

ORAL PRESENTATION ABSTRACTS

Oral Abstract Presentations 1
12:00-13:00, 27 May

001 Machine Learning Models for Predicting Unscheduled Return Visits to the Emergency Department: A Scoping Review

Y.C. Lee¹, S.Y. Chen¹

¹Linkou Chang-Gung Memorial Hospital, Emergency medicine, Taoyuan, Taiwan R.O.C.

Background

Reducing unnecessary emergency department (ED) revisits is crucial in addressing ED crowding. Artificial intelligence(AI) and machine learning (ML) has shown promise in accurate predictive modelling for identifying high-risk patients. However, research on ML-based prediction of ED revisits is limited and lacks consistency in methods and patient populations. This scoping review aims to compare the predictive power of different ML models, investigate the impact of research differences on model performance, and explore the clinical applicability of AI predictions for unscheduled return visits (URV) in ED.

Material and methods

We conducted a scoping review of studies related to ML models in predicting URV. Five databases were systematically searched for studies published from 2010 to 2022 on ML in predicting URV to the ED. Articles were reviewed, and the full texts of selected studies were screened against eligibility criteria. The primary outcome is the predictive power of ML models, the data were extracted, and a narrative synthesis was completed.

Results

A total of 582 articles were identified through the search, with 14 articles selected for detailed analysis. These studies were conducted in various countries, including the USA, Taiwan, Singapore, the United Kingdom, and Portugal. Sample sizes ranged from 200 to 1,200,000 individuals. The most commonly used models were Logistic Regression (LR) and Extreme Gradient Boosting(XGB), with evaluation metrics including area under curve (AUC), sensitivity, specificity, and c-statistics. Model performance assessment showed the dominant accuracy in almost all studies is around 0.75, regardless of patient populations, research scales, or time

intervals.

Study Year	Country	Research Design	Subgroup	Sample Size	Report period	Machine Learning Model	Accuracy	Variables
Lawler et al. 2012	USA	Single center	Retrospective	88,261	May 1 2010 to December 31 2010	ML model	0.82	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Reyes et al. 2014	USA	Multi-center	Retrospective	100,000	March 2010 to July 2017	LR model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Reich et al. 2018	USA	Multi-center	Retrospective	51,341	2010	LR model	0.77	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Ng et al. 2019	USA	Single center	Retrospective	200,000	January 2010 to December 2012	ML model	0.80	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Yamamoto et al. 2021	USA	Single center	Retrospective	70,000	2010 to 2020	LR model	0.75	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Reyes et al. 2014	USA	Multi-center	Retrospective	1,100,000	2010 to 2014	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Lim et al. 2014	USA	Multi-center	Retrospective	200	2010	ML model	0.75	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Reyes et al. 2017	Taiwan	Multi-center	Retrospective	125,000	1998 to 2009	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Chen et al. 2021	Taiwan	Multi-center	Retrospective	49,222	1998 to 2018	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Reyes et al. 2022	Taiwan	Multi-center	Retrospective	300,000	January 2010 to 11 December 2018	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Chen et al. 2022	UK	Single center	Retrospective	40,000	1/1/2010 to 31/12/2020	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Morales et al. 2018	Portugal	Single center	Retrospective	615,100	2010 to 2018	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Morales et al. 2019	Portugal	Single center	Retrospective	100,000	January 2010 to 11 December 2018	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality
Reyes et al. 2022	Portugal	Multi-center	Retrospective	200,000	2010 to 2019	ML model	0.78	Age, sex, race, insurance, comorbidities, ED visits, hospitalizations, mortality

Conclusions

This study is the first to summarize the use of machine learning for predicting URVs in ED patients. Linear regression (LR) is commonly used in clinical practice, but nonlinear models like Random Forest (RF) and XGBoost (XGB) were preferred due to their robustness and performance with imbalanced data. Limitations of the predictive power of ML models include the lack of subsequent outcome information and the reliance on quantitative data alone, which may not capture images or text records. The applicability of machine learning in emergency clinical settings is still debatable due to its current limit of accuracy. Future research should refine modelling and consider the impact of different clinical presentations and settings on URV prediction performance.

002 Assessment of the diagnostic accuracy of lung ultrasonography for COVID-19 pneumonia.

D. Karan¹, F. Karbek Akarca¹, Ö. Can¹, Ş. Mıdık¹

¹Ege University, Emergency Medicine, İzmir, Turkey

Background

We designed a study to analyse ultrasonographic findings of COVID-19 pneumonia in patients with shortness of breath who presented to the emergency department. The aim of our study was to determine the diagnostic sensitivity of ultrasonography

Material and methods

Using lung ultrasonography (LUS), we prospectively evaluated 258 patients over 18 years of age who presented with shortness of breath and suspected COVID-19 pneumonia between March 2021 and March 2022. Patients with LUS scores of 2 and 3 were diagnosed with COVID pneumonia. We also evaluated pathological findings thorax computed tomography (CT) to confirm the presence of pneumonia.

Results

The study included 239 patients who received thorax CT and underwent lung ultrasonography. We detected COVID-19 pneumonia in 58.1% of the patients on CT. Among the patients with a final diagnosis of COVID-19 pneumonia, 87.8% were classified as high probability and 12.2% as intermediate probability based on the LUS classification. The ultrasound findings in patients with

COVID-19 pneumonia included two or more discrete B-lines in 64%, coalescent B lines in 80%, regular thin pleural line in 13.7%, irregular thick pleural line in 86.3%, subpleural consolidation in 48.2%, large consolidation in 25.9%, and pleural effusion in 4.3% of the patients. The sensitivity of lung ultrasound in COVID-19 pneumonia was 100% (97.38%-100%), and the specificity was 52% (41.78%-62.1%). Among the ultrasonography findings, the irregular pleural line had the highest sensitivity (86%), subpleural consolidation had the highest specificity (98%), subpleural consolidation had the highest positive predictive value (97.1%), the irregular pleural line had the highest negative predictive value (77.38%), and coalescent B lines had the highest accuracy (79.92%).

Conclusions

Using lung ultrasonography can prevent unnecessary CT scans, as it has high sensitivity in diagnosing COVID-19 pneumonia. Furthermore, scoring and risk classification can help identify patients as low or high risk at their initial presentation.

003 Experience from the development of a Trauma Registry in the ED of a Tertiary Hospital in Greece

D. Papagiannaki^{1,2}, S. Ili^a, G. Briassoulis², G. Notas¹

¹University of Crete School of Medicine and University Hospital of Heraklion, Emergency Medicine, Heraklion, Greece ; ²University of Crete School of Medicine, Postgraduate program "Emergency and intensive care in children-adolescents- and young adults", Heraklion, Greece

Background

Trauma registries are vital components of trauma patient care. They shape prevention policies and healthcare system organization by identifying injury frequency, types, outcomes, and potential cause-and-effect relationships. We aimed to record the characteristics of trauma patients admitted during their initial visit to a Tertiary Hospital's Emergency Department (ED) and evaluate the predictive capacity of trauma severity scores.

Material and methods

This cohort study was conducted at the University Hospital of Heraklion ED (June-October 2022). Demographics, injury-related data, and injury severity scores (ISS, MGAP, and GAP) were collected from medical records.

Results

448 patients (mean age 59,9, 54.4% men) were included in the study. Most patients had blunt trauma (94,6%). The predominant injury types were femoral fractures (27,2%) and Traumatic Brain Injuries (15,8%). The most common mechanism was falls (38,5%), with 59,4% occurring in women. Within patients with recorded GCS (n=133), only 12 (9,0%) had a score below or equal to 8, and 25 patients

needed emergency intubation, 55% of whom, within 30 minutes of their arrival. Computed tomography was performed in 49.3% of patients, with the most common types being brain (68,2%), cervical spine (42,9%), chest (32,7%), and abdomen (23,9%). 5.0% of patients were admitted to the ICU, 4% had an urgent interventional procedure. Most patients (57,1%) remained in the ED for over 2 hours until the diagnostic procedure was completed. The average hospitalization length was 8,7 days, and the average hospitalization in the ICU was 11,9 days. 11 patients (2,5%) died. Patients admitted to the ICU had higher mean ISS scores (27.3 ± 16.6) and lower mean scores on the MGAP (23.0 ± 4.8) and GAP (18.7 ± 4.6) scales. Patients who died had higher ISS scores (40.5 ± 27.7 vs. 8.5 ± 4.1) and lower MGAP (19.6 ± 3.6 vs. 25.7 ± 3.2). The ISS was more accurate in identifying patients at risk of death or ICU admission compared to GAP & MGAP (AUC 0.965 vs. 0.887 and 0.856, NS) and a cut-off value of 11 predicted death and ICU admission with sensitivity/specificity of 97%/90% and 100/86% respectively.

Conclusions

Falls and traffic accidents are the most frequent accidents leading to admission in our study population. An aggressive campaign to prevent home falls in older women could impact the trauma burden of the Heraklion area. ISS is an excellent predictive tool for ICU admission and death in trauma patients.

004 Outcomes of learning and forgetting for the undergraduate in general disaster medicine education by blended learning during the Covid-19 pandemic: A Prospective Cohort Study.

Z. Wang¹, C. YU¹

¹West China Hospital- Sichuan University, Department of Emergency Medicine, Chengdu, China

Background

The blended learning have been proven to support the teaching of various concepts across disciplines. It is important for the undergraduate to learn some knowledge about disaster medicine and first aid skills, especially during the outbreak of Covid-19.

Material and methods

A prospective cohort study method was used to select students who took the course- "Understanding Disaster and Surviving Risk" in Sichuan University during the 2019-2020 academic year and volunteered to participate in teaching research. The two semesters in this school year adopt different blended teaching model. In first term, students were conducted disaster theoretical knowledge online, which they will practice next week, before class through a Massive Open Online Course (MOOC) which created by our teaching team. In class, teachers guided students in disaster skills training about response and preparedness. We have adopted a new skill training model in second term to replace face-to-face consultation. Students took the tests

before the class, at the end of term and 6 months after term and each test was randomly selected from the question bank according to the subject and number of questions. We defined that the accuracy rate difference between the end of term and before class as the correct improvement rate (CIR), and difference between the end of term and 6 months as the forgetting rate (FR).

Results

A total of 75 students were included in the traditional blended teaching group, and 64 students were included in the new blended teaching group. The three results in traditional group (face-to-face consultation) were (0.38±0.11) %, (0.65±0.11) %, (0.56±0.13) %, respectively. The three accuracy rate in new group (tutoring manipulation online) were (0.49±0.15) %, (0.71±0.13) %, (0.60±0.12) %, respectively. The overall correct rate of new group was higher than the traditional group. The mean scores at the end of term on both groups were higher than the pre-class ($P < 0.001$). The mean scores after 6 months on both groups were lower than the end of term. The new group had a higher accuracy rate on all tests than traditional group.

Conclusions

In conclusion, the traditional blended learning model can improve undergraduate student's performance in general disaster medicine training and deepen student's memory of knowledge. The blended learning model that both theoretical learning and guidance of practice online may replace the traditional blended learning model for general disaster medicine training during Covid-19 pandemic.

Oral Abstract Presentations 2

17:00-18:00, 27 May

005 Survival analysis of acute coronary syndrome patients treated at the University Clinical Centre Kosova, Emergency Department

M. Gashi¹, A. Çitaku², S. Hoxha-Gashi³

¹University Clinical Centre of Kosova- Medical Faculty-University of Prishtina, Emergency Center, Prishtina, Kosovo ; ²University Clinical Centre of Kosova, Emergency Center, Prishtina, Kosovo ; ³National Institute of Public Health of Kosova, Health Statistics Department, Prishtina, Kosovo

Background

Acute coronary syndrome is the leading cause of cardiovascular morbidity and mortality, resulting in substantial health care utilization and costs. The mortality rate of ACS in the first 30 days after the onset of disease ranges from 30-50%, with about half of deaths occurring within the first 2 hours. The aim of the study is to analyze the survival of patients with acute coronary syndrome diagnosed in the Emergency Center of the University Clinical Center

of Kosovo during their stay in the hospital and up to one year after.

Material and methods

This observational clinical study has included 1498 cases of ACS patients (defined in accordance with the criteria of the 2000 consensus document "Myocardial Infarction redefined" of the ESC/ACC Joint Committee) admitted to Emergency Center of University Clinical Center of Kosova

Results

In hospital mortality rate for ACS was 10.3% more for female 12.5% vs. male patients (9.0%) with significant difference ($P=0.041$). In univariate Cox regression analysis the age, STEMI, NSTEMI, female sex, diabetes, hyperlipidemia, smoking and low LVEF were significant risk factors for in-hospital mortality. In multivariate Cox regression analysis, only age, the presence of STEMI, the lack PHE treatment, diabetes mellitus, low LVEF and smoking remain independent predictors of mortality. STEMI patients had a lower survival rate when compared to patients admitted for ACS and having NSTEMI or UA. Using the Log rank test, we discovered a significant difference on in-hospital mortality between STEMI and NSTEMI patients ($P < 0.001$), STEMI and UA patients ($P < 0.001$) and NSTEMI and UA patients ($P < 0.001$). After one year, when the patients were contacted by phone, the probability of survival was 0.81, and the mortality rate from admission to 12 months was 19.4%.

Conclusions

In-hospital mortality of patients admitted with ACS in Kosovo remains high, compared with developed countries.

006 Study of post-contrast acute kidney injury on high-risk patients in the emergency department settings

M.S. Özkan¹, A.Y. Ünal¹, S. İbze¹

¹Akdeniz University- School of Medicine, Department of Emergency Medicine, Antalya, Turkey

Background

Intravenous contrast administration in computed tomography (CT) has been linked to acute kidney injury (AKI). However, the risk remains controversial, particularly in patients with renal impairment. This study aimed to assess the risk of AKI following contrast-enhanced CT in patients with varying levels of renal function.

Material and methods

A retrospective cohort of 516 patients with eGFR < 45 mL/min/1.73 m² (contrast-enhanced CT, n=77; unenhanced CT, n=439) was analysed. Primary outcomes were 30-day mortality and RRT requirement. Secondary outcome was AKI development within 48-72 hours post-contrast.

Results

The contrast-enhanced CT group had higher AKI incidence (16.9% vs. 5.5%, $p < 0.001$) but no significant differences in 30-day mortality (29.9% vs. 23.3%, $p = 0.210$) and RRT requirement (5.2% vs. 6.6%, $p = 0.803$) compared to the unenhanced chest CT group. After propensity score matching, AKI development differences were no longer significant (16.8% vs. 9.0%, $p = 0.150$).

Table 1. Comparison of groups according to outcomes after matching

Outcome	Unenhanced Chest CT (PS-Matched)	Contrast Enhanced CTA	Pvalue
Mortality (%)	23,4	29,9	0,362
RRT (%)	2,6	5,2	0,681
AKI (%)	9,0	16,8	0,150

CT: computerized tomography, CTA: computerized tomography angiography

* 50% increase in serum creatinine level or an absolute increase of 0.3 mg/dl.

Conclusions

AKI risk following contrast-enhanced CT in patients with eGFR <45 mL/min/1.73 m² may be lower than previously thought. Clinicians should weigh benefits against potential risks for patients with reduced renal function. Further large-scale prospective studies are needed to confirm findings and establish safe contrast administration guidelines for renal impairment patients.

007 The Importance of Plateletcrit Level in the Diagnosis of Deep Vein Thrombosis

Ş. Şakalar¹, K. Parpuçcu Bağçeci¹, P.G. Gök¹, M.E. Çanakçı²

¹Yunus Emre State Hospital, Emergency Medicine, Eskişehir, Turkey; ²Eskişehir Osmangazi University, Department of Emergency Medicine, Eskişehir, Turkey

Background

Venous thromboembolism, including Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE) is an important cause of morbidity and mortality. History of surgical operation, long-term hospitalization, immobilization, trauma, malignancy, pregnancy, use of estrogen-containing contraceptives, and hereditary thrombophilias be associated with DVT. Platelets (Plt) have an important role in hemostasis and thrombosis. Plateletcrit (PCT), an indicator of total platelet mass, is part of a routine blood count. Studies reveal that MPV and plateletcrit may have an important role in both arterial and venous thrombosis.

When we look at the literature, studies between DVT and platelet indices are not sufficient. Therefore, we aimed to investigate the relationship between DVT and platelet indices in our study.

Material and methods

The study included 151 cases who applied to Eskişehir Yunus Emre State Hospital Emergency Service between 01.01.2022 and 01.01.2023 and underwent lower extremity venous doppler ultrasonography (USG). Demographic data such as age and gender, as well as PCT values and Doppler USG results of these cases, were examined.

Results

Of the study group, 73 (48.3%) were female and 78 (51.7%) were male. Their ages ranged from 15 to 92, with a mean of 60.5 (17.4), with a median of 63 years. PCT was not studied in 48 (31.8%) of 151 cases. Of 103 cases studied for PCT, 6 (5.8%) were positive and 97 (64.2%) were negative. While DVT was present in 30 (19.9%) cases, it was absent in 121 (80.1%) cases. There was no difference in age between patients with and without DVT ($z=1.434$; $p=0.151$). In the PCT study group (103 cases), there was no difference in PCT positivity between patients with and without DVT (Fisher's Exact test=0.613), but PCT mean and median values of patients with DVT were lower than those without ($z=1.963$; 0.050)

Conclusions

Our study found no significant difference between patients with and without DVT in terms of PCT positivity. In another study in the literature, PCT was found to be significantly higher in patients with suspected DVT. In another study, similar to our study, there was no significant relationship between DVT and platelet volume parameters. The study's limitations are that additional factors affecting DVT were not examined in our study and the number of our patients was small. Therefore, more comprehensive studies are needed on this subject.

008 Factors related to functional decline after minor trauma in older adults

A. Roumeliotis¹, A. Tsiavos¹, K. Savvidis¹, V. Eleftheriadis¹, D. Tsiftsis¹, G. Notas¹

¹University of Crete School of Medicine and University Hospital of Heraklion, Emergency Medicine, Heraklion, Greece

Background

Minor injuries may significantly impact the mid/long-term functional status of elderly patients, impact their quality of life, and increase their dependence on others for basic tasks. We aimed to quantify the functional decline of elderly patients visiting the Emergency Department (ED) with minor trauma and identify associated risk factors.

Material and methods

This prospective cohort study enlisted 120 patients with minor trauma (ISS <3). Demographics, past

medical history, and trauma characteristics were recorded on the day of the ED visit. Patient functional status was assessed using the Clinical Frailty Scale (CFS), the Activities of Daily Living (ADL) Barthel Index, and the Short Form Survey (SF-12) recorded on day 0 and day 90 post-trauma.

Results

The analysis included 94 patients (24 lost on follow-up, 40 male), 63% aged between 65 and 80, and 37% older than 80. 83% of patients had ISS 1 and 17% had ISS 2 trauma, 33% had a laceration, 11% had thoracic trauma, 30% presented after a fall, 7% had a sprain, 11% had upper, and 11% lower extremity trauma. The duration of trauma-related functional limitation was 6.2 ± 3.1 days for ISS 1 and 8.4 ± 3.0 days for ISS 2 cases ($p < 0.006$). Self-reported health decline (46 patients) correlated with reductions in CFS (24 patients, $p < 0.001$) and the physical component summary of SF-12 ($p < 0.001$) but not with the ADL Index or the mental component summary of SF-12. Compared to patients between 65 and 80 years old, patients above 80 were found to more commonly have increased CFS (36% vs. 17%, $p < 0.05$) and decreased ADL index (22% vs. 7%, $p < 0.02$) at 90 days post-trauma. Increased ADL index at 90 days was found in patients with a pre-existing diagnosis of depression (60% vs. 10% in patients without depression, $p < 0.001$), osteoarthritis (30% vs. 7%, $p < 0.003$), osteoporosis (38% vs. 11%, $p < 0.03$), and lower extremity related trauma (40% vs. 10%, $p < 0.006$). Patients with an increase in frailty score at 90 days reported 8.0 ± 2.6 days of functional limitation vs. 6.2 ± 3.2 days for those without it ($p < 0.01$). Patients with an increase in ADL index reported having 8.8 ± 2.0 days of functional limitation vs. 6.3 ± 3.2 days for patients without ($p < 0.006$).

Conclusions

Older adults presenting to the ED with minor trauma display significant functional decline at 90 days. Age over 80, depression, osteoarthritis, osteoporosis, and lower extremity trauma should prompt increased post-trauma care to prevent this decline.

EPOSTER ABSTRACTS

EPoster Presentation: Cardiovascular and Neurologic emergencies

001 Case report: Acute aortic dissection presenting as comma

M. Perović¹, M. Bogdanović-Vujović¹, S. Bojičić-Bulajić¹, R. Boričić²

¹Emergency medicine specialist, Emergency center of Clinical Center of Montenegro, Podgorica, Montenegro ; ²Internal medicine specialist, Emergency center, Podgorica, Montenegro

Background

The aorta is a main artery that carries blood away from heart to the rest of the body. The aorta is about an inch wide and has an inner, middle, and outer

layer. A dissection of an aorta happens when the pressure or weakness inside the aorta causes the layers to split and break the aorta wall. Dissection can occur in either the ascending or descending part of your aorta or both. Type A dissection means the tear involves ascending aorta, regardless of where the initial tear occurred. Dissections that start in the descending aorta are considered type B. Type A aortic dissection is a very dangerous, fatal, and emergency condition in medicine. Aortic dissection may mimic other more common conditions, such as coronary ischemia, pulmonary embolism, heart failure, stroke, and acute abdominal illness.

Material and methods

Case report from register of patients in Emergency center Clinical Center of Montenegro: This case reports a 87-year old woman presenting with coma, low saturation, hypotension but later diagnosed as acute aortic dissection type A. Electrocardiogram was immediately taken which showed normal sinus rhythm with nonspecific ST deviation. Cardiac enzyme levels were all within normal limits and nothing specific was found on the laboratory tests except an increase in D-dimer. Aortic CT angiography was performed on the patient which confirmed the evidence of dissection. Immediately after the diagnosis, the patient was admitted in the ICU.

Results

We presented type A dissection with symptoms include coma and painless dissection which has been reported with an incidence of 6.4% to 17%.

Conclusions

Conclusion: This case report emphasizes the importance of clinical suspicion of aortic dissection and discusses the important clinical presentations of aortic dissection and its diagnostic methods. Clinicians must always be aware of aortic dissection and thorough history taking and physical examination must be performed.

002 Ventricular Tachycardia-Case Report

R. Tuna-Dushaj¹

¹Emergency medicine specialist, Emergency center of KCCG, Tuzi, Montenegro

Background

Ventricular tachycardia (VT) storm continues to be an important challenge for the doctors all over the globe. VT storm usually occurs in a structurally diseased heart with low left ventricular ejection fraction (LVEF) but may also occur in patients with arrhythmic syndromes like long QT syndrome, Brugada syndrome and catecholaminergic polymorphic VT who have structurally normal heart.

Material and methods

Case report from register of patients in Emergency Center of Clinical Center of Montenegro

87 years old male, known as chest pain, was brought to Emergency Center of KC of Montenegro with polymorphic VT registered on monitor. There was history of chest pain since last 15 days. He was resuscitated with direct cardioversion (DC) followed by cardiopulmonary resuscitation (CPR) after which we got s.r fr 60/min and taken up patient in ICU. In his past medical history, he had AF on anticoagulant drugs, ischemic cardiomyopathy and insufficiency of mitral valve.

Results

The 87-year-old gentleman presents late to the medical services with history of chest pain. At admission he was documented to have cardiac arrest with polymorphic VT. The most common cause of polymorphic VT in a post MI patient is ischemia; hence he was taken in ICU of cardiology. This case emphasizes how challenging the management of VT storm can be complicated and needs to be resolved immediately.

Conclusions

The aim of this case report was to discuss treatment options available for VT storm and practical problems faced during management of such a patient.

003 Dual threat: Cardiac Myxoma and significant Coronary Artery Disease

I. Refatllari¹, A. Doko¹, N. Shuka¹, A. Refatllari², S. Dumani², A. Goda¹

¹University Hospital Center "Mother Tereza", 1st Clinic of Cardiology, Tirana, Albania ; ²University Hospital Center "Mother Tereza", Department of Cardiac Surgery, Tirana, Albania

Background

A cardiac tumor was first described by Columbus in 1559⁽¹⁾, followed by Malpighi who in 1666 wrote about "De polypo cordis".⁽²⁾ Approximately, three quarters of cardiac tumors are benign and amongst them half are myxomas commonly located in the left atrium⁽³⁾. They present mostly between the third to sixth decade of life, predominantly in women and are a major cause of morbidity and mortality due to dynamic mechanical obstruction of cardiac structures and thromboembolic potential.

Material and methods

A 62-year-old man presented in the hospital due to recurrent syncopal episodes and shortness of breath which started almost six months ago but exacerbated in the last week. He was a heavy smoker with a history of untreated hypertension. ECG showed sinus rhythm, rate 100/min, no remarkable findings. On admission the troponin was negative and NT-proBNP slightly elevated (675.5 pg/ml, normal range < 125 pg/ml). Other laboratory findings were unremarkable other than an LDL -C of 70 mg/dl. A transthoracic echocardiography was performed and it revealed the presence of a large (surface area ~ 14 cm²), hyperechogenic, pedunculated mass in the left atrium, attached to the interatrial septum causing a moderate to severe functional mitral stenosis. The

mass was consistent with a left atrial myxoma. The left atrium was dilated and moderate pulmonary hypertension was present (PAP ~ 55 mmHg). The left and right ventricles were normal. Due to the patient's condition an urgent diagnostic coronary angiography was performed. It revealed significant left main and triple vessel coronary artery disease. Under these circumstances the patient underwent an emergent cardiac surgery which consisted in excision of the mass and revascularization of the coronary arteries using 3 grafts. The patient recovered well and was discharged on day eight post-op.

Results

Considering our patient characteristics, it is possible that clinical symptoms such as syncope and dyspnea, may be similar manifestations of the myxoma as well as of the coronary disease.

Conclusions

In rare cases of Coronary Artery Disease and myxoma, both conditions need to be addressed properly. Careful examination of the coronary angiogram is necessary. Simultaneous coronary artery bypass grafting and tumor resection should be the definitive treatment.

004 Non-ST+ acute coronary syndrome in the emergency department: Clinical and epidemiological aspects

S. Khabouchi¹

¹Charles Nicole Hospital, Emergency Department, Tunis, Tunisia

Background

Non-ST+ acute coronary syndrome (NSTEMI) is a frequent reason for admission to the emergency department. It constitutes a therapeutic emergency requiring an adapted management, the precocity of which influences the prognosis. The goal of this study was to investigate the epidemiological and clinical characteristics and evolution of patients admitted to the emergency department for NSTEMI.

Material and methods

Retrospective, descriptive study, conducted over a 6-month period, including all patients aged over 18 years hospitalized in the emergency department for NSTEMI. Exclusion criteria were records with missing data. Calculation of ischemic and hemorrhagic scores (GRACE, TIMI, PURSUIT, and CRUSADE score).

Results

We included 71 patients. The mean age was 61 ± 11 years with a gender ratio = 1.73. Cardiovascular risk factors (n, %): Hypertension (45,63); Diabetes (47,66); Smoking (27,38); Coronary insufficiency (43,7%), Angioplasty (14, 21%); Aortic bypass surgery (2,3), dyslipidemia (33,8). Reasons for consultation (n, %): chest pain (57,80); dyspnea (16,6) and epigastralgia (2,8). The evaluation of pain objectified a mean numerical scale was 4.9. Repolarization disorders were found in 60 patients

(%): ST undershift (53.5%), negative T waves (23.9%), flattened T waves (11.3%), R planing (15.5%), biphasic T waves (4.2%) and a normal electrocardiogram was found in 7 patients. The mean GRACE, TIMI and PURSUIT scores were 135; 3.7 and 22 respectively. Oxygen therapy was used in 16.9% of cases and non-invasive ventilation in 8 patients. The evolution was marked by complications in 21% of the cases: acute pulmonary edema (14%), angina recurrence (14%) and myocardial infarction (7%).

Conclusions

NSTEMI is a very heterogeneous condition with several clinical presentations. Clinical evaluation of patients, risk stratification and therapeutic attitude are the pillars of initial management in the emergency department.

005 Meningoencephalitis presenting as ischemic stroke in the ED

S. Khabouchi¹

¹Charles Nicole Hospital, Emergency Department, Tunis, Tunisia

Background

Meningoencephalitis is a frequent reason for admission to the emergency room and intensive care unit. Their clinical presentation can simulate other neurological emergencies such as strokes.

Material and methods

A case report of meningoencephalitis revealed by seizures and neurological deficits.

Results

We report the case of a 68-year-old patient with a medical history of diabetes and hypertension. He consulted the emergency room for headache, vomiting, gait disorders and left hemiparesis. The initial physical examination found a Respiratory rate of 18 cpm, a SpO₂ of 98% and a free PA. The SAP was 150 mmHg and the DBP 90 mmHg with a heart rate of 90 bpm. The blood glucose level was 1g/l. The neurological examination showed a GCS of 15/15 with left hemiparesis. An ischemic stroke was suspected. The biological assessment showed a hyperleukocytosis (WBC=31380) with PNN predominance (29260), a thrombocytopenia at 130,000, a correct renal function with a CRP at 243. The cerebral CT showed a cortico-subcortical hypodensity, right parieto-occipital evoking an ischemic stroke. The patient was hospitalized in a close monitoring unit, and the evolution was marked by a deterioration of the neurological state (GCS=10/15) and the occurrence of focal convulsive seizures of the left hemiface. The therapeutic conduct was to administer an anti-epileptic drug (clonazepam). The neurological state deteriorated (GCS=7/15) with the occurrence of a status epilepticus, which led to the need for intubation and mechanical ventilation. A brain CT scan was performed showing a right parieto-occipital brain abscess. The biological investigation was completed

by a lumbar puncture with a cloudy appearance and a pleocytosis (90% Lymphocytes, 10% PNN). Immediately, a meningeal dose of antibacterial therapy was administered: ceftriaxone, gentamicin, ampicillin. To better characterize the lesions, a cerebral MRI showed the aspect of a meningoencephalitis complicated by a parieto-occipital cerebral abscess and a subdural empyema responsible for a deviation of the median line of 3 mm. The neurosurgery department was contacted for operative indication, then the patient was transferred to the intensive care unit.

Conclusions

Meningoencephalitis is a rare and serious disease. Early diagnosis allows for early treatment and improved prognosis.

006 Altered consciousness revealing nosocomial meningoencephalitis and cerebral metastasis, a case report

S. Khabouchi¹

¹Charles Nicole Hospital, Emergency Department, Tunis, Tunisia

Background

Nosocomial infections are sometimes responsible for several complications. Postoperative bacterial meningitis is a rare but serious complication of cranial and spinal surgery.

Material and methods

A post-operative meningoencephalitis

Results

A 68-year-old woman with a medical history of Lung Tumor, Pulmonary embolism diagnosed 5 months ago, spondylodiscitis operated 2 weeks before her admission, presented to the ED with altered consciousness and fever. The initial Clinical examination finds a Respiratory rate of 22 cpm, with free PA and SpO₂ was 98%. The SAP was 120 mmHg and the DBP was 80 mmHg. The patient was febrile at 38.5. The neurological examination showed a GCS of 10/15 with neck stiffness, Kernig and Brudzinski signs. Then the neurological state worsened with a GCS=3/15 on neurological examination. The patient was sedated, intubated and ventilated due to neurological distress. Blood tests showed a biological inflammatory syndrome, a hyperleukocytosis with predominantly PNN (WBC=13930, PNN=11690) and CRP=349, hypokalemia and hyponatremia. A cerebral CT scan was performed showing subcortical hypodensity in the right frontal lobe. The diagnosis of meningoencephalitis was made. The lumbar puncture showed a cloudy aspect with predominantly lymphocytic pleocytosis (70%) and PNN (30%), hyperproteinorachy (4.7g/l) and a profound hypoglycorachy. The diagnosis of viral or tuberculous meningoencephalitis was suspected. Antibiotic therapy was instituted (Ampicillin, gentamicin) with antiviral treatment (Aciclovir) and anti-tuberculosis Quadritherapy. The culture came

back positive for *Klebsiella pneumoniae*. Antibiotic therapy was adjusted (Cefotaxime, gentamicin). The cerebral MRI showed a T2, FLAIR and diffusion hypersignal, a cardinal aspect of meningoencephalitis, and a right frontal nodular lesion surrounded by a perilesional edema suggesting a secondary lesion or an abscess. The result of the bone biopsy concluded to an adenocarcinoma. The diagnosis of a pulmonary neoplasia with bone and cerebral metastases with KP meningoencephalitis was retained. The patient then presented a septic shock requiring the use of vasoactive drugs, the blood cultures and the PTP were positive to KP ESBL so the antibiotic therapy was adapted to the Antibioqram. The patient was then transferred in intensive care.

Conclusions

Klebsiella pneumoniae is responsible for serious nosocomial meningitis, with a difficult therapeutic management and therefore requires adequate preventive measures.

007 Assessment of ECG and coronary angiography in patients with STEMI who apply to the emergency department

Y. Ay¹, M.E. Çanakçı¹, O.E. Sevik¹, M.E. Koksall¹, M. Cetin², F. Baloglu Kaya¹, E. Ozakin¹, E. Karakilic¹, N. Acar¹

¹Eskişehir Osmangazi Üniversitesi, Emergency Department, Eskişehir, Turkey ; ²İzmir Behcet Uz Hospital, Emergency Department, İzmir, Turkey

Background

STEMI requires prompt diagnosis and intervention with coronary angiography and bypass surgery as important treatment options. Recent studies have shown that these interventions lead to improved outcomes with lower risk of adverse events, emphasizing the importance of early intervention in STEMI management

Material and methods

In this retrospective, single-center study, 776 consecutive acute coronary syndrome patients who presented to the ED were included. The study evaluated patient characteristics, laboratory results, and in-hospital mortality. Patients who underwent angiography after presentation to the ED were assessed for STEMI, and the occluded vessels were compared proportionally with the need for CABG. Mortality rates were evaluated at hospital discharge.

Results

This study on ST-elevation myocardial infarction (STEMI) included 776 patients, out of which 25.3% were female and the median age was 62.03 [24-98] years. Chest pain (n=600, 77.3%) and nausea (n=258, 33.2%) were the most common presenting symptoms. Electrocardiogram (ECG) findings showed that 38% of patients had anterior MI, 7.5% had septal MI, 13.1% had lateral MI, 38.8% had inferior MI, 6.1% had right MI, and 11.1% had

posterior MI. Most patients with >90% occlusion of LAD, CX, and RCA had inferior MI on ECG: LAD (73 patients, 37.8%), CX (75 patients, 41.6%), RCA (63 patients, 43.4%). In >90% LMC occlusion, anterior MI was observed in 5 patients (45.4%). 81 patients had bypass surgery: 79% had >3 vessel occlusion, 12.3% had 2 vessel occlusion, and 0.8% had 1 vessel occlusion. CABG was necessary in all patients with >99% occlusion of the LAD (p=0.001). Among the patients, 56 (7.2%) died, and a higher incidence of mortality was observed in patients with >99% occlusion of the LAD (p=0.008).

Conclusions

In conclusion, STEMI remains a significant health problem with chest pain and nausea being the most common presenting symptoms. Early recognition and treatment, especially in patients with occlusion of the LAD, are crucial to improve outcomes and reduce mortality rates. Further studies are needed to identify risk factors for STEMI and evaluate new treatment options.

008 Acute coronary syndrome in small hospitals - experiences from the hospital in Bihać for the period from January 2010.- January 2020.

I. Arifović¹, F. Ajdinović¹, A. Mizić¹, D. Selimović¹, K. Ljuhar²

¹Cantonal Hospital "Dr Irfan Ljubijankić" Bihać, Emergency Care Center, Bihać, Bosnia - Herzegovina ; ²Institute for emergency medical assistance of Sarajevo Canton, Emergency room, Sarajevo, Bosnia - Herzegovina

Background

The main objective of this paper was to examine the frequency of acute coronary syndrome in a ten-year period in the Emergency Medicine Center of Bihać Cantonal Hospital. The specific objectives of the research were to examine the influence of the age of patients on the frequency of acute coronary syndrome in the examined period.

Material and methods

It is a retrospective study for which data were obtained from the outpatient protocols of the Internal Medicine Outpatient Clinic of the Emergency Medicine Center of the Bihać Cantonal Hospital in the period from January 2010 to January 2020. It is important to emphasize that due to the limited diagnostic resources the diagnosis of acute coronary syndrome is made clinically, based on ECG records and biochemical status (cardiac necrosis enzyme and troponin).

Results

We showed that the highest number of patients was in 2010- 285 (14, 0%), while the lowest number of patients was in year of 2019 – 96(4, 7%) with decreasing tendency. It is evident that in the observed period, the number of male patients is greater, in a ratio of 2:1 in favor of men. The total number of male patients is 1339, which is 65.5% of the total sample, while the number of female patients

is 704, or 34.5% of the total sample. We followed the trends in the ratio of male and female patients by age of the observed period, as well. It can be seen that the biggest difference was in 2017, when out of the total number of patients with acute coronary syndrome (165), as many as 120 patients were male and 45 were female. The smallest difference in the ratio was in 2012, when there were 56.4% men and 43.6% women. Beside that, we examined the the average age of the patient upon admission to the Emergency Medicine Center. It shows that the average age is 62.23

Conclusions

It is evident from our study that in a ten-year period, the number of patients follows the global incidence of this condition. We also proved that there is a tendency of a linear decrease in the number of patients with acute coronary syndrome in the last ten years. Also, with our study, we came to the results in which gender is a risk factor for the development of acute coronary syndrome. Our data show that two thirds of the patients in the ten-year period were male. In this study we proved that age is a risk factor for acute coronary syndrome. The average age of patients with acute coronary syndrome is 62.2. We came to similar data by comparing available studies and epidemiological data.

EPoster Presentation: Decision making

009 acid intoxication - case report

M. Đorđević¹

¹University Clinical Center Nis, Emergency Department, Nis, Serbia

Background

Acids are corrosive poisons that extract water from tissues, coagulate proteins and form acid albuminates, and convert haemoglobin into acid hematin. On the world map of toxicology, Serbia ranks among the countries with a high percentage of caustic poisoning. In developed countries, intoxication with corrosives is extremely rare due to their unavailability and prohibited free sale.

Material and methods

The patient's medical history of the Department of Toxicology Niš, as well as the forensic medical autopsy report, were used to describe the case.

Results

Case report: Female patient during the evening of 01/11/2023. drank about 150 ml of hydrochloric acid, with the aim of committing suicide, and because of disagreements in the family. She was brought to hospital, conscious, pale, vomiting. A urinary catheter was placed and hemoglobinuric urine was obtained. First suicide attempt, untreated psychiatrically so far. Examined by an ENT specialist

and emergency esophagogastroduodenoscopy was performed. She gives the impression of a serious patient with poisoning severity score 4. Skin around the lips hyperaemic, with burns, oral cavity hyperaemic, oedematous. Abdomen: painful and diffusely sensitive to palpation, urine bag 1500ml hemoglobinuric urine. Laboratory parameters showed acidosis, hyperglycaemia, acute renal failure. A tracheotomy was performed due to insufficiency of the respiratory tract. Despite all resuscitation measures, a lethal outcome occurred on 01/12/2023. at 03:30. Autopsy findings: flaccid tongue with dirty-brown deposits. Dirty-dark-brownish-liquid content is present in the oesophagus, its mucous membrane is darkly discoloured, and the upper mucosa is missing. The mucous membrane of the stomach with obliterated folds, swollen, almost entirely darkly discoloured.

Conclusions

Emphasis should be placed on preventive measures. The management of the intoxicated patient distinguish pre-hospital and hospital measures. Possible complications include an oesophageal stricture, stenosis of the pylorus and the oesophagus, or gastric cancer. Highly concentrated hydrochloric acid is still frequently ingested with a high mortality rate. Patients with higher grades of gastrointestinal injury, pneumonia, renal injury and higher amount of acid ingested should be more carefully monitored as they are more susceptible to develop fatal consequences.

010 Predictive external validity of the LST Role for 30 days mortality in geriatric patients with fever presenting at Emergency Departments: a prospective study.

H. Akbari¹, R. Javdani², A. Akhgar³, H. Ghaffari⁴

¹Tehran University Of Medical Science, Emergency Medicine, Tehran, Iran ; ²Azad University Of Medical Sciences, Neurosurgery, Tehran, Iran ; ³Tehran University Of Medical Sciences, Emergency Medicine, Tehran, Iran ; ⁴Tehran University Of Medical Sciences, Emergency Medicine, Emergency Medicine, Iran

Background

The percentage of geriatric population (aged ≥65 years) is assessed to be quickly increasing, from 6.2% of the world population in 1992 to 20% by 2050. (3)

Predictors of poor outcome in geriatric patients are important. Most of these predictors are impractical for the ED. LST role (leukocytosis, sever coma and thrombocytopenia) is a practical role that studied. many predicted factors they considered might be different in our aim, because of changes in demography and geriatric care. We thus conceived a research question for assessing external validity of LST Role.

Material and methods

Consecutive geriatric patients who visited the ED between June 1, 2021, and June 2022 were enrolled when they met one of the following criteria of fever. (2,8,9)

This is a prospective study. a reviewer collected data with a question form. The next step was following patients who were discharged. The reviewer retrospectively collected information with telephone follow-up. it was in compliance with the policies approved by Institutional Review Boards (IRBs).

Overall, 319 geriatric patients from the ED met the principle of fever. Three hundred two patients were enrolled after excluding 17 patients with inadequate data or transferred patients who had been treated in other hospitals. All the patients that enrolled, were divided into 2 groups. that is based on their outcome survival or mortality after 30days. There are variables that used for comparisons between two groups.

Results

The results showed that decreased level of consciousness with 64% was more predictive than leukocytosis and thrombocytopenia with 49.5% and 44.1% frequency in dead patients, respectively. With these interpretations, it can be definite that in the studies showed in order to assess the validity of LST Role in predicting the 30-day mortality rate of elderly patients with fever.

Conclusions

Based on the findings of the current study, it was observed that the disorder of all three axes of the LST index in patients is directly related to patient mortality. It was also found that among leukocytosis and thrombocytopenia and decreased level of consciousness, impaired reduction in the level of consciousness of elderly patients with fever referred to the emergency department is a more important predictor of the mortality rate of patients referred to the emergency department.

011 Drug Rash with Eosinophilia and Systemic Symptoms (DRESS) syndrome due to Salazopyrine: A case report.

N. Alaeddine¹

¹Charles Nicole Hospital, Emergency Department, Tunis, Tunisia

Background

Toxicodermias are a form of iatrogenic cutaneous-mucous expression whose severity lies in the associated organ failure. We report a case of a 32-year-old woman treated with Salazopyrine for ulcerative colitis, who developed DRESS syndrome.

Material and methods

A case report about a DRESS Syndrome in the emergency department.

Results

A 32-year-old female patient was hospitalized for a generalized pruritic rash in a febrile context. She was recently diagnosed with ulcerative colitis and was on treatment with Salazopyrine and clidinium-chlordiazepoxide. The patient was stable on the respiratory, hemodynamic, and neurological fronts. Cutaneous examination revealed a generalized erythematous macular rash, not affecting the palms and soles, without mucosal involvement, along with fever. The rest of the examination was unremarkable. Laboratory investigations showed leukocytosis of 25280 cells/mm³ with eosinophilia of 2560 cells/mm³ and liver cytolysis 17 times the normal value. The results of bacteriological samples and clinical data did not suggest any recent infection. The RegisCAR for DRESS was 7 points, highly suggestive of the diagnosis. In view of the liver involvement, corticosteroid therapy was initiated, and the patient showed improvement on the 13th day with attenuation of cutaneous signs and normalization of liver function and eosinophils within 5 weeks. Other differential diagnoses, including infectious diseases, systemic diseases, and photosensitivity, were considered but ruled out, given the favorable evolution after discontinuing Salazopyrine.

Conclusions

DRESS syndrome represents a form of toxicoderma that can lead to serious visceral involvement, especially in the liver and kidneys. Early initiation of corticosteroid therapy with discontinuation of the offending molecule improves the prognosis of patients

012 Bringing the future into the present – the opportunities for implementing novel technologies and teaching methods on the quality of an emergency medicine clerkship in Croatian medical schools

Đ. Delalić¹, V. Nesek Adam²

¹University of Zagreb, School of Medicine, Zagreb, Croatia ; ²Clinical Hospital Sveti Duh, Emergency Medicine Department, Zagreb, Croatia

Background

Emergency medicine clerkships are mandatory rotations for medical students in Croatia. The structure and duration of clerkships differ amongst individual medical schools. Due to the COVID-19 pandemic, novel teaching methods and technologies have emerged, including the flipped classroom model, team-based learning (both online and face-to-face) and resident-led education due to staff shortages. This literature review aims to present data from the existing literature on the effectiveness of these novel methods and their potential place in existing clerkship curriculums.

Material and methods

A search of the literature was conducted using the MEDLINE, Scopus, Google Scholar and Web of Science databases, with the keywords “emergency

medicine curriculum”, “team-based learning”, “resident” and “flipped classroom”. Original research articles that describe the implementation of the abovementioned methods and quantify their effectiveness were included.

Results

The implementation of team-based learning, contrary to traditional *ex-cathedra* lectures, improved the students' test scores by 7.5%. Regarding resident-led education, medical students preferred residents as teachers to attendings, citing better educational experiences in the areas of interpersonal communication, bedside teaching and clinical knowledge. However, in systems where a dedicated teaching attending (DTA) was available during a clerkship, students preferred the attending's teaching, with the odds of students rating their clerkship experience as 100% satisfactory increasing by a factor of 13 if a DTA was present during their clerkship. Experiences and results with the flipped classroom model differ by study and institution, with some institutions reporting 76% of students preferring flipped classroom to traditional learning. Other institutions reported a large fraction of students (31.1%) having significant difficulties with adapting to the flipped classroom model and no significant differences ($p = 0.494$) in end-of-clerkship test scores.

Conclusions

While the COVID-19 pandemic introduced several new teaching methods and technologies, their effectiveness has yet to be proven as superior to traditional teaching. Although further studies are necessary in order to compare different clerkship teaching models head-to-head, it can be inferred from the available ones that team-based learning supervised by dedicated faculty appointed exclusively to teaching yields the best results in both the knowledge acquired and the student satisfaction departments.

013 Combination of MDW with conventional screening scores and biomarkers may be a new approach in clinical decision support in early sepsis management in emergency care

P. Erdelyi¹, L. Papp¹, R. Benko¹, Z. Vamos², Z. Peto¹

¹University of Szeged, Emergency Department, Szeged, Hungary ; ²University of Pécs, Department of Anaesthesiology and Intensive Therapy, Pécs, Hungary

Background

Monocyte distribution width (MDW) is new laboratory parameter to quantify the changes of the shape and volume of circulating monocytes under pro-inflammatory conditions. Studies described that, MDW alone has relatively high sensitivity for sepsis in emergency setting and MDW enhanced sensitivity of other biomarkers when was applied in combination. The aim of this study is to find a highly sensitive early sepsis screening model to

help the clinical decision making from the earliest point on in emergency care. MDW, conventional biomarkers (white blood cell count (WBC) and lactate) and different screening scores (quick sequential organ failure assessment score, systemic immune response syndrome, national early warning score (NEWS), and modified early warning score) were tested individually and in combinations to find the highest sensitivity and negative predictive value (NPV) for the established diagnosis of sepsis and the 30-day sepsis related mortality.

Material and methods

A retrospective single-centre observational study, enrolled adults with suspected sepsis in the period between 23 September 2019 - 31 December 2020. All patients with incomplete data set were excluded. Earliest laboratory and arterial blood gas results were considered in this study. Screening scores were calculated from parameters on arrival. Sepsis diagnosis was made or ruled out retrospectively using the Sepsis-3 definition. Sensitivity and NPV were calculated for the diagnosis of sepsis and the 30-day sepsis related mortality in 39 possible permutations of the examined variables.

Results

770 patients were enrolled. Sepsis was diagnosed in 30.8% (N=237). Among all patients 30-day sepsis related mortality rate was 10.1% (N=78). Among individual variables, MDW had the highest sensitivity (86.6%) and NPV (89.7%) for the diagnosis of sepsis and for the 30-day sepsis related mortality (86.4%, 96.1%). The highest overall sensitivity and NPV was reached with the combination of MDW, WBC count and NEWS for both the diagnosis of sepsis (97.5%, 95.7%) and the 30-day sepsis related mortality (98.8%, 99.3%).

Conclusions

Early decision making in sepsis management is challenging and time consuming in emergency care. Our results showed that the combination of MDW with WBC count and NEWS has very high sensitivity and NPV both for the diagnosis of sepsis and the 30-day sepsis related mortality. The use of this combination in clinical decision making might be transferred into clinical practice if future studies back up our results.

014 Title: The importance of timely diagnosis of life-threatening pathologies in intensive care and taking appropriate steps in their treatment.

S. Hulaj¹

¹Ismet Jusufi- Julia Myshku- Imer Sejdiu, Anesthesiology and ICU, Prishtina, Kosovo

Background

Patient Y.M, 65 years old, (status post ICV 3 years ago with hemiparesis of the left side), who is admitted to intensive care with complaints of fatigue, body weakness. The patient is pale. The right lung is

weakly auscultated. Heart with arrhythmic tones (atrial fibrillation). Family members refer that three days ago the patient was presented to the family doctor for consultation, where it was described as a flu condition and treated with antibiotic (Gentamycin), but her condition has been getting worse.

Material and methods

Diagnostics: An x-ray of the lungs is performed, where a massive dexter pleural effusion is first detected. CT-thoraco-abdominal is performed where, in addition to massive dexter pleural effusion and basal pneumonic infiltration, the presence of renal abscess and dexter peri-renal is also observed.

Results

Therapeutic management: The dexter thoracic drain is placed, due to the omission of the radiological report for the renal and perirenal abscess, after 24 hours the patient begins to develop clinical sepsis, with temperature, hypotension and disorder of consciousness. Emergency fluid therapy is started based on the sepsis protocol. The abdominal surgeon was consulted and it was performed Nephrostomy.

Conclusion: After therapeutic and surgical measures in accordance with the clinic and hemodynamics, the patient after the seventh post-operative day is transferred to the ward in an improved clinical condition and after five days of stay in the ward she is discharged home. Checkup after one week: The patient is feeding herself, without any clinical signs of infection and with a noticeable improvement in mobility and general health.

015 Initial treatment and triage in massive multiple vehicle collision – a systematic review

A. Čustić¹, H. Beširević²

¹Institute for Emergency Medical Aid of Sarajevo Canton, Institute for Emergency Medical Aid of Sarajevo Canton, Sarajevo, Bosnia - Herzegovina ; ²Health Center "Cazin", Prehospital service of Health Center "Cazin", Cazin, Bosnia - Herzegovina

Background

The aim of this study is to analyze the most effective prehospital approach in the scenario of a mass traffic accident, in terms of triage and initial treatment. Prehospital treatment of injured patients should focus on stabilization of vital signs, and it is special challenge, because patients usually has to be treated under unfavorable conditions. Prehospital care in this case is not only a medical task, but an organizational challenge for all emergency workers. This study follows overview outlines of the modern emergency first aid approach.

Material and methods

This systematic review was conducted through a review of triage systems and initial treatment used in emergencies and disasters around the world. All

articles published in 21st century worldwide were searched based on several key terms including Triage, Disaster, Mass Casualty Incidents, Initial treatment, Prehospital treatment, Trauma patient - in Medlib, Scopus, Medline, Embase, Web of Science, Europepmc, PubMed, Cochrane Library, Science Direct, Google Scholar, Irandoc, Magiran, Iranmedex, and SID databases isolated and in combination using and/or conjunctions.

Results

The efficacy of triage systems was determined by the time and accuracy. The accuracy of each system varies depending on the situation, and more research is needed to determine which system is most effective. The study suggests that the mSTART system may be superior to the original START system in identifying patients with severe injuries, while the JumpStart system was found to be faster in assigning triage designations. The Care Flight Triage system was found to be reliable in one study, but less so in another.

All results demonstrate a decrease in odds of mortality when initial treatment and transfer time are shorter.

Conclusions

While triage systems are an essential tool in emergency medicine, the choice of system may depend on the specific situation and circumstances and more research is needed to determine which system is most effective in different scenarios. In order to quickly and efficiently take care of the injured in mass accidents there must be determined procedures of prehospital care. Every medical department must have a unique management center in these situations, and organize regularly education of its employees.

016 A 50 years young gentleman with a 3-day history of flank pain at a rural emergency department in the South East of Ireland - An interesting case study

L. Becher¹, W. Arshad²

¹St Vincent's Univeristy Hospital, Hepatobiliary Surgery, Dublin, Ireland ; ²St James Hospital- Dublin, Emergency Department, DUBLIN, Ireland

Background

Abdominal pain is one of the most common presentations in emergency departments worldwide. The myriad of presentations and the variety of intra-abdominal causes has always made it a diagnostic challenge for emergency physicians. Appendix being one of the frequent causes of abdominal pain, and the rarity of appendicular tumors makes this case study even more interesting. Primary colorectal Neuroendocrine Tumors (NETs) are the most common type of tumours affecting the appendix. However, the incidence of NETs in other regions of the lower gastrointestinal tract such as the sigmoid colon and rectum, is relatively uncommon.

Material and methods

A 50 years young gentleman presented to a regional hospital emergency department complaining of a 3 day history of left sided flank and abdominal pain with a change in regular bowel habits and nondescript weight loss over the previous 3 months. CT abdomen and pelvis showed a large mass in the sigmoid colon with multiple liver metastasis. The patient underwent Hartman's procedure followed by chemotherapy. Histology report revealed high grade Neuroendocrine Tumour. Further investigations were performed to exclude a primary source. Patient was discharged following this procedure to be followed up routinely in our surgical clinic. In the following 8 months, surveillance imaging and scopes showed progression of the disease.

Results

A review of literature revealed that an evidence-based definitive treatment guideline for primary colorectal neuroendocrine tumours does not seem to exist. This may be due to the low incidence of this disease. Though, when we compared contemporary literature, it suggested that a combination of surgical resection with adjuvant chemotherapy remains the first line treatment

Conclusions

Primary colorectal NETs are an aggressive type of tumour which usually have an indolent course of growth, therefore, mostly diagnosed at a later stage of progression. The case illustrates the diagnostic challenges in atypical presentations and a lack of consensus on evidence-based treatment guidelines; warranting further research and study.

017 A QIP to improve the compliance of NICE and Irish Association of Emergency Medicine guidelines for venous thromboembolism risk assessment and prophylaxis following lower limb immobilization in an inner city university hospital of Dublin

W. Arshad¹, T. Moore¹

¹st James Hospital- Dublin, Emergency Department, Dublin, Ireland

Background

Temporary limb immobilisation is implicated as a causative factor in 1.5-3% of all VTE (venous thrombo-embolic) events. It affects about 10 million worldwide annually. In 2007, about 1.1 million VTE events were reported in the EU with over 500,000 deaths, one-third of which were caused by P.E. VTE is associated with a huge disease burden and is one of the most frequent presentations in Emergency Departments. Despite evidence of correlation, at present no international consensus is established regarding regular pharmacological thromboprophylaxis for these patients. NICE (NG89) and Irish Association of Emergency Medicine IAEM guidelines recommend that all patients discharged from ED with lower limb immobilisation should have a documented VTE risk assessment and that all

patients should be given verbal and written advice on their increased risk of developing VTE.

Material and methods

2 cycles of audits were run and data for both cycles was collected retrospectively. A five-month period was utilized to put the interventions in place to improve the baseline measurements of the initial audit. A one-page proforma was designed to help document the risk assessment. In addition, a patient information leaflet was designed, specifically for patients with lower limb immobilization devices. These proformas and information leaflets were then printed and placed in all clinical areas. The same search criteria were used again after the implementation of quality improvement intervention for a 4-week period to identify compliance of NICE and IAEM guidelines.

Results

193 patient charts were reviewed in the cycle of the audit, after the implementation of designed interventions. A total of 54 patients were identified who were discharged from ED in lower limb immobilization device. Out of these 54:

8/54 had documented risk assessment (15%)

14/54 received verbal and written DVT information (26%)

This represented a significant improvement from first cycle of audit (0% had risk assessment, 14% had documented discussion of DVT, 10% had documented provision of written information.)

Conclusions

The authors were able to identify a room for improvement in the compliance of VTE risk assessment in patients with lower limb immobilization devices. An evidence based practical intervention was designed, implemented and proven to show improvement in the compliance with the standard guidelines. An overall improvement in the quality and safety of care in the target population of patients was achieved.

018 Diagnostic pitfall: a rare type of lactic acidosis

D. Mester¹, B.G. Fenyves¹, P. Reismann², P. Vass¹, G. Szabolcs¹, C. Varga¹

¹Semmelweis University, Department of Emergency Medicine, Budapest, Hungary ; ²Semmelweis University, Department of Internal Medicine, Budapest, Hungary

Background

We present a rare case of lactic acidosis seen in a glycogen storage disease type Ib (von Gierke disease) patient, thus summarizing the mechanism, most common triggers and adequate emergency treatment of the reported metabolic decompensation.

Material and methods

In this poster we go through a specific case of a von Gierke patient presented to our Department. She was the only patient in our database who had the mentioned disease. After picking the case we studied the relevant literature for more information.

Results

Glycogen storage disease type 1b is an autosomal recessive disorder caused by the deficiency of glucose-6-phosphate transporter. Therefore the transmission of glucose-6-phosphate from the cytoplasm to the endoplasmic reticulum is insufficient, so it can not be hydrolysed to glucose by the glucose-6-phosphatase located in the endoplasmic reticulum membrane. Not being converted to glucose, excess glucose-6-phosphate is shunted to alternative pathways including the glycolytic pathway, which leads to pyruvate production. However, the entering of pyruvate to the Krebs cycle is inhibited. As a result it converts to lactic acid and causes metabolic acidosis.

We report a case of a 35-year-old patient with glycogen storage disease type 1b, who presented to the Emergency Department of Semmelweis University with vomiting, weakness, abdominal pain, altered consciousness and tachypnea. Her initial arterial blood gas analysis showed severe lactic acidosis with the presence of hypoglycaemia. The patient was stabilized with the administration of intravenous infusions of crystalloid fluids, sodium bicarbonate and glucose, and was admitted to the Department of Internal Medicine in less than 7 hours after Emergency Department admission.

Conclusions

The knowledge and therefore possible early identification of this characteristic metabolic derailment is cardinal, as its treatment differs from other lactic acidosis therapy.

019 Psychological and non-technical aspects of resuscitation or how I learned to stop worrying and love the communication

Đ. Delalić¹, I. Prkačin²

¹University of Zagreb, School of Medicine, Zagreb, Croatia ; ²Clinical Hospital Merkur, Emergency Internal Medicine Clinic, Zagreb, Croatia

Background

The aim of this paper is to present and discuss the psychological aspects of resuscitation, primarily interpersonal communication, decision making, processing stress and optimizing team performance and introduce novel performance-enhancing concepts such as mental practice and the zero point survey.

Material and methods

A literature search was performed using the MEDLINE, Scopus, Web of Science and Google Scholar databases. Articles from both the medical

and clinical psychology journals were included. Besides the articles, books written by experts in decision-making from the field of clinical psychology were also analysed and referenced where appropriate.

Results

Using mental practice (a training method based on vividly imagining performing a procedure step-by-step or managing a demanding clinical scenario) with an adequate level of mental imagery was shown to significantly improve technical skills in surgeons and team-based skills during resuscitation in emergency physicians. The use of standardized checklists during procedures and management of certain clinical scenarios has been shown as beneficial, improving physician adherence to evidence-based practice, reducing the incidence of adverse events and, in some studies, mortality rates. Implementation of the "sterile cockpit" concept (minimizing distractions and refraining from communication unrelated to the procedure being performed) reduced the rate of medication errors by 40% in one study and the rate of communication errors during cardiac surgery by 37% in another. Using standardized communication and pre-briefing reduced the times to initiation of critical interventions such as positive pressure ventilation and chest compressions in simulated neonatal resuscitation.

Conclusions

While often neglected in formal training, non-technical aspects of resuscitation such as interpersonal communication, the presence of distractions, pre-briefing, having shared mental models etc are shown to improve outcomes and positively affect team performance during resuscitation. More attention should be paid to learning, understanding and improving cognitive models and processes underlying efficient communication and decision making in resuscitation.

020 A report case of ectopic pregnancy in ED

A. Kociaj¹, E. Serani², J. Kito³

¹Faculty of Medicine, Emergency department, Tirana, Albania ; ²Hygeia Hospital, Emergency department, Tirana, Albania ; ³QSUT, Emergency department, Tirana, Albania

Background

An ectopic pregnancy is a pregnancy that implants outside endometrial cavity. Diagnosis in ED: An evaluation for pregnancy for every fertile woman who presents to the ED with vaginal bleeding or abdominal pain is part of the initial examination. Physical exam findings of hypotension, tachycardia, moderate to severe abdominal or pelvic tenderness indicate rupture of ectopic pregnancy which requires an emergency surgery. Laboratory exams include beta-Hcg, progesterone level, complete blood count, Rh factor, liver and kidney function tests. Also a pelvic and transvaginal ultrasound can diagnose an ectopic pregnancy. Management: Resuscitate

hemodynamically unstable patients and obtain emergent consultation. Surgical management: Laparoscopy and laparotomy. Medical management includes Methotrexate intramuscular injections.

Material and methods

THE REPORT CASE: Patient L.C. 30 years old was presented to the pneumonologist of Kavaja's hospital for an outpatient visit for a pain in her right hemithorax. While she was waiting to be seen, she fainted outside the pneumonologist's cabinet so she was transferred immediately in the ED with the following complaints: a sharp pain in the right hemithorax and on the right side of the abdomen worsening while breathing, difficulty to move the right arm and weakness. These complaints have started 3 hours before she came to the pneumonologist. VITAL SIGNS: The arterial pressure was 90/60 mmHg, HR 74 bpm, SatO₂ 97%, RR 13/min. Physical exam: Her skin was pale and sweaty. Her respiratory examination was normal. Abdominal palpation was painful on the superior and inferior right side. She can not move her right arm and hardly breath because of the pain. The patient was completed with the following tests: CBC, liver and kidney function tests, chest x-ray, abdominal ultrasound and gynaecologist consultation. The level of haemoglobin was 8.5 ng/ml with a normal MCV. In abdominal ultrasound was seen haemorrhagic liquid from an ectopic pregnancy. The patient was diagnosed with a ruptured ectopic pregnancy.

Results

The patient was assisted with supportive therapy because she became hemodynamically unstable. She was transferred to the ED of Mother Teresa Hospital in Tirana, where the patient was hemotransfused and underwent emergency laparotomy because in Kavaja's hospital there is no surgeon and the operating room did not work.

Conclusions

A lesson to learn: A ruptured ectopic pregnancy with bizarre symptoms may be misdiagnosed in the ED. For every fertile woman you should suspect a possible pregnancy ectopic or not!

021 Beginners guide to Learning from Errors

G.Z. Xantus¹, L. Zavori²

¹University of Pecs, Emergency Department, PÉCS, Hungary ; ²University of Pecs, School of Medicine, Pecs, Hungary

Background

It might seem easy to spot a mistake (especially if not ours); learning from it though is probably more difficult. Medical mistakes, failures or errors, call it as you please, may change the life of patients (and staff), unfortunately in most cases for the worse. However, it does not necessarily must be that way. Errors may also provide invaluable opportunity to learn and improve/reflect on practice at both organisation and and/or individual level. To exploit

this opportunity, one must be able to steer away from the traditional "blame and shame" algorithm and practice the virtue of compassion with focus on rooms of development.

Material and methods

This concept is not new; however, in the day-to-day emergency medicine practice there is still a lot to improve.

Results

Practitioners might ask: "why to listen to this talk when there are books/articles in abundance on this topic?" Our title is tell-tale, instead of a boring run-through, the presentation (via a real-life clinical errors) offers a set of exercises to guarantee engagement while consolidating knowledge. Also, the we aim to compare the industrial (ergonomic) and the health care approach to investigate human errors. Aviation - a fast paced highly variable environment – might be comparable to the pace and variability of an Emergency Room. The authors hope that by the end of the lecture, listeners would look at errors/mistakes from a different perspective.

Conclusions

Learning from errors might also be the driving force needed to transform health care into partnership providing a safer environment for patients and staff alike. Moreover, it is key to combat loss of talents (due to fluctuation/burnout), mitigate the chance of harm and help to practice the *nil nocere* in a more conscientious way in the everyday practice.

EPofter Presentation: Disaster Medicine

022 Potential role of Unmanned Aerial Vehicle in Disaster medicine situations

T.O. Popa¹, P. Nedelea¹, M. Corlade¹, A. Haisan¹, E. Manolescu¹, C.D. Cimpoesu¹

¹University of Medicine and Pharmacy Grigore T. Popa Iasi, Emergency Medicine, Iasi, Romania

Background

Drones have evolved significantly in recent years, acquiring greater autonomy and carrier capacity. Therefore, drones can play a substantial role in civil medicine, especially in emergency situations. We want to present the real possibilities of using drones in field rescue operations, as well as in nonsegregated airspace, in order to obtain solutions for monitoring activities and aerial work in support of the public health system in crisis situations.

Material and methods

We("Elie Carafoli" National Aerospace Research and Development Institute (INCAS), Military Technical Academy Ferdinand I, University of Medicine and Pharmacy "Grigore T. Popa", Iași -Romania) develop an innovative UAV system that will ensure the

combined operation of several air and ground vectors as medical support elements, adapted for monitoring and surveillance actions, transport of medical materials, decontamination actions, with coordination from the command/support center. System components are represented by multi copter platforms for control, search, surveillance, and transport platform, with larger payload but slower speed, all of them being connected to a command and control center. The drones used in our project include capabilities of carrying medical devices and supplies necessary for emergency aid and integrate tele-medicine capabilities.

Results

We tested the system using a scenario that simulates an accident in a remote area, involving participants without any medical background. After the survey of the area using the advanced vector (and taking into account the information transmitted in parallel by the person in difficulty taken over by telephone by a medical operator), we launch the transport. Once landed, the witnesses were instructed on how to use the different medical devices and materials from the cargo, guided in real time by the medical dispatch team, connected to an audio/video feed using the drone equipment.

Conclusions

Drones are a promising option for improving the management of patient work and quality of life, especially for remote or underfunded areas with poor infrastructure.

In addition to surveillance, drones equipped with a two-way communication system can transmit messages and information useful to the medical process.

By integrating these capabilities in one aerial vehicle, we are able to simultaneously provide diagnostics tools to medical personnel and some basic first-aid medical materials to victims, in the end that the response time in critical medical situations can be considerably improved.

023 Acute Hemorrhagic Vocal Cord Polyp

E. Şakalar¹, Ş. Şakalar²

¹Dr. Emine Şakalar Private Clinic, ORL Clinic, Eskişehir, Turkey ; ²Yunus Emre State Hospital, Emergency Medicine, Eskişehir, Turkey

Background

Benign lesions of the vocal cord are among the most common pathologies other than inflammation. Clinical presentation is primarily with hoarseness and rarely with dyspnoea in large lesions. Vocal cord polyps are mostly unilateral. They are basically vascular pathologies caused by the increase in localized subepithelial oedema or the accumulation as a result of bleeding. Generally, the only complaints in patients are hoarseness and fatigue. Large polyps can cause dyspnoea, cough, dysphagia, and foreign body sensation. Diagnosis is made by laryngoscopic

examination. While treatment is possible by restricting the use of voice and limiting irritant factors in the early period, surgical intervention may be required in patients with pedicled, hemorrhagic or fusiform polyps.

Material and methods

30 years old male patient. On February 6, 2023, the patient, who was under the dent in the Kahramanmaraş earthquake, shouted to be heard from here, was taken out from under the dent, and then the voice assistants left. There is no shortness of breath, no sore throat, he received it medically but did not get a response. The patient who continued to have a voice for 1 month applied to us.

Results

On physical examination bilateral tympanic membrane examination is normal. The septum is in the middle. Oropharynx is natural. There is no palpable mass on the neck. In the flexible endoscopic examination, the nasopharynx is normal and the vocal cords are normal. There is a 1/3 posterior part of the left vocal cord hemorrhagic polyp. Since the patient did not benefit from previous medical treatment, surgery was recommended. Patient operation is planned.

Conclusions

Loud shouting triggers hemorrhagic polyp formation. It is held responsible for aetiology, especially in the acute period during earthquakes. In treatment, hemorrhagic polyps should be excised surgically.

024 Effects of the Six Cs psychological first aid model on acute stress responses in a simulated emergency

M. Farchi¹, Y. Gidron²

¹Tel-Hai College, Social Work, RAMAT HAGOLAN, Israel ; ²Haifa University, Faculty of nursing and health professions, Haifa, Israel

Background

Arrival to the emergency room (ER) can increase patients' and family members' stress levels. Thus, there is a need for short and effective form of PFA provided by ER staff members, to reduce acute stress responses (ASR). Past studies have shown that psychological interventions based on emotional expression does not help to regulate extreme emotional expressions nor to prevent post-traumatic stress disorder (PTSD). Alternatively, the Six Cs model adopts neuropsychological approach that focuses on Cognitive Communication, challenging for efficient activation, organizing the event's Chronological order and reduction the loneliness by Committing to stay with them. This study examined in an experimental design the effectiveness of the Six Cs model on reducing signs of ASR.

Material and methods

Sixty-three participants (mean age 41.8 years) voluntarily took part. They were randomly assigned to the Six Cs intervention (experimental condition) or to supportive emotional expression (control condition). They listened to a 3 min audio recording of a real emergency 911 phone call. Interventions (SIX Cs or emotional) were provided before and after the listening to the recording. Before, immediately after, and 5min after the recording, participants' anxiety, heart-rate variability (HRV) and mental resilience levels were measured.

Results

For all three outcomes, the Time x Group interactions were statistically significant. Following "simple effects" analyses revealed that The Six Cs participants showed lower anxiety and less reductions in HRV and resilience than controls immediately after the stressor. Furthermore, the Six Cs participants recovered faster on all three outcomes compared to controls, 5min after the stressor.

Conclusions

Conclusions: Six Cs model moderates people's ASR. Furthermore, the Six Cs method helps people to "bounce back" faster psychologically and neuro-physiologically. These findings support the use of the Six Cs model as a means for reducing ASR and increasing resilience, which is of high relevance to ER staff. *Ethical statement:* This study was approved by the School of Social work ethics committee - Tel-Hai College Approval number: 2-14-A-2018

025 Mass Casualty Management in the Emergency Department: a literature review

I. Marlafeka¹, D. Markopoulos², M. Triantafyllidou³, M. Christos⁴

¹University of Athens, Global Health and Disasters Medicine, PATRAS, Greece ; ²General Hospital on West Achaia, Internal Medicine, Aigio, Greece ; ³University Hospital of Ioannina, Nephrology, Ioannina, Greece ; ⁴University of Athens, Global Health and Disasters Medicine, Athens, Greece

Background

A disaster situation occurs when the need to seek medical care exceeds the capacity to provide it by the respective medical unit. The hospital faces a situation in which it has to offer care to a large number of patients, in a limited time, and this automatically institutes a disaster for it. Undoubtedly, the emergency department (ED) is the first line to deal with such situations. It is called to manage and deal with the victims of disasters, but at the same time the entire population that will take refuge there out of panic and in search of temporary shelter.

Material and methods

An extensive literature search was conducted on the internet and in electronic databases such as Pubmed and Google Scholar with the keywords "disaster plan", "mass casualty incident", "ED preparedness", "emergency response", "mass casualty management".

Results

The preparedness of the emergency department, and consequently the hospital is very important in order to deal with such an impending situation. It is necessary to have a disaster response plan so as the staff is well prepared to adapt to any disaster situation. This plan is multifaceted and includes clear guidelines on issues related to security, resource management, communication, staff roles and responsibilities and patient management so there is proper preparation of the institution to respond effectively to the needs arising from the event. The disaster manual must be written and available to everyone at all times. The staff must be well trained to implement it in times of crisis. The disaster Committee is responsible for organizing and developing tactics and procedures related to disaster preparedness. Activation of the plan and preparation of the hospital begins when the information is received from the Emergency Alert Center or the Emergency Center.

Conclusions

The ED preparedness for managing an impending disaster, should not seem like a hypothetical scenario but in the contrast, should be an integral part of its organization and management. Undoubtedly the disaster plan, and its complete and efficient drafting is the main guide for dealing with the crisis. All staff members must be aware of the plan and have been properly trained to implement it. The importance of regular disaster preparedness exercises should be highlighted, which should be carried out on a regular basis, so that all staff can participate and be trained, in cooperation with the social bodies dealing with disaster management.

EPoster Presentation: Paediatrics

026 The story of going from trauma to ischemic stroke: a case report

R.C. Yeşil¹, Ö. Kara¹, E. Özçete¹

¹Ege University, Emergency Department, Izmir, Turkey

Background

A stroke is an acute neurologic emergency with the need of urgent diagnosis and prompt treatment. A

stroke in paediatric patients is associated with significant morbidity and mortality. In this case report, we present a patient who was admitted to our emergency department with trauma and diagnosed with ischemic stroke.

Material and methods

22-month-old female patient applied to the emergency department with complaints of after falling from the toy bucket. Her vitals were stable. Direct X-ray was planned for the patient who could not move her right arm with the preliminary diagnosis of fracture/dislocation. Direct X-ray was normal. The patient was followed up for head trauma according to PECARN criteria. In the follow-up examination, right facial paralysis (+) ,right hemiparetic. The muscle strength on the right was evaluated as 3/5. Head and neck CT was performed on these findings. CT was normal, no acute occlusion was observed. The patient was consulted to neurosurgery clinic. Cranial MRI was planned for acute traumatic brain injury. Acute ischemia at the basal ganglia level on the left in the MRI. An emergency consultation was made to the paediatric neurology clinic. Anticoagulant and anti-edema treatment was planned for the patient. He was transferred to the paediatric intensive care unit.

Results

Ischemic stroke is a rare and overlooked diagnosis in children. In this case, the patient's presentation with trauma is another obstacle that makes it difficult to make a correct diagnosis. We wanted to share this case in order to bring to mind ischemic stroke as a very rare cause of trauma in children.

Conclusions

Acute ischemic stroke is an emergency of rare occurrence in children. Patients frequently present with nonspecific symptoms and signs; stroke severity at onset is often mild, and this leads to a delay in diagnosis. Based on adult data, intravenous, intraarterial thrombolysis and mechanical/endovascular thrombectomy could be considered for paediatric patients under 18 years with acute ischemic stroke. Antithrombotic therapy should be initiated in children with AIS as primary and secondary prevention. Aspirin or low molecular-weight heparin is recommended for initial treatment.

Our patient was examined after the development of neurological deficit in the post-traumatic follow-up. Bleeding was excluded by tomography and the diagnosis of acute ischemic stroke was made by MRI. Thrombolytic and thrombectomy treatment indications were not established. Anticoagulant treatment was planned for the patient.

027 Use of the CHIRPI questionnaire for the evaluation of parental use of the Internet as a source of information for acute paediatric conditions

D. Psoma^{1,2}, S. Ilia², G. Briassoulis², G. Notas¹

¹University of Crete School of Medicine and University Hospital of Heraklion, University Hospital of Heraklion Emergency Department, Heraklion, Greece ; ²University of Crete School of Medicine, Postgraduate program "Emergency and intensive care in children- adolescents- and young adults", Heraklion, Greece

Background

The Internet is nowadays the primary method of information exchange worldwide. Its use for search for health-related information (HRI) has become a common practice, especially among parents. However, the role of the Internet in the search for information related to health issues creates a strong scepticism as, on the one hand, it appears to serve by providing information that was not readily available in the past, and on the other hand, it threatens doctor-patient relationship and poses the risk of misinformation. The aim of the present study was the translation, validation, and pilot application of the CHIRPI questionnaire (Children's Health Internet Research, Parental Inventory) in the Greek language to assess the parental use of the Internet for information related to the health of their children when they have acute medical problems.

Material and methods

The questionnaire's translation, validation, and piloting were performed according to the internationally recommended procedure. The translated questionnaire was validated at the University General Hospital of Heraklion with a non-random sample of parents of children aged 0-10 years old admitted for hospitalization at the Paediatric Clinic from the Emergency Department for an acute condition. To calculate the internal consistency of the questions, we used Cronbach's Alpha, while the intraclass correlation coefficient measured test-retest reliability. Inter-rater reliability was tested with the kappa index.

Results

Based on Cronbach's Alpha coefficient, all subscales of the questionnaire had a coefficient >0.70, and the reliability of the questionnaire was calculated as 0.91. The intraclass correlation coefficient measured test-retest reliability was between 0.632-1.000 for individual questions. Kappa index for inter-rater reliability ranged from 0.615 to 1.00, suggesting that the questionnaire presented exceptional reliability between two repeated assessments. 92.7% of parents with a high educational level use the Internet for information regarding their child's illness. In contrast to people with a lower academic level, only 60% exhibit this behaviour (p<0.001).

Conclusions

The Greek translation of the "Children's Health Internet Research, Parental Inventory - CHIRPI"

Scale is a reliable and valid tool to assess parental use of Internet searches for information about their children's health. Higher academic training of parents is related to the more common use of the Internet for information related to acute paediatric problems.

EPoster Presentation: Pre-hospital

028 Organization of medical assistance of a big sport event EYOF 2019

A. Gavranović¹, N. Jonuz Gušić¹, K. Ljuhar¹

¹Emergency Medical Center Of Canton Sarajevo, Emergency Medical Center Of Canton Sarajevo "Prim Dr Silva Rizvanbegović", Sarajevo, Bosnia - Herzegovina

Background

The host of EYOF 2019 (European Youth Olympic Festival) Winter Youth Festival were cities of Sarajevo and East Sarajevo in the period from the 10th to the 15th February 2019. After the Olympic Games in 1984 this was the biggest sport event on this territory.

Material and methods

EYOF lasted six days, from the 10th till the 15th February 2019, and athletes competed in 8 sports. 911 athletes took part, 527 members of team officials, 412 accredited medias and broadcasts, over 750 volunteers. The medical sector of the Olympic Committee evaluated that for the need of medical assistance of this sport event only the Emergency Medical Center of Canton Sarajevo can answer in terms of trained medical personnel and in terms of equipment.

We had the honour to cover the medical assistance on all sport fields, in the Federation of Bosnia and Herzegovina as well as Republic Srpska. Our teams covered the medical assistance also in the Olympic village as on the opening and closing ceremonies.

Results

During 8 days 141 medical doctors and emergency medical technicians were engaged, 110 medical teams, and over 735 hours teams worked on medical assistance. In this period our Emergency medical Centre of canton Sarajevo continued their day to day work, providing emergency medical assistance to patients, our citizens.

Conclusions

Organization of medical assistance of a sport event that is this big was very demanding and complexes. We were honoured to be a part a to give our contribution and to send the world a picture that Bosnia and Herzegovina can organize a sport event of these proportions, and that we can respond to all requests.

029 Spine injury must always be considered in patients with multiple injuries.

C. Yuksen¹

¹Ramathibodi Hospital, Emergency medicine, BKK, Thailand

Background

Spine injury must always be considered in patients with multiple injuries. Approximately 55% of spinal injuries occur in the cervical region. In patients with potential spinal injuries, excessive manipulation, and inadequate spinal motion restriction can cause additional neurological damage and worsen the patient's outcome. Our study compares the efficacy of cervical spine immobilization while lifting, tilting, and transfer with long spinal board, sked stretcher, and vacuum mattress.

Methods: A cross-over design experimental study, testing was designed as a randomized, crossover test. Each volunteer was assigned a randomized sequence without the washout period effect of the spinal board, sked, and vacuum mattress configurations. In addition, the same test was repeated three times for each volunteer and each performance. Kinematic data were collected with **eight optoelectronic cameras at 200 Hz (BTS Bioengineering, Milan, Italy)** in triangular planes (lateral bending, flexion-extension, and axial rotation) while performing all three motions (static lift-hold, transfer, and 90° tilt)

Results: The spinal board is a standard immobilizer. In our scope, tilting causes motion the most angular c-spine motion in all planes, especially the axial rotation plane. Motion during long spinal board difference reached statistical significance in a vacuum mattress with lifting motion in flexion-extension ($P=0.029$) and axial rotation planes ($P=0.020$) while tilting to 90° was statistically significant for lateral bending plane ($P=0.026$). During transfer was statistically significant for flexion-extension ($P=0.042$) for the sked stretcher. Others were not significantly different.

Conclusion: In this study, we compare cervical spine motion after immobilization on a vacuum mattress, sked stretcher, and long spinal board. We suggest a customized procedure for each individual situation. In case of less moving during lifting and tilting, we suggest using a vacuum mattress to avoid pain, discomfort, and the risk of pressure ulcers.

030 The positive impact of risk predictions tools in daily practice in primary care in Tirana, in preventing cardiovascular events

M. Dibra¹, E. Petrela², A. Mema³, H. Engjellushe⁴, K. Hoti⁵

¹Laboratory Services- Private Practice, Laboratory Department, Tirana, Albania ; ²Head of Statistic Service UHC, Faculty of Medicine- University of Medicine, Tirana, Albania ; ³Health Care Center nr 4, Laboratory Department, Tirana, Albania ; ⁴Health Care Center nr3, Cardiology Department, Tirana, Albania ; ⁵Faculty of Medicine- University of Medicine-, Nephrology Department, Tirana, Albania

Background

Coronary artery disease remains the major cause of death in Europe, larger in middle-income regions of ESC. Albania is considered a high-risk country. Updates in guidelines, precise early diagnostics, new therapies created the goal to deliver more tailored strategy. CV risk prediction tools are developed to identify patients at risk, for daily clinical practice to better control the high-risk patients.

Material and methods

This study was performed in Primary care in Tirana, Albania. The aim of this study was to validate and increase the use of CV prediction tool (SCORE2) in daily clinical practice, to estimate 10-year CV risk in individuals without previous CVD or diabetes aged 40–69 years in Tirana. The study was based on a yearly regular check-up of people from ages 30-70 years old. From 150 adult patients selected randomly in primary care only 109 with no previous CV events, were included in the study. The study performed these criteria: age, smoking status, PAS, blood test for total Chol, LDL, HDL, fasting glycemia.

Results

In our research, we found that 67.9 % of them were with LDL > 115 mg/dl, 20% of them diagnosed for the first time with high LDL. Student's t-test was used for the epidemiologic analyses. The average estimated 10-year CVD risk SCORE2 of 3.22 for the group <50 years old, which was 26.6% of the total population in the study. The average estimated risk of 5.23 for the group >50 years old, which was 73.4% of the total population in the study. Risk SCORE2 estimated, measured in 2022 for the subgroup <50 years old was significantly lower than the subgroup >50 years old (3.22±2.08 vs 5.23±3.34). The reduction risk in 2023 in clinical practice was less than the reduction risk SCORE2 in 2022 calculated from the estimated tool. Although the patients have been treated with statins, the average LDL values continue to remain high, 130.92±36.84 mg/dl. Highlighting the need to add treatment as ezetimibe, PCSK-9, siRNA.

Conclusions

The study attributes the importance and the unmet need to use SCORE2 in daily clinical practice, the high impact of yearly check-ups in primary care services, Individual 10-year risk estimations for (recurrent) major CV events strengthen the need for better management for the high-risk pop, benefit from

early preventive treatment, such as Chol-lowering, and add on therapy, high level of statin discontinuation. Improving health prognosis, adherence to lifestyle and long-term treatment, CV prevention in time, facilitating the strategy at the primary care level.

031 Diagnosing and managing acute medical disorders in rural East Africa

C. Kelly¹, L. Black²

¹James Cook University Hospital, Rheumatology, Gateshead, United Kingdom ; ²University of Manchester, Medicine, Manchester, United Kingdom

Background

The burden of medical disease outside a hospital setting in East Africa is largely unknown. Evidence suggests that the pattern of disease may be changing rapidly from a dominance of infectious disease. This may have a substantial impact on health care outcomes with adverse social and economic consequences. Data is urgently required to facilitate the planning, provision and funding of the services needed to meet population requirements here. The need is likely to be greatest among the poorer members of the community. This study describes the case mix of medical disorders encountered among people across five regions who had no previous access to clinical care in East Africa.

Material and methods

Over a four-week period in 2022, a series of clinics in five separate locations were undertaken across impoverished areas of Zambia and Kenya. These ranged from city slums to isolated rural communities. Clinics were held in community settings such as school classrooms and were entirely open access. Demographic features for every consultation, were recorded, along with the diagnosis and intervention. The percentage of people consulting with each category of medical disease was calculated and the case mix of acute medical disorders described, along with interventions provided.

Results

A total of 1089 community consultations were performed. The population was 56% female with a median age of 28 (range 0-90) years. Among children (under 18 years), upper and lower respiratory tract and gastrointestinal tract infections were common. In adult consultations, the musculoskeletal system [MSK] (25%), infectious disease (22%), respiratory disease (18%) and cardiovascular disease (12%) dominated. MSK issues were influenced by location, rising from 8% in urban areas to 52% in rural sites. The commonest MSK diagnosis was osteoarthritis (50%), with 3% having evidence of inflammatory arthritis. Therapeutic intervention was provided in 62% and procedures were performed in 11%.

Conclusions The pattern of adult medical consultations disease within poorer community dwellers in East Africa appears to be changing. Infectious diseases accounted for fewer

consultations than did MSK disease, while respiratory, gastrointestinal and cardiovascular disease were all common. Acute osteoarthritis of the knee was a common presentation and was associated with a high level of pain and disability. Resources and training need considerable improvement and investment to ensure that the changing pattern of medical consultations can be supported.

EPoster Presentation: Resuscitation and Airway

032 Respiratory distress revealing a severe form of angioneurotic edema

S. Khabouchi¹

¹Charles Nicole Hospital, Emergency Department, Tunis, Tunisia

Background

Morbidity and mortality from bradykinin-mediated (BK) angioedema (AE) are considerable. If the upper respiratory tract is involved, this is associated with emergency treatment and admission to the intensive care department.

Material and methods

A case report about angioneurotic oedema admitted to the emergency room with respiratory distress.

Results

We report the case of a 43 year-old woman with a medical history of angioneurotic oedema followed up in internal medicine department and an operated ovarian cyst. She presented to the ED with facial and upper airways edema and dyspnea. Physical examination revealed high risk airways, polypnea (RR=30), edema of the face, eyes and upper airways and the SpO₂ was 98%. Hemodynamic parameters were stable: The SAP was 130 mmHg and the DBP was 70 mmHg with a heart rate of 100 bpm. The neurological examination revealed a GCS=15/15 without neurological deficit. The initial therapeutic behaviour was to administer corticosteroids intravenously, bronchodilators and adrenalin aerosol. The respiratory state was worsening and the patient has become bradypneic and cyanosed. Due to signs of respiratory exhaustion and extensive edema, the patient was intubated for respiratory distress. Blood tests showed a normal renal function, negative CRP, normocytic normochromic anaemia (HB=9g/dl), Hyperleukocytosis (WBC=13000) without hypereosinophilia. Initial blood gas revealed hypoxemia (paO₂=50mmHg) and lactic acidosis (pH=7.17, lactates=4.57). Then normal blood gas within one hour of mechanical ventilation. The therapeutic conduct was to continue corticosteroids and bronchodilators intravenously, and to administer Tranexamic Acid (Exacyl®) 1g then 1g by syringe pump over 6 hours. The evolution is marked by the regression of the edema of face and upper airways.

The patient was then transferred in intensive care unit.

Conclusions

The knowledge of bradykinin's angioedema and their treatment by emergency physicians is a determining factor in the management of these patients.

033 Predictive factors for mortality in severe SARS-CoV2 pneumonia

S. Khabouchi¹

¹Charles Nicole Hospital, Emergency Department, Tunis, Tunisia

Background

SARS-CoV2 is responsible in the most forms for severe pneumonia with high morbidity and mortality. Several factors have been related to the severity such as obesity, comorbidities especially cardiovascular and respiratory, and biological factors such as hyponatremia. Goal of the study: To identify risk factors for in-hospital mortality in patients hospitalized in the emergency department for severe SARS-CoV2 pneumonia.

Material and methods

Observational, prospective, single-center study of patients hospitalized with severe SARS-CoV2 pneumonia during the Delta wave from January to June 2021

Results

Inclusion of 84 patients. The mean age was 66±13 years with extremes ranging from 34 to 77 years with a male predominance (46%) and a gender-ratio of 1.21. The most noted past medical history were: smoking (21.4%), COPD (9.5%), hypertension (52.4%), heart failure (2.4%), coronary insufficiency (9.5%), diabetes (43%) and renal failure (13%). Thirty-four patients (44%) were previously affected by COVID-19. The clinical examination of the patients showed a respiratory rate ranging from 16 to 48 with a mean of 25±9cpm, SpO₂ on AA ranged from 40 to 92% with a mean of 81±10%. The SAP values were between 90 and 200 mmHg with a mean of 126±18 and the mean ADP is estimated to be 73 mmHg. Positive diagnosis was made by Rt-PCR in 51 patients (60.7%) and by the rapid antigenic test in 12 patients (14.3%). Chest CT was done in 44 patients (52.4%) and showed involvement: moderate (7%), extensive (13%), severe (23.8%), critical (4.8%). The biological signs were (n, %): hyperleukocytosis (22, 19%), lymphopenia (58, 69%), elevated D-dimer (20, 24%), elevated CRP (57, 68%) and lactate determination was positive in 27 patients (32%). The main means of oxygenation were nasal cannula (10.7%), simple face mask (25%), and high concentration mask (56%). Non-invasive ventilation was used in 22 patients (26.2%) and mechanical ventilation in 7 patients (8.3%). The length of stay in the emergency department varied from 4 to 360

hours with a median of 48 hours with an intra-hospital mortality of 25% (n=21).

Factors associated with in-hospital mortality with statistically significant difference were: chronic renal failure (p=0.045), hyponatremia (p=0.041), and high D.Dimers (p=0.035).

Conclusions

In-hospital mortality in patients hospitalized with severe SARS-CoV2 pneumonia appears to be higher in patients with chronic renal failure, high D.Dimers, or hyponatremia on admission.

034 Effects of the COVID-19 pandemic on incidence and outcomes of OHCA: Field experience of the Institute for emergency medical assistance of Canton Sarajevo

A. Bečar Alijević¹, A. Alijević¹

¹Institute for emergency medical assistance of Canton Sarajevo, Institute For Emergency Medical Assistance Of Canton Sarajevo, Sarajevo, Bosnia - Herzegovina

Background

The COVID-19 pandemic caused death and suffering throughout the world and pushed healthcare systems to their limits. Our aim with this study was to present and compare the incidence and outcomes of OHCA before and during the COVID-19 pandemic that were resuscitated by the teams of the Institute for emergency medical assistance of Canton Sarajevo.

Material and methods

We collected data from the official reports of resuscitation efforts of the Institute for the time period 2017-2022. This included the number of resuscitation efforts for OHCA, their initial rhythm and outcomes. The outcomes were considered successful based on achieving a return of spontaneous circulation(ROSC) and maintaining it until hospital admission. We also collected the same data for comparison from the annual reports of the CARES registry for the time period of 2017-2021. Period from January 1, 2017 until December 31, 2019 is considered as a period before the start of COVID-19 pandemic, and the period from January 1, 2020 until December 31, 2022 as a period during COVID-19 pandemic.

Results

Before the start of the COVID-19 pandemic, our Institute handled, in average, 256 resuscitations per year for OHCA with the average percentage of successful resuscitations being 19.9%. For the same period, CARES registry reported an average percentage of successful resuscitations of 31.1%. During the first two years of COVID-19 pandemic, we had in average 179.5 resuscitations per year with a percentage of successful resuscitations of 16.7% whilst CARES registry showed an average percentage of successful resuscitations for the same period of 22.9%. During the year 2022 we had 215

resuscitations for OHCA with the average percentage of successful resuscitations being 23.2%.

Our results showed a noticeable dip in the number of initiated resuscitations for OHCA cases with the start of the COVID-19 pandemic, a drop of 30% in the first two years of COVID-19 as well as a decrease of successful outcomes by 3.2% and increase by 3.3% in the following 2022 year compared to the 2017-2019 period.

Conclusions

We believe the difficulty of resuscitation in out-of-hospital cases in regards of adhering to safety protocols, lack of personnel, chronic fatigue and stress led to fewer initiations of resuscitation and decreased chances of achieving ROSC. Further research considering these pitfalls should lead to more practical guidelines for safer resuscitations in OHCA cases during a pandemic.

035 Outcomes of CPR in cases with initial non shockable rhythms in prehospital condition in Canton Sarajevo

A. Alijević¹, J. Husejinbegović Musić¹

¹Institute for emergency medical assistance of Canton Sarajevo, Institute for emergency medical assistance of Canton Sarajevo, Sarajevo, Bosnia - Herzegovina

Background

Out-of-hospital cardiac arrest (OHCA) still presents a major public health problem worldwide despite all the advances in ACLS. Non-shockable rhythms (asystole or pulseless electrical activity) during OHCA are the most common initial rhythms encountered by the Institute for emergency medical assistance of Canton Sarajevo. Our retrospective study aimed to investigate the outcomes of OHCA patients with initial non-shockable rhythm who were resuscitated by our staff during 2018-2022.

Material and methods

We used the official database of our Institute which contained information of the number of resuscitation attempts and their outcomes during 2018-2022. For the purpose of this study, achieving return of spontaneous circulation(ROSC) with a successful hospital admission was considered a successful resuscitation.

Results

Our registry had documented 1069 resuscitation efforts from January 1, 2018 until December 31, 2022. During this 5-year period the data showed our Institute resuscitations, on average, were presented with an initial non-shockable rhythm of 65.6% and of those we had an average rate of successful resuscitation efforts of 7.1%. For comparison, based on CARES annual report for 2021, they encountered 83% of OHCA with a non-shockable initial rhythm and of those they had an average rate of successful resuscitation efforts of 19.3%.

Conclusions

Generally, OHCA patients presenting with initial non-shockable rhythm are considered to have poor prognosis, with low rates of return of spontaneous circulation and survival. Our Institute puts a lot of emphasis on regular annual training in ACLS skills, organising lectures and workshops with the highest standards. While still not all the way there, we believe these efforts will bring our rate of successful resuscitation efforts of non-shockable rhythms to a global standard.

036 Time-dependent changes of Neuron-Specific Enolase and S100B neurobiomarkers serum concentration under peri-arrest period

A. Papp¹, C. Kristály¹, L.L. Horváth¹, L. Béri¹, B. Kittka², I. Horváth², Z. Nagy³, T. Nagy³, Z. Vámos^{1,4}

¹Medical University of Pécs, Department of Anaesthesiology and Intensive Therapy, pécs, Hungary ; ²Medical University of Pécs, Heart Institute, Pécs, Hungary ; ³Medical University of Pécs, Department of Laboratory Medicine, Pécs, Hungary ; ⁴National Ambulance Service, National Ambulance Service, Pécs, Hungary

Background

Neurological prognostic factors after low flow / no flow period in patients with cardiac arrest are still the subject of continuous research to determine diagnostic and therapeutic strategies after successful cardiopulmonary resuscitation (CPR). Regarding the novel CPR guidelines ,serum levels of neuroprotein, neuron-specific enolase (NSE) and S100 β are considered promising candidates for neurological predictors. However, how the serum level changes under indicated short peri-arrest period are less known.

We hypothesized that during the permanent pacemaker induced cardiac arrest, and central hypoperfusion period, the Neuron Specific Enolase and S100 β protein serum concentrations change as a function of time.

Material and methods

Inclusion criteria: patients with severe aortic valvular stenosis, without previous neurological disease. Exclusion criteria: tumor and/or nervous system pathology in the anamnesis. The cardiac arrest (CA) was performed during catheter aortic valve implantation (TAVI) elicit by VVI temporary pacemaker (frequency: 270-300 beats/min). Arterial blood samples were taken 20 minutes before CA (0.), then in the 8. (I.), 15 (II.) seconds under CA, then 20minutes after the return of spontaneous circulation (ROSC). Serum NSE, S100 β , and troponin were determined from a conventional laboratory testing methods.

Results

Patients epidemiology: female:13 ,male: 8, age of 55-82 y.o. NSE from the prearrest point until the II. then,

decreases to ROSC (O.: 17 ± 2 vs. II.: 37 ± 3 ug/ml vs. ROSC: $19 \text{ ml} \pm 1\text{ug/ml}$, $p>0.05$). S100 β concentration increases from the prearrest point until the I. then does not change to the II. point, then increases until ROSC (O.: 70 ± 10 vs. I.: 110 ± 20 ng/ml vs.II.: 110 ± 20 ng/ml vs. ROSC: 170 ± 40 ng/ml, $p>0.05$). Troponin concentration increases from the prearrest point until the I. then does not change to the II. point, then increases until ROSC (O.: 18 ± 2 vs. I.: 62 ± 16 ng/ml vs. II.: 64 ± 16 ng/ml vs. ROSC: 110 ± 25 ng/ml, $p>0.05$).

Conclusions

In the peri-arrest period, the NSE serum concentration elicits an inverse „U” shape, however,S100 β and troponin show a logarithmic tendency. In such circumstances, the findings of the present study should aid future investigators in examining the clinical usefulness of these markers and the determination of cut-off values.

037 Psychologic support for people witnessing cardiac arrest

G.Z. Xantus¹, L. Zavori²

¹University of Pecs, Emergency Department, PÉCS, Hungary ; ²University of Pecs, School of Medicine, Pécs, Hungary

Background: Evidence suggests that protocolised resuscitation has improved the survival of both in- and out-of-hospital adult cardiac arrest. It is traumatizing for anyone to witness the resuscitation attempts of their loved one, let alone for lay people sometimes leaving them with guilt, anxiety/depression or even post-traumatic stress disorder (PTSD).

Objective: We designed a multicentre qualitative/quantitative study to investigate the need for potential psychological support for relatives who witnessed cardiac arrest of a family member. The level of mental health burden 3-6 months after the event would be compared in lay members of public witnessing resuscitation of their relative vs those who lost their kins unwitnessed; succumbing to a chronic knowingly fatal illness. We also aim to compare the element of psychological distress related to in-hospital vs out-of-hospital cardiac arrest and if the development/extent of potential pathological psychological consequences would depend on the short-term outcome of the resuscitation.

Methods: Structured phone interview with a predesigned questionnaire to assess the level of mental-health burden using the “Generalised Anxiety and Depression Scale” and “Impact of Event Scale”; both validated in emergency settings.

Results

Relevance: The science and practice of cardiopulmonary resuscitation is understandably focused on the victim and the rescuers mainly. A few

researchers had expanded their scope of interest to the relatives however, their quality of life is likely to be significantly affected witnessing the death of their loved ones.

Conclusion: If our research demonstrates increased prevalence of anxiety/depression and/or PTSD in those left behind, we could initiate psychological support from the emergency department right after resuscitation.

EPoster Presentation: Trauma

038 Clinical approach to patients which we treated due to acute compartment syndrome as a result of trauma associated by crush and injury after earthquake and our method of shoelaces suture technique after fasciotomy

H. Yağar¹, E.K. Bulut¹, M.E. Çanakçı², A. Mert¹, M. Aydın¹

¹Nigde Omer Halisdemir University Training And Research Hospital, Orthopedics And Traumatology, Niğde, Turkey ; ²Eskişehir Osmangazi Üniversitesi, Emergency Medicine, Eskişehir, Turkey

Background

The aim of this study is to share the results of the follow-up treatment which we applied in our clinic to the patients who developed compartment syndrome as a result of crushing and crush injury after the great earthquake disaster in our country.

Material and methods

We applied fasciotomy surgery to our earthquake victims who were suspected of acute compartment syndrome, after they were diagnosed with compartment syndrome after compartment pressure measurement, followed by a fasciotomy and then a gradual approximation with shoelaces suturing method. After the earthquake approximately 100 patients applied to our clinic from the 36th hour to the 144th hour. In 21 of these patients, acute compartment syndrome was considered and fasciotomy surgeries were performed by immediate compartment pressure measurement. 15 of 21 patients underwent right or left lower extremity fasciotomy (6 of these patients had both thigh and cruris fasciotomy), 3 had bilateral lower extremity fasciotomy, 2 had ipsilateral lower extremity and forearm fasciotomy, and 1 had isolated anterior col fasciotomy. In our clinic, where multiple fasciotomies were performed on multiple patients, we followed up with shoelaces suturing method, as it facilitates the follow-up of fasciotomies, ease of wound care and final surgery, provides gradual closure and provides closure with a single final surgery.

Results

We provided adequate treatment to our patients after fast decision making, correct and adequate fasciotomy application. In one of our patients, compartment syndrome after crush syndrome and fasciotomy was tried as a last resort because it was able to reach our clinic in the last period, and then amputation was performed. Wound infection developed in 4 of the patients who underwent fasciotomy, and clinical treatment was improved with debridement treatment and antibiotherapy. Three of the patients followed up for acute compartment syndrome had a history of dialysis due to renal failure without consulting our clinic.

Conclusions

As a result, we tried to provide adequate treatment to many of our patients under disaster conditions as a result of careful approach to compartment syndrome and quick decision making. The shoelace technique we used in fasciotomy follow-up facilitated our patient follow-up and provided relief in the operation of our clinic since it reduced the number of surgeries. As a result of our fast and adequate fasciotomy applications, multiorgan failure and permanent systemic problems were prevented in our patients,

039 The traffic disaster accidents 2017-2022 and emergency prehospital actions at the location

I. Bajrami¹, A. Pacolli¹

¹Emergency Medical Center Of Prishtina, Emergency Medical Center Of Prishtina, Prishtina, Kosovo

Background

The Human body injuries in traffic accidents usually occur far from the health institution locations and we treat them as a particular importance.

In these situations, the life of people injured by the accident often depends on the people who are participating in the traffic, their knowledge, willingness and the application of the knowledge to offer the basic help.

If there is no preventive measures taken, it is expected that in 2030, traffic accidents will be the leading cause of death.

Material and methods: The data for this work at QMU were extracted from medical reports, protocols, database of calls to the 194 line and archival material. We are in cooperation with the Emergency Clinic of ÇKUK and the Kosovo Police - Prishtina Regional Unit. We applied a retrospective research method followed by a descriptive analytical method.

Results: According to Police statistics, during 2017-2022, the largest number of traffic accidents in Kosovo occurred during 2021 with 21.274 cases, 99 accidents were fatal and 111 deaths. The lowest number of accidents was recorded in 2020 with 13,874 cases, 76 were fatal and 81 deaths.

The largest number of interventions at the Emergency Medicine Center in Pristina, 2017-2022, was during 2018 with 1283 cases and the lowest number was during 2020 with 843 in traffic accident interventions.

Conclusion: The main factor in traffic accidents remains the human factor. Traffic accidents increase the incidence of death and disability in the general population. The statistical data during 2017-2022, shows that we have the largest number of accidents during the summer, July, August and September, explained by the increase the flow of vehicles in traffic, because of compatriots arrival from the diaspora.

040 Electrical injury and related injuries Case presentation

L. Hoti¹, S. Bajçinca²

¹University Clinical Center of Kosova, Emergency, Fushe Kosove, Kosovo ; ²University Clinical Center of Kosova, Emergency, Prishtine, Kosovo

Background

Management of a trauma case following electric arch coupled with injuries, such as burns, cardiac and traumatic repercussions due to falling from heights

Material and methods

Primary and secondary survey examinations, vital signs monitoring, laboratory and imaging data were used

Results

Based on initial information from physical examinations and vital signs monitoring, the patient presents with injuries from the fall and electric shock with unstable parameters. During primary and secondary survey, continuous re-evaluations and emergency treatment, the patient remains relatively stable with tendencies of occasional deterioration of his conditions. Data on rhythm disorders are obtained during monitoring and ECG assessments, and during the secondary survey the antiarrhythmic emergency treatment was initiated immediately. While imaging with FAST exam, X-ray, all body CT scan and laboratory analysis we've identified intraabdominal bleeding, appropriate emergency treatment was performed, and emergency surgery was requested

Conclusions

Except of local treatment of burns by electric arch, we should always consider cardiac dysrhythmias, electrolytic disorders and traumatic injuries

041 Traumatic Cataract: a review

A. Rrusta¹

¹Italian Eye Hospital, Ophthalmology, Prishtine, Kosovo

Background

Ocular trauma is relatively common affecting males and young ages more often. Cataract formation is common following ocular trauma. A cataract is a clouding of the normal clear crystalline lens that may occur after blunt or penetrating ocular trauma that disrupts the normal lens fibres. The purpose of the study is to review the current approach to the diagnosis and management of traumatic cataract formation.

Material and methods

A review of the most updated current approaches and literature in the management of traumatic cataract including diagnosis and treatment.

Results

The epidemiology and pathophysiology of traumatic cataract formation. Diagnosis and surgical indications and planning according to time of trauma and age of patient. Surgical techniques, primary vs secondary cataract extraction and paediatric considerations are discussed.

Conclusions

Ocular trauma is a major cause of disability and loss of vision. It is important to identify cataract formation early so that a rational approach can be taken in its treatment.