijent dovežen u našu službu. Na obe natkolenice, desetak cm od kolena stoje poveske, šalovi, stegnuti. Pacijenta direktno prebacujemo na nosila sanitetskih kola, gde se mere vitani parametri, (TA-100/60 mmHg, SF-98/min, SpO2-94), nalazimo venski put, uključujemo terapiju (Sol. NaCl 0,9%-500ml, Amp.Gentamicina 160 mg, Amp. Trodon 100 mg, amp. Klometol), a istovremeno ispiramo rane fiziološkim rastvorom, 3% Hidrogenom i 10% Betadinom, rane previjamo sterilnim gazama, (prvi sloj gaze su sa betadinom), i zavojima. U ležečem položaju, sa previjanim podkolenicama, uz terapiju, i pretnju kompletne ekipe pacijenta transportujemo u ZC Vranje. Treba da napomenem da je bilo potrebno još jedno previjanje dok smo stigli do ZC Vranja zbog probijanja krvi iz postavljenih gaza. Poveske iznad kolena koje su bile postavljene, uz put smo ih gradualno popuštali. Pacijent ni jednog trenutka nije gubio svest, i vitalni parametri celo vreme su bili stabilni. Za manje od 20 min smo stigli u ZC Vranje, gde je pacijent pregledan i previjen još jednom, i na sugestiju hiruga iz ZC, našim kolima i ekipom transportovan na Kliniku za plastičnu hirurgiju u Nišu.
Diskusija: Radi se o dosta ozbiljnoj povredi, koja je nastala nesrećnim okolnostima pri rukovanju motokultivatorom. Pacient je najozbiljnije tretiran u našoj službi, zbrinut i transportovan u višu zdravstvenu instituciju. Bitno je reći da dve poveske na obe natkolenice, postavljene od strane ljudi koji su u momentu povređivanja bili prisutni, dosta doprineli da povređeni izgubi manju količinu krvi.
Kjučne reči: politrauma, potkolenice, tretman

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SAŽECI: MEDICINSKE SESTRE I ZDRAVSTVENI TEHNIČARI

Broj apstrakta: 001

AKUTNI INFARKT MIOKARDA (AIM)- ŠTA SE OČEKUJE OD MEDICINSKE SESTRE / TEHNIČARA?

J.Vešović
ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Akutni infarkt miokarda je oblik koronarne bolesti srca koji nastaje zbog potpune okluzije koronarne arterije. Uzrok naglog prekida koronarne cirkulacije, najčešće je aterosklerotična lezija koronarne arterije sa rupturom plaka. Ruptura plaka je okidač koji se završava stvaranjem tromba koji začepljuje srčanu arteriju uz manji ili veći spazam zida arterije. Ova akutna koronarna lezija, čini patofiziološku osnovu akutnog infarkta miokarda.
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: akutni infarkt miokarda, AKS, medicinska sestra, tretman. Pretraživanje je vršeno kroz: PubMed, Medline i dostupne elektronske časopise kao i raspoložive litrature
Rezultati sinteze: Prva pomoć bolesniku sa akutnim infarktom miokarda u kojoj medicinska sestra ima značajnu ulogu sastoji se od: Obezbediti pacijentu položaj koji iziskuje što manje naprezanja (pacijent ne sme da napravi ni jedan dodatni korak). Što pre uraditi EKG na osnovu kojih će lekar konstantovati promene. Priključiti pacijentu kiseonik ukoliko je saturacija manja od 92%. Primenjuje se 100%O_2, 2-4 litra/min putem nazalnog katetera ili maske. Uspostaviti najmanje jednu vensku liniju braunilom šireg kalibra. Medikamentozna terapija per os sastoji se u davanju 300mg aspirina i tbl ili spreja NTG. Intravenska terapija se daje po nalogu lekara a u najvećem broju slučajeva su to analgetici-narkotici, antikoagulanti, nitroglicerin ili dopamin – po nalogu lekara. Veoma je bitno uticati na pacijenta da se smiri i svojim stavom mu uliti sigurnost. Nakon intervencije na terenu, pacijent se transportuje u najbližu zdravstvenu ustanovu, specijalizovanim sanitetskim vozilom. Medicinska sestra kao član tima obezbeđuje kontinuiran nadzor (monitioring) nad pacijentom u toku transporta.
Zaključak: Medicinska sestra/tehničar u tretmanu pacijenta sa AIM, ima veliku i nezaobilaznu ulogu. Dobar saradnik koji poznaje prirodu i tok bolesti, koji takođe poznaje najnovije smernice u lečenju AIM i poznaje način rada svog saradnika-lekara predstavlja pravu vrednost koju treba poštovati i negovati.
Ključne reči: AIM, medicinska sestra, uloga i zadaci

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Broj apstrakta: 002

ALGORITMI ZA PREHOSPITALNU TRIJAŽU U MASOVNIM NESREĆAMA

M. Jovanović
ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Trijaža povrijeđenih u masovnim nesrećama podrazumijeva razvrstavanja povrijeđenih kako bi se omogućilo brzo prepoznavanje, osoba koje imaju prioritet u zbrinjavanju i koje će imati najveću korist od ranog zbrinjavanja i brzog transporta u odgovarajuću zdravstvenu ustanovu. Trijažni sistemi (algoritmi), moraju omogućiti brzu identifikaciju kritično povrijeđenih, bez potrebe za detaljnim pregledom svih žrtava nesreće.
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: masovne nesreće, trijažni algoritmi, trijažni protokoli. Pretraživanje je vršeno kroz: Pub Med, Medline I dostupne elektronske časopise kao i raspoložive literature.

Rezultati sinteze: Pregled postojećih sistema od strane Centra za kontrolu i prevenciju bolesti u SAD (CDC) identifikovao je 9 postojećih algoritama za trijažu u masovnim nesrećama uključujući i 2 sistema za trijažu dece. To su Simple Triageand Rapid Treatment (START), Jump START, Homebush, Triage Sieve, Pediatric, Triage Tape (PTT), Care Flight Sacco Triage Method (STM), military triage, and the Italian CESIRA (Coscienza, Emorragie, Shock, Insufficienza respiratia Rotture ossee, Altro protocol). Ovi sistemi su relativno slični i koriste 4 ili 5 trijažne grupe prilikom procena stanja žrtve. Inicijalna trijaža zavisi u velikom broju slučajeva od lokalnih Ili regionalnih protokola sa nažalost relativnom malom upotrebom na široj teritoriji. Najveći broj zemalja za sekundarnu trijažu koristi papirne trijažne kartone koji se stavljaju na žrtvu. Upoređivanjem podataka koji sistemi prikupljaju vidi se da ne postoji ujednačenost podataka ili standardizacija. Klasifikacija i definicije događaja takođe nisu ujednačene u trijažnim algoritmima. Uvidom u dostupnu literaturu procjena kvaliteta nekog trijažnog algoritma zavisi od mišljenja autora tj, mišljenja eksperata iz ove oblasti a preciznih naučnih istraživanja o efikasnosti algoritama i moguće prednosti među njima realno nema. Odluke koje se donose u procesu spašavanja ljudskih života moraju imati jasne odrednice kako bi se spriječile greške u najtežim situacijama koje se masovne nesreće.
Zaključak: U dosadašnjoj literaturi nema evidencije o nadmoći nekog algoritma posebno u oblasti masovnih nesreća koji uključuju hemijske incidente. Dakle, nema podataka koji potvrđuju i izdvajaju kao najbolji algoritam koji vodi medicinski odogovor ka najboljem ishodu. Postoji potreba za daljim istraživanjima koji će dati odgovore na ta pitanja, ali sama priroda masovnih nesreća to ne dozvoljava.
Ključne reči: Trijažni algoritmi u masovnim nesrećama

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Broj apstrakta: 003

NESREĆA SA VEĆIM BROJEM POVREĐENIH ZBOG EKSPLOZIJE GASA-PRIKAZ SLUČAJA

M.Janković
ZAVOD ZA HITNU MEDICINSKU POMOC NIŠ

Uvod: Tečni naftni gas (TNG) je smeša propana i butana, bezbojan, veoma zapaljiv i eksplozivan gas. Pošto je 1,9×teži od vazduha, zadržava se na najnižim mestima, sa kojih svojim prisustvom istiskuje kiseonik. Zato spada u grupu zagušljivaca. Samo u veoma velikim koncentracija ima lako narkotično dejstvo. Sagoreva burno, oslobađajući veliku količinu toplote, a produkti sagorevanja su ugljendioksid i vodena para. Sa vazduhom stvara eksplozivne smeše koje se lako mogu zapaliti u prisustvu otvorenog plamena. Međutim, u odnosu na druge zapaljive gasove, granice eksplozivnosti smeše TNG-a su veoma uske, tj. ako u prostoriji ili određenom prostoru ima manje od 2% ili više od 9% smeše neće doći do eksplozije čak i ako postoji izvor paljenja (zbog viška, odnosno manjka kiseonika). TNG se za široku potrošnju dodaju mu se materije prepoznatljivog mirisa, tako da se veoma male koncentracije gasa u vazduhu mogu namirisati.
Prikaz slučaja: Dana 2.04.2017, ekipa HMP dobija poziv prvog reda hitnosti koji je panično prijavljen od strane prolaznika prvo kao udes a zatim kao „eksplozija u kući“. Poziv je primljen u 15:17, predat u istom minutu a ekipa na mestu događaja u 15:20. Po dolasku, ekipe zatičemo jednog pripadnika MUP (policijska stanica je u neposrednoj blizini), na ulici zatičemo dve starije osobe. Muškarac sa većim brojem manjih posekotina po licu, ostale tegobe negira, saznajemo da je prolaznik i da je u trenutku eksplozije bio na ulici. Druga starija žena je vlasnica stana u kojoj se desila eksplozija, vidljive su opekotine 1 stepena na licu, i izgorela kosa. Oba pacijenta su označena kao zelena, i dalje nastavljamo prema kući, uz uznemirujuće povike sa strane da su unutra deca. Neposredno ispred vrata je žena srednjih godina, sa povredom noge i suspektan prelom skočnog zgloba, označna kao žuta. Na ulazu mlađa žena, čije su noge bile zaglavljene urušenim materijalom... svesna, veoma

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uznemirena. Po ulasku u prostoriju, shvatamo da je eksplozija raznela plafon i da je došlo do njegovog urušavanja, i u dnu sobe dve veoma mlade osobe (tinejdžeri). Dečko na gomili urušenog betona, bez svesti, disanja, pulsa, sa iskrivljenim i bizarno postavljenim vratom. Devojčica u potpunosti zatrpana. Dostupna nam je jedino glava, bez znakova života. Obe osobe proglašene za crne. Zbog izuzetne nebezbednosti ekipa se povlači iz prostorije i kreće sa oslobađanjem i zbrinjavanjem žene koja je imala zatrpane i povređene noge. U međuvremenu stižu i vatrogasci kao i dodatne ekipe HMP, koje smo tražili odmah po dolasku. Povrede nisu procenjene kao opasne po život i posle zaustavljanja krvarenja, imobilizacije, obezboljavanja i uključene IV tečnosti, transportovana do UC KC Niš. Ukupna intervencija je trajala 40 min.
Diskusija: U toku zbrinjavanja povređenih, kao prva ekipa na mestu događaja, koristili smo trijažni protokol Care Flight, jednostavnost korišćenja, česte edukacije i trening na modelima nam je omogućio da lako i bez mnogo nedoumice donesemo odluke o prioritetu i načinu tretmana povređenih u ovoj nesreći.
Ključne reči: Nesreća sa većim brojem povređenih, eksplozija, trijaža.

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Broj apstrakta: 004

SAOBRAĆAJNI TRAUMATIZAM/TRZAJNE POVREDE VRATNE KIČME

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SLUŽBA HITNE MEDICINSKE POMOĆI SA EDUKATIVNIM CENTROM JZU DZ BANJALUKA, REPUBLIKA SRPSKA

Uvod: Trzajna povreda vratne kičme (Whiplash injury), je traumatske prirode i definiše se kao ubrzavajuće - usporavajući mehanizam energije koja se prenosi na vrat, obično kao posljedica sudara motornih vozila, mada može nastati i kod padova i nekih sportskih aktivnosti. Sam termin se odnosi na naglu, prisilnu hiperekstenzijsko - hiperfleksijsku povredu vrata sa dominantnim povređivanjem mekih tkiva. Neophodan uslov za njen nastanak je prekomjerno savijanje vrata u nekom od fizioloških pravaca (napred - nazad, bočno i kombinovano).
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: Trzajna povreda vratne kičme, tretman. Pretraživanje je vršeno kroz: PubMed, Medline i dostupne elektronske časopise kao i raspoložive litrature
Rezultati sinteze: Uobičajni mehanizam nastanka trzajne povrede vratne kičme opisuje se kao udar jednog vozila u zadnji dio drugog vozila, mada može nastati i tokom čeonog sudara kao i udara u bočnu stranu vozila ili kombinacijom ovih mehanizama. Osnovni uslov za njen nastanak je da su glava i vrat slobodno pokretni. Može biti povrijeđen bilo koji putnik u vozilu, nebitno od pozicije. U slučaju da se povrijeđeni nalazi u zaustavljenom vozilu koje je udareno od pozadi, u trenutku udara vozilo dobija naglo ubrzanje ka naprijed a samim tim i tijelo uz minimalno kašnjenje takođe dobija isto ubrzanje. Nakon određenog intervala trup i ramena ubrzavaju ka naprijed što izaziva ugaoni pomak glave i vrata u odnosu na trup, pa se glava kreće nazad i dole a vrat dolazi u položaj hiperekstenzije sve dok njegove anatomske strukture ne pruže otpor. Nakon toga slijedi pokret glave ka naprijed pri čemu vrat dolazi u položaj hiperfleksije. Ove povrede nastaju usljed brzine i sile pokreta glave i vrata u odnosu na trup koje prevazilaze fiziološke mogućnosti paravertebralne muskulature jer amplituda pokreta se izvrši u kratkom vremenu u kojem nervni sistem ne stigne odreagovati pa je time i motorni odgovor nedovoljno efikasan. Pri dobroj kliničkoj orijentaciji pravovremena HMP je od važnosti za prevenciju mogućeg pogoršanja inicijalnog stanja povrede, pa se interveniše na licu mjesta tako što se vrši imobilizacija vratne kičme postavljanjem plastične vratne kragne (STIFNEK) i lateralne imobilizacije (LATERALNI STIFNEK) glave. Do pojave prvih simptoma može doći odmah ili nakon nekoliko časova. Najčešći simptom je bol u vratu ali se može javiti i glavobolja, bol u rameno-među-lopatičnoj regiji i bol u rukama. U ostale simptome spadaju: vrtoglavica, poremećaj vida, sluha, bol u donjeviličnim zglobovima, ukočenost vrata, umor. Ponekad

povređeni mogu biti psihički izmijenjeni zbog perzistentnosti tegoba. Ne postoji dijagnostički test za trzajne povrede. Dijagnoza se postavlja na osnovu anamneze, objektivnog kliničkog pregleda (ortoped, traumatolog, neurohirurg) i po potrebi se rade RTG, CT, NMR. Najveći broj povrijeđenih se liječi konzervativno kombinovanom terapijom: mirovanje, analgetici, vježbe za mišiće vrata bez imobilizacije vrata I i II stepena izuzev III stepena kada postoje neurološki ispadi (oslabljeni ili ugašeni duboki tetivni refleksi, mišićna slabost, senzitivni deficit) i to maksimalno 72 sata. IV stepen (prelomi ili luksacije vratne kičme) zahtijeva neurohirurški pristup liječenju uz fiksnu imobilizaciju.
Zaključak: Kod svih oblika saobraćajnih nezgoda te kod nezgoda pojedinih sportskih aktivnosti treba uvijek misliti da može doći do ovakvog oblika povrede te preventivno djelovati na licu mjesta u smislu pravilne imobilizacije vratne kičme te adekvatnog transporta u odgovarajuću zdravstvenu ustanovu.
Ključne reči: Trzajna povreda vratne kičme

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PRIKAZ PACIJENTA SA AIM I NETIPIČNIM SIMPTOMIMA

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Uvod: Akutni infarkt miokarda (AIM) nastaje kao posledica stvaranja tromba u arteriji koja hrani jedan deo srčanog mišića. Zbog formiranja tromba i zatvaranja lumena arterije, dolazi do prestanka cirkulacije, razvija se ishemija a zatim i nekroza tog dela srca. Ukoliko se ne reaguje brzo i adekvatno mogu se javiti maligni poremećaji srčanog ritma koji se u jednom broju slučajeva (ne malom) završavaju i smrtnim ishodom. Prepoznavanje simptoma AIM i brz medicinski tretman su ključni elementi preživljavanja ovih pacijenata.
Materijal i Metoda: Prikaz slučaja retrospektivnom analizom dostupne medicinske dokumentacije.
Prikaz slučaja: Dana 02.02.2017, u HMP dolazi pacijent u pratnji svog sina. Kako je ispred lekarske ambulante na pregled čekao veliki broj osoba, (sezona gripa), rodbina samoinicijativno bez prethodnog pregleda uvodi pacijenta u sobu za opservaciju zahtevajući da lekar dođe. Iako sestra za opservaciju ima prava do uputi pacijenta u ambulantu, opšti utisak koji je bolesnik odavao bio je da se možda radi o urgentnom pacijentu. Od rodbine dobija podatak da je prethodnog dana imao temperaturu, ali da je sada nema. Uprkos tome što nema temperaturu pacijent se profuzno znojio a od tegoba je navodio da ima mučninu, nesvesticu i da mu je jako loše. Sestra za opservaciju odlučuje da pošalje mlađu koleginicu da pozove lekara a pacijenta smešta u krevet i odmah ga postavlja na monitor. Do dolaska lekara (koji je prvo završio započeti pregled u ambulanti) ona priprema pacijenta. Meri vitalne parametre i radi ECG. Dobija sledeće vitalne parametre: TA 100/60mmHg; SF; RF18/min; ŠUK 7,2mmol/L, $SpO_2$94%. U toku svih ovih postupaka, uzima i kratku anamnezu. Saznaje da ima tegobu u grudima poslednjih 30 min., boluje od hipertenzije i redovno uzima lekove, da je povraćao 1 i to hranu, vidno je uznemiren i uplašen. Ubrzo dolazi lekar i u suštini dobija dobro pripremljenog pacijenta. Na ECG-u se vide sledeće promene: AF, elevacija ST u D1, D2, aVL, V1-V6. Lekar započinje terapiju: tlb Andol 300mg PO, Amp Fentanyl ½; Amp Klometol, amp Ranisan, tbl Brilique 90 No II, Clexane 0,3 IV, sol NaCL 500ml,
Zaključak: Uloga edukovanje medicinske sestre u zbinjavanju pacijenta sa AIM je od neprocenjive važnosti za timski rad u urgentnim službama zdravstvenog sistema.
Ključne reči: AIM, netipični simptomi, medicinska sestra

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AKUTNO PLUĆNO SRCE

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Uvod: Plućno srce je sekundarno povećanje i oštećenje desnog srca nastalo zbog razvoja plućne hipertenzije. Akutno plućno srce (APS) se definiše kao: Akutna insuficijencija desne komore nastala zbog naglog skoka pritiska u plućnoj arteriji usled značajne redukcije plućne vaskularne mreže. U odsustvu predhodnih bolesti pluća i srca potrebno je da redukcija iznosi preko 60% funkcionalnog plućnog krvotoka.
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: akutno plućno srce. Pretraživanje je vršeno kroz: PubMed, Medline i dostupne elektronske časopise kao i raspoložive literature.
Rezultati sinteze: APS je gotovo uvek rezultat masivne plućne embolije. Izuzetno retko uzroci su: aneurizma aorte, masivna atelektaza pluća i tumor medijastinuma. APS često nastaje iz, naoko dobrog zdravlja, sa vrlo teškom kliničkom slikom koja se često završava smrću. Najčešće nastaje kao posledica začepljenja ugruškom, jednog ili više ogranaka plućnih arterija uz propratni vazospazam. Najčešće je posledica tromboze dubokih vena nogu ili male karlice a može doći i iz desnog srca. Tromboza dubokih vena nogu najčešće nastaje nakon hiruških zahvata zbog bolesnikovog mirovanja i zastoja venske krvi. Česta je kod bolesnika sa srčanom insuficijencijom kao i kod onih sa CVI. Može nastati u trudnoći, kod bolesnika sa malignim bolestima, kod gojaznih i kod žena na oralnim kontraceptivima i korišćenje cigareta. Znatno ređe su uzroci: plodova voda, vazduh, masti, paraziti, tumorske ćelije ili strana tela. Mehaničko začepljenje plućnog krvotoka može biti različitog stepena i lokalizacije. Kod fulminantnih formi koje se završavaju trenutnom smrću dolazi do potpune okluzije glavnog stabla plućne arterije. Kod ostalih masivnih plućnih tromboembolija radi se o nepotpunoj okluziji iste lokalizacije a najčešće o obostranoj embolizaciji većih ogranaka plućne arterije. Kod rekurentnih treomboembolija i kod osoba koje su imale teže oboljenje srca i pluća tromboembolija ne mora biti masivna da bi dovela do APS. Simptomi zavise od veličine krvnog suda zahvaćenog embolusom. Pri masovnoj plućnoj emboliji bolesnik je bled, zatim postaje cijanotičan, ima bronhospazam, bol u grudima, dispnoja, razvija se akutno plućno srce i slika kardiogenog šoka. Embolije velikog ogranka plućne arterije daju infarkt pluća a javljaju se tahikardija, tahipnoja, nemir, bol u grudinma, pleuralna bol, kašalj i hemoptizija, a temperatura se može povisiti na 38C. Pri emboliji manjeg ogranka plućne arterije simptomi su tahikardija i tahipnoja. Kussmaulov znak, (porast jugularnog pritiska pri udisaju) i paradoksalni puls (sniženje ili nestanak pulsnog talasa u inspirijumu). Prvi korak u terapiji je reanimacija vitalnih funkcija disanja, cirkulacije i borba protiv šoka. Analgetik izbora je Morfin 10-15 mg SC. Odmah se daje i Aminofilin 250 mg IV i kiseonik tako da se parcijalni pritisak O_2 drži na normali, obično oko 6-8 l/min. Nakon uspostavljanja venske linije dajemo tečnost radi povećanja plućnog protoka a time i bolje oksigenacije. Kod pacijenata sa hipotenzijom putem infuzije dati vazopresorne inotropne agense (dopamin) a ukoliko stanje progredira ka šoku dati visoke doze kortikopreparata.
Zaključak: Pri svakoj nejasnoj tahikardiji ili tahipnoji treba pomisliti na plućnu emboliju kao i kod bolesnika kod kojih se srčana insuficijencija pogoršava bez vidljivog razloga..
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TRIJAŽA U SLUŽBI URGENTNOG PRIJEMA

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ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Zbog povećanja broja pacijenata, povećanja zahteva i složenosti medicinske nege, odeljenja i službe urgentnog prijema suočena su s problemom preopterećenosti. Stoga se kao rešavanje problema nameće nužnost definisanja procesa rada u odeljenjima urgentnog prijema.
Izvor podataka i izbor materijala: Retrospektivna analiza literature sa odrednicama: trijaža, urgentni prijem, preopterećenost. Pretraživanje je vršeno kroz: PubMed, Medline i dostupne elektronske časopise kao i raspoložive litrature
Rezultati sinteze: Rad u Službi urgentnog prijema započinje trijažom. Osnovna svrha trijaže je kategorizacija pacijenata po hitnosti. Trijažna kategorizacija omogućuje i osigurava ispravnu i pravovremenu procenu svih pacijenata koji dolaze u Službu urgentnog prijema. Pri tome trijažne kategorije određuju redoslijed zbrinjavanja i na najmanju moguću meru smanjuju mogućnost incidentnih događaja. Savremene trijažne skale zasnivaju se na skali od 5 trijažnih kategorija:
Odmah po život opasna stanja (kategorija 1); Ubrzo po život opasna stanja (kategorija 2); Potencijalno po život opasna stanja ili važna vremenski kritična obrada i terapija ili jaka bol (kategorija 3); Potencijalno po život ozbiljna stanja ili situacijska hitnost ili značajna složenost (kategorija 4); i Manje hitno (kategorija 5). Najpoznatije i najčešće korišćene trijažne skale su Australian Triage Scale (ATS), Canadian Emergency Department Triage and Acuity Scale (CTAS), Manchester Triage Scale (MTS), and Emergency Severity Index (ESI) imale su veliki uticaj na razvoj modernog pristupa trijaži. Druge trijažne skale, npr.Soterion Rapid Triage Scale (SRTS), 4-level Taiwan Triage System (TTS) nisu ostvarile veći uticaj ni na istraživače ni na osoblje koje bi trebalo da ih primenjuje. Kao podrška radu osoblja službi urgentnog prijema, poželjno je imati jasno istaknuta uputstva za pacijente o trijažnim kategorijama. Sestrinske intervencije na trijaži:

- ne smeju odlagati lekarski pregled
- moraju biti u dogovoru s pacijentom i pratnjom
- moraju osigurati privatnost pacijenta
- moraju biti jasno objašnjene pacijentu
- moraju biti dokumentovane
- moraju biti u skladu sa organizacijskim smernicama trijaže.

Primeri sestrinskih intervencija za početno zbrinjavanje pacijenata prilikom trijaže:

- sestrinska amamneza
- određivanje vitalnih parametara (TA, TT, respiratorna frekvencija, saturacija kiseonika)
- izrada EKG zapisa
- primena osnovnih postupaka održavanja života (BLS)
- primena kiseonika
- određivanje ŠUK-a
- uzimanje krvi za laboratorijske pretrage
- imobilizacija povređenog ekstremiteta
- uspostavljanje iv. pristupa
- zbrinjavanje rane (zaustavljanje krvarenja).

Medicinska sestra trijaže mora ponovo proceniti sve pacijente u čekaonici nakon što je isteklo predviđeno vreme čekanja za određenu trijažnu kategoriju. Ponovna trijaža uvijek mora biti upisana u pacijentov (elektronski) karton.
Zaključak: Imajući u vidu preopterećenost (OWERCROWDING) kao jedan od većih problema hospitalnih jedinica urgentnog prijema i urgentnih centara uopšte, definisanje procesa rada, uvođenje jasnih i jednostavnih procedura olakšaće rad i snalaženje osoblja u uslovima preopterećenosti. Takođe, sprovođenje edukacije građanstva - kada koji resurs zdravstvene zaštite koristiti, kako bi se smanjio pritisak kako na Službu hitne pomoći, tako i na hospitalne jedinice urgentnog prijema, umnogome bi poboljšalo uslove za rad i omogućilo kvalitetniji i smireniji pristup svakom pacijentu ponaosob.

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Ključne reči: trijaža, urgentni prijem, preopterećenost

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DA LI JE OVO BUDUĆNOST ZA CPR?

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Uvod: Kada srce prestane da kuca, šansa za preživljavanje pada 7- 10% za svaki minut, dok defibrilator ne isporuči strujni udar, koji može ponovo da pokrene srce. Ali, reakciono vreme tima hitne medicinske pomoći je u proseku 5-10 min u gradovima i često više od 20 min u ruralnim sredinama, što znači da vatrogasci i timovi hitne medicinske pomoći, koji imaju defibrilatore, često stižu prekasno. Postavljanjem automatskih externih defibrilatora (AED) ovaj problem je samo donekle prevaziđen. Upravo zbog toga nauka i tehnologija i dalje tragaju za rešenjem.
Materijal i metode: Retrospektivna analiza literature sa odrednicama: novine u CPR, tehnička dostignuća, dron. Pretraživanje je vršeno kroz: PubMed, Medline i dostupne elektronske časopise kao i raspoložive literature.
Rezultati sinteze: Po podacima iz literature samo u Evropskoj Uniji, manje od 10% od 800.000 godišnjih slučajeva srčanog udara preživi. Ali, ako defibrilator stigne u roku od dva minuta, šanse za preživljavanjem rastu i do 80%. Zato je urađen prototip drona za hitnu medicinsku pomoć koji može da isporuči defibrilator u širini od 12 kvadratnih kilometara za manje od dva minuta. Karakteristike prvog drone osmišljenog i izrađenog u Holandiji za potrebe HMP su: Troškovi: $5.280 (prototip). Konačni model: $ 15,828 Maksimalna brzina: 100 km/h, Težina: 4 kg, kapacitet nošenja: 6kg. Reakciono vreme: 12 km2 površine u roku od dva minuta. Maksimalno vreme leta: 15 min. Dron ne leti sam po sebi. Osoba koja upravlja njim ostaje u bazi, medicinski je kvalifikovana i ima zadatak da pošalje dron na hitan poziv. Kamera je ugrađena na prednjoj strani drone i omogućava povratnu informaciju kako bi se pronašao cilj pomoću GPS. Nakon dolaska do pacijenta, pilot/lekar kaže prisutnima šta da rade, koristeći kameru kako bi kontrolisao da li su papučice za defibrilator bile pravilno postavljene. Takođe, kontrola isporučivanja DC šoka je moguća preko kamere. Dron koji bi mogao da locira davljenika i dostavi mu pojas za spašavanje je takođe u planu izrade. Najveći kamen spoticanja do konačne upotrebe drona je državna regulativa. mada se veruje da dronovi za hitnu pomoć imaju dobre izglede za dobijanje dozvola. U Kanadi je na Univerzitetu u Torontu rađeno ispitivanje gde je u 81 bazi postavljeno 100 drona u 8 opština Toronta. Njihova ispitivanja pokazuju da se vreme dostave defibrilatora smanjilo za 50% u 90% slučajeva srčanog zastoja.
Zaključak: Kako bi prof Đuro Koruga rekao “Ovo mešanje tehnologije i medicine objašnjava se stavom da je "medicina bez tehnike slepa, a tehnika bez medicine nemoćna"
Ključne reči: dron, defibrillator, cpr

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OKSIGENOTERAPIJA KAO URGENTNA PROCEDURA

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ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Aplikacija kiseonika je verovatno jedna od najčešćih medicinsko-tehničkih radnji sa kojima se susrećemo u svakodnevnom radu. No, samo adekvatno indikovan i adekvatno

aplikovan kiseonik može biti od koristi, dok, nasuprot, nepoznavanje indikacija i postupka aplikacije može biti opasno pa čak i fatalno po pacijenta.
Metode: Pretraga dostupnih literaturnih izvora
Rezultati: Oksigenoterapija samo naizgled predstavlja jednostavnu medicinsko-tehničku radnju, i predstavlja mnogo više od običnog otvaranja boce i aplikovanja kiseonične maske. Poznavanje opreme i načina aplikacije osnova su uspešne oksigenoterapije.
Oprema: Kiseonične boce su različite zapremine, za fiksne sisteme od 7 – 10 - 20 litara (većinom 10 litarske), dok se za prenosne sisteme se koriste manje boce od 1 do 3 litra (zavisno od proizvođača). Boce se pune na oko 50–60% maksimalne testirane vrednosti pritiska. Pritisak kiseonika u boci vidimo na manometru, koji uz redukcioni ventil, ima funkciju smanjenja izlaznog pritiska na oko 4-6 bara, kako bi njegova primena bila moguća.
Indikatori protoka: Thrope (model s kuglicom u prozirnom plastičnom cilindru), Burdon (stoji iza manometra i redukcijskog ventila), ventil sa fiksnim protokom kisika (nema indikatora)- protok je moguće namestiti od 2–15 l/min. Za aplikaciju niske koncentracije kiseonika služe nazalna kanila i standardna maska za kiseonik. Nazalna kanila - prednost je što ne smeta pacijentu, a nedostatak je da nije moguća aplikacija visoke koncentracije kiseoika (duža aplikacija >4L/min da iritira nazofarinks). Najmanja količina kiseonika koju možemo aplikovati kod maske je 6L/min. Ta količina dovoljna zameni rezidue izdahnutog vazduha koji se nalazi u maski. Problem te maske je da pacijent diše u nju i dotok kiseonika mora biti toliki da uspe dovoljnu količinu izdahnutog vazduha izbaciti iz maske pre sledećeg udaha. Za aplikaciju srednje koncentracije kiseonika služe nam Venturi maska (uz masku postoji sistem raznobojnih ventila na svakome od kojih piše koliko L/min kiseonika možemo dati pacijentu). Za aplikaciju visoke koncentracije kiseonika služi maska sa rezervoarom sa nepovratnim ventilima (OHIO maska) - nudi oko 95% kiseonika pri udahu. Simptomi hipoksije su: dispneja, tahipneja, ortopneja. A znaci: uznemirenost, konfuzija, letargija, sopor, koma, periferna vazokonstrikcija,cijanoza, razne vrste aritmija, mučnina. Merenje oksigenacije se vrši– pulsnom oksimetrijom, ispod 94% je patološka. Boce moraju biti na svom mestu, pričvršćene, čiste; ventili zaštićeni sigurnosnim kapama; nakon aplikacije kiseonika isti ispusti iz sistema, kako pritisak ne bi oštetio ventilne sklopove. Prazne boce se moraju čuvati odvojeno od punih. Boce se nikada ne prazne do kraja, već do oko 20 bara.
Zaključak: Iako u svakodnevnom radu upotreba kiseonika predstavlja jednu od lakših medicinsko-tehničkih radnji, neophodno da dobro poznajemo svaku komponentu ove terapije. I kao i svaka terapija – i ova može imati i svoje neželjene efekte.

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INTRAOSEALNI PUT ADMINISTRACIJE LEKOVA KAO REŠENJE PROBLEMATIČNIH SITUACIJA

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ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Obezbeđenje venske linije jedna je od osnovnih veština u domenu medicinske sestre-tehničara. U toku KPCR to predstavlja neophodni postupak, jer se svi lekovi daju intravenski (I.V). Pored intravenskog, postoje i alternativni putevi davanja lekova kod vitalno ugroženih pacijenata - endotrahealni i intraosealni (IO) put.
Cilj rada je razmatranje alternativnih puteva za administraciju lekova u hitnim stanjima.
Metoda: Pregled literature
Rezultati: IO infuziju tečnosti preko sternuma su prvi predložili Drinker i kolege 1922. Upotreba IO puta za primenu tečnosti, lekova, i proizvoda od krvi postala relativno česta u 1930 i 1940. American Heart Association (AHA) je 1986. godine odobrila upotrebu IO puta za administraciju tečnosti i lekova tokom pedijatrijske reanimacije. U smernicama pedijatrijske osnovne i

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napredne životne potpore 2005, AHA i Međunarodni komitet za vezu za reanimaciju (ILCOR) su ponovili preporuku za utvrđivanje IO pristupa ako vaskularni pristup ne bude postignut kod beba ili dece gde se zahteva brz pristup za davanje IV lekova ili tečnosti.Osnovna prednost IO puta je lakoća sa kojom se može dobiti pristup vaskularnom koritu. Pokazalo se da obučen zdravstveni radnik može postići IO pristup unutar 1-2 minuta, uz uspešnost od 80% ili više.
Koštana srž dugih i pljosnatih kostiju predstavlja splet nekolabiranih vena, ne samo kod dece, već i kod odraslih. Kroz njih se mogu primenitii lekovi, anestetici, kristaloidi, koloidi, krv i derivati, ali i uzeti krv za analize, krvnu grupu, acido-bazni status. IO pristup je kontraindikovan kod pacijenata sa prelomom kosti na mestu pristupa, kod pacijenata sa celulitisom ili opekotinama, kod povreda donje šuplje vena, kod određenih bolesti kostiju, kao što je osteogenezis imperfekta ili osteoporoze. Pravilo je da treba napraviti samo jedan pokušaj obezbeđivanja IO puta u jednoj kosti. IO put se smatra "nekolabirajućom venom". Mnoštvo tečnosti, uključujući dekstrozu, kristaloide, HAES, kao i većina lekova koji se koriste u CPR može biti davana putem IO pristupa koristeći standardne IV doze. Bolus davanje lekova može dovesti do "depo" efekta, gde lek ostaje u medularnoj šupljini duže vreme i rezultira nižim serumskim koncentracijama lekova i dužim vremenom distribucije lekova u odnosu na IV administraciju. Kašnjenje u distribuciji lekova može se nadoknaditi davanjem male količine (3-10 mL) fiziološkog rastvora posle davanja leka. Za kontinuirane infuzije, preporučje se upotreba infuzione pumpe radi održavanja odgovarajuće stope isporuke leka.
Zaključak: Obuka za obezbeđivanje IO puta, kao i nabavka odgovarajućih setova predstavlja još jedno oružje u arsenalu osoblja u službama urgentne medicine, kako prehospitalnih, tako i bolničkih službi.
Ključne reči: intraosealni put, alternativni put

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ZNAČAJ RADA MEDICINSKE SESTRE U OPSERVACIONOJ JEDINICI SLUŽBE ZA URGENTNI PRIJEM

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ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Termin opservacija obuhvata u celini grupu veština u sestrinskom radu. Opservacija je najvažniji deo uspešne nege i sadrži sva sredstva, sve aktivnosti i sve mere u nezi bolesnika. Ona treba da omogući da se što pre ustanovi dijagnoza, da se omogući pravilna nega i da se pomogne drugim radnicima u njihovom radu sa bolesnikom.
Metode: Retrospektivni prikaz rada opservacione jedinice Službe za prijemi zbrinjavanje ZC Zaječar
Rezultati: Posmatranje bolesnika jedan je od osnovnih zadataka medicinske sestre u zdravstvenoj nezi. Simptomi mogu biti: subjektivni (npr. bol, pri čemu bolesnik opisuje lokalizaciju i radijaciju, kao i karakter i intenzitet bola), funkcionalni (poremećena funkcija obolelog organa). Takvi simptomi su npr. dispneja, disfagija i opšti (gubitak apetita, osjećaj slabosti, malaksalost i dr.). Postoje specifični znaci - vitalni parametri koji su neposredni pokazatelji: telesna temperatura, puls, respiracija i krvni pritisak. Zadaci medicinske sestre koja vodi brigu o pacijentima na opservaciji su mnogobrojni, složeni i veoma odgovorni - informisanje o stanju pacijenata, briga o stanju vitalnih parametara, briga o bezbednosti pacijenata, učestvovanje u monitoringu, planiranju i specifičnom medikamentoznom tretmanu, uzimanje biološkog materijala i njegova priprema za dalju obradu, vođenje odgovarajuće dokumentacije o pacijentima, komunikacija sa pratiocima i pružanje neophodnih informacija lekaru u smeni o stanju pacijenata na opservaciji. Služba za prijem i zbrinjavanje urgentnih stanja u Zaječaru u tri opservacione jedinice raspolaže sa 8 kreveta. U ispitivanom sedmomesečnom periodu (septembar 2016-mart2017) opservirano je prosečno u dnevnoj

smeni 41,4% pacijenata koji su se sami javili ili bili upućeni zbog različitih tegoba. U istom periodu iz dnevne smene na dalji hospitalni tretman upućeno je 33% pacijenata. U noćnoj smeni procenat opserviranih pacijenata raste na 51,2%, dok je na dalji hospitalni tretman upućeno 23,7%. U jednoj dvanaestočasovnoj smeni radi jedan lekar i dve medicinske sestre/tehničara, te je rad medicinske sestre u opservacionoj jedinici od ogromnog značaja, jer je dobro informisana sestra velika pomoć lekaru.
Zaključak: Rad u Službi urgentnog prijema podrazumeva visoko integrativnu sposobnost medicinske sestre, koja se najbolje pokazuje u najtežim situacijama, kad je brzina jedan od presudnih faktora u očuvanju ljudskog života. Zato se i edukacija osoblja jedinica urgentne medicine mora usmeriti ka specifičnim zadacima – brzog prepoznavanja kritičnih stanja i hitnog delovanja na smiren, usmeren i svrsishodan način.
Ključne reči: opservacija, medicinska sestra

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POSTUPCI ZA OSLOBAĐANJE DISAJNOG PUTA U DOMENU MEDICINSKE SESTRE/TEHNIČARA

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ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Brzo i sigurno uspostavljanje i osiguravanje prohodnosti disajnog puta je preduslov za uspešno zbrinjavanje kritično obolelog bolasnika kao i kritično povređene žrtve. Pojedina istraživanja ukazuju na visok stepen grešaka prilikom uspostavljanja prohodnosti disajnog puta kao i veliki broj komplikacija prilikom obezbeđenja disanja. Medicinka sestra/ tehničar u toku procesa zbrinjavanja kritičnog pacijenta ima za zadatak i odgovornost da obezbedi privremeno ili definitivno disajni put pacijenta.
Materijal i metode: Retrospektivna analiza literature sa odrednicama: disajni put, procedure obezbeđenja disajnog puta, uloga medicinske sestre. Pretraživanje je vršeno kroz: PubMed, Medline i dostupne elektronske časopise kao i raspoložive literature.
Rezultati sinteze: Postupci za oslobađanje disajnog puta za koje ima obavezu da ih zna i primenjuje medicinska sestra su: Zabacivanje glave-podizanje brade; Trostruki zahavat; Inspekcija usne šupljine; Orofaringealni airway; Ventilacija maska-balon, alternativne metode-korišćenje supraglotičkih sredstava (LMA, Laryngelana tuba, Kombi tuba ..). Za obezbeđenje disajnog puta, nezavisno od situacije i pacijenta postoje 3 osnovna pravila kojih se treba pridržavati. *Pravilo broj 1:* Uvek proveriti svu dostupnu opremu na početku smene (da li ima opreme, brojno stanje, ispravnost, dostupne veličine, konektori ..i sl.); *Pravilo broj 2:* u obezbeđenju disajnog puta početi uvek sa najjednostavnijom metodom s kojom je moguće rešiti problem. Često, najjednostavnija procedura reši postojeći problem. Poznato je da što je procedura jednostavnije i komplikacije i greške su manje. Ovo pravilo omogućava i sistematizaciju u redu postupaka a time i brže donošenje odluka. *Pravilo broj 3:* uvek prvo pokušati proceduru koju najbolje poznaješ, tj za koju si edukovan i utreniran. Često se neke procedure u procesu edukacije upoznaju, ponekad i nauče (na jednodnevnim kursevima), međutim, vladanje nekom veštinom zavisiće i od iskustva, odnosno prilika da se te procedure izvode redovno. Ova tri pravila u obezbeđenju disajnog puta mogu se odnositi i na neke druge urgentne procedure i treba ih razmotriti u svakoj proceduri posebno.
Zaključak: Medicinska sestra/tehničar se u toku zbrinjavanja kritičnog pacijenta sreće sa potrebom da obezbedi i održava disajni put. Poštovanje određenih pravila u procesu izvođenja ove veštine umnogome olakšava izvođenje iste.**Ključne reči:** obezbeđenje disajnog puta

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ALKOHOLISANI PACIJENT-PROBLEMATIČAN PACIJENT U SLUŽBAMA ZA PRIJEM URGENTNIH STANJA

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ZC ZAJEČAR, SLUŽBA ZA PRIJEM I ZBRINJAVANJE URGENTNIH STANJA

Uvod: Alkohol spada u grupu psihoaktivnih supstanci koja unošenjem u organizam menja psihičku strukturu-utiče na raspoloženje, mišljenje i ponašanje. Po svojoj strukturi spada u depresore centralnog nervnog sistema. Svojim delovanjem snižavaju nivo funkcionisanja delova mozga ili mozga u celini. U populaciji mladih u našoj zemlji u poslednjoh deceniji alkoholizam dobija takve razmere da postaje „zadatak broj jedan“ za prevenciju i očuvanje zdravlja mladih.
Metod: Retrospektivna analiza literature sa odrednicama: alkoholizam, problemi alkoholizma prijemna odeljenja. Pretraživanje je vršeno kroz: PubMed, Medline i dostupne elektronske časopise kao i raspoložive literature.
Rezultati sinteze: Alkoholisanost je čest uzrok za prijem u Službama za prijem urgentnih stanja Opštih bolnica. Osim prijema samo zbog alkoholizma, alkoholizam je i neizbežno dodatno stanje kod mnogih drugih patologija pre svega traume (akcidentalne povrede i samopovređivanje), trovanja lekovima, psihičke izmene, agresivnost...U ne malom broju slučajeva imaju i sudsko medicinski značaj. Učestalost javljanja alkoholisanih osoba vremenski varira. Najčešće se javljaju noću, vikendom, u vreme državnih i verskih praznika, proslava matura. Pacijenti se najčešće javljaju zbog kratkoročnih efekata alkohola. Simptomi i znaci zbog kojih bivaju tretirani su: poremećen rad želudca, osećanje mučnine ili vrtoglavice, povraćanje, glavobolja, hipoglikemija, gubitak svesti. Zloupotreba alkohola može prouzrokovati različite dugoročne probleme jer je zahvaćen ceo organizam. Neki od ovih problema mogu dovesti do smrti. Bolesti uzrokovane alkoholom ili povezane sa njim su: visoki krvni pritisak, srčana insuficijencija, edem pluća, oštećenje jetre, hepatitis, ciroza, čir na želudcu i duodenumu. Psihički poremećaji: problemi sa pažnjom, učenjem i pamćenjem, depresija, promene raspoloženja, anksiozni poremećaji, nesanica, neuhranjenost, impotencija kod muškaraca a žene koje piju tokom trudnoće imaju veće šanse za pobačaj. Alkoholisani pacijent u Službi za prijem urgentnih stanja u Opštim bolnicama osim što mora biti adekvatno dijagnostički i terapijski tretiran, osoblju odeljenja može izazvati i niz nemedicinskih problema. Ukoliko su svesni, veoma često zahtevaju posebnu pažnju, galame, bivaju neprijatni pa i agresivni prema osoblju. Često je potrebno da budu i na neki način obezbeđeni od samopovređivanja ili agresivnosti prema drugim osobama. Ukoliko su bez svesti, potrebno je da budu na stalnom monitoringu a u higijenskom pogledu takođe zahtevaju posebno angažovanje (uklanjanje povraćajnog sadržaja, urina i fecesa)
Zaključak: Akutni i hronični alkoholizam je često patološko stanje koje biva tretirano na prijemnim odeljenjima, donosi sa sobom i veliki broj nemedicinskih problema. Zbrinjavanje takvih pacijenata mora biti adekvatno i pažljivo bez obzira na probleme koje mogu da uzrokuju svojim boravkom na odeljenju.

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ZDRAVSTVENA NEGA POLITRAUMATIZOVANIH PACIJENATA U URGENTNOM CENTRU KCS

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KLINIKA ZA URGENTNU HIRURGIJU URGENTNOG CENTRA KCS, BEOGRAD,SRBIJA

Uvod. Trauma je akutno oštećenje organizma delovanjem spoljašnje sile sa razaranjem tkiva i pratećim funkcionalnim poremećajem. Politraumatizovani pacijenti predstavljaju značajnu populaciju hitnih i potencijalno životno ugroženih, a poznavanje kompleksnog dijagnostičko-terapijskog pristupa teško povređenih pacijenata jedna je od najaktuelnih savremenih tema za medicinske radnike svih profila. Zlatno pravilo je hitno zbirnjavanje povređenog od momenta

povređivanja u period "zlatnog sata". U cilju podizanja stope preživljavanja i smanjenja komplikacija kod politraumatizivanih pacijenata neophodno je poznavanje savremenih algoritama za lečenje teško povređenih pacijenata. Lečenje politraumatizovanog pacijenta zahteva znanje i veštinu, a podrazumeva timski rad, od mesta povrede, do zbrinjavanja i definitvnog lečenja u visoko specijalizovanom ustanovima sa multidisciplinarnim pristupom povređenom.

Ciljevi rada: 1.Prikaz standardnih procedura u zbrinjavanju teško povređenih**;** 2.Prikaz zdravstvene nege i sestrinskih aktivnosti u svim fazama lečenja; 3.Analiza politraumatizovanih pacijenata u intenzivnoj nezi UC prema demografskim podacima,prema tipu i mehanizmu povređivalja, prema težini i vrsti povrede, prema vrsti i ishodu lečenja, dužini lečenja,

Metodologija rada: Vreme i mesto istraživanja Istraživanje je izvršeno u Urgentnom centru,odeljenje centralne intenzivne nege,od 1.1.2012.-31.12.2016.godine.

Podaci su obrađeni metodama deskriptivne i analitičke statistike, i prikazani tabelarno i grafički. Izvor podataka su bili knjiga protokola,istorija bolesti

Uzorak su pacijenti lečeni u intenzivnoj nezi

Zaključak. Na osnovu dobijenih rezultata istraživanja, izvučeni su sledeći zaključci:

Prema sociodemografskim karakteristikama politraumatizovanih pacijenata na odeljenju intenzivne nege Urgentnog centra KCS-, najviše povređenih je bio muškog pola i uzrasta od 20-29 godina.Prema mestu i vremenu povređivanja najviše ih je imalo nezgodu u unutrašnjosti, i većinom transportovani u Urgentni centar tokom noći; Prema tipu i mehanizmu povređivanja najviše politraumatizovanih pacijenata je bilo sa dominantnom povredom glave i povređenih u saobraćajnom udesu Prema ishodu politraumatizovani pacijenti – najviše njih je preživelo povređivanje.

Ključne reči: nega politraumatizovanih pacijenata

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