
MAEMC Abstracts

NONINVASIVE VENTILATION IN ELDERLY PEOPLE AT THE EMERGENCY DEPARTMENT: EPIDEMIOLOGICAL CHARACTERISTICS AND CLINICAL RESULTS



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Body text:

Background: In elderly people, non-invasive ventilation (NIV) could be a good alternative to procure a respiratory support, avoiding as much as possible the complications of invasive ventilation.

Methods and Results: This retrospective study was conducted at the emergency department of La Rabta (Tunisia). 66 old patients (≥ 65 ans) requiring NIV for acute respiratory failure (ARF) were included. Mean age was 76 years (± 7). The median Charlson index was 5. ARF was related to acute heart failure in 68%, acute exacerbation of chronic obstructive pulmonary disease in 53% and pneumonia in 39% of cases. 48% had more than one etiologic diagnosis. Hypercapnic acute respiratory failure was observed in 61%. On starting NIV, the average pH was 7.31 (± 0.11) and PaCO₂ 56 mmHg (± 21). After NIV, the average pH was 7.38 (± 0.11) and PaCO₂ 53 mmHg (± 26). Improvement of pH was significant ($p < 0.05$). 61% of patients were discharged at home, 9% were admitted to intensive care unit. Invasive ventilation was performed in 4%. 23% died. Success of NIV was observed in 69% of patients. Conclusion: NIV can be of a great interest in elderly people. Our study showed a significative improvement of pH after NVI and a clinical success in 69% of patients.

Did the research involve human subjects, including review of existing records/material?: Yes

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FACTORS AFFECTING CARDIOVERSION AND DEFIBRILLATION SUCCESS RATE



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Body text:

Background: Electrical cardioversion and defibrillation are common procedures in the management of patients with cardiac arrhythmias. There are a number of variables that influence the outcome of a cardioversion and/or defibrillation attempt. We attempt to identify factors affecting cardioversion and defibrillation success rate.

Methods. Five major databases were systematically searched for relevant studies published up to July 2018. These studies were then assessed for level of evidence and risk of bias. Device-related variables included electrodes (i.e. position, and size), and energy delivered (i.e. joules, type of waveform). Patient-related variables included transthoracic impedance, and type of arrhythmia. Results. Sinus rhythm was restored in 87% using an anteroposterior position vs. 76% with anterolateral orientation ($n = 301$). Larger pad surface area decreased resistance; one shock (200 joules) was successful in 82% (two large pads (12 cm) vs. 31% (two small pads 8 cm) ($n = 105$). Defibrillation energies were the same for monophasic vs. biphasic waveforms (200, 200, 360 joules) in patients with ventricular fibrillation ($n = 168$). Patients with atrial fibrillation receiving biphasic waveform cardioversion were associated with greater first shock efficacy (60% vs. 22%); fewer total shocks (1.7 vs. 2.8); less energy (217 vs. 548 joules) vs. monophasic cardioversion ($n = 210$). Repetitive 3-minute interval shocks decreased transthoracic impedance greater than repetitive shocks at 15 or 60 second intervals. Patients who received transthoracic termination of monomorphic ventricular tachycardia required lower energy (70 to 100 joules), while polymorphic ventricular tachycardia required higher energy (150 to 200 joules) ($n = 203$).

Conclusion. It is important to become familiar with current cardioversion devices, correct size and placement of paddles, and the appropriate energy setting to ensure effective shock administration. While traditional monophasic waveform cardioverters were commonly used, biphasic waveform

cardioversion are equally safe and effective, using lower energy, and fewer shocks for dysrhythmias.

Did the research involve human subjects, including review of existing records/material?: Yes

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MEDECINS SANS FRONTIERES EXPERIENCE TRAUMA FRONTLINE: TRIAGE MANAGEMENT IN A STABILIZATION CENTER IN MOSUL, IRAQ



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Body text:

Background: In response to the Mosul crisis, Iraq in 2017, MSF set up a stabilization centre in Hamam Al-Alil, 20 kilometres south of Mosul. The centre was a Mobile Unit Surgical Trailer (MUST) based in containers, deployed over 5 months to allow life-saving emergency interventions. It relied on an effective triage and referral system.

Methods and results: Routinely collected data were analysed retrospectively to describe the cases treated at the MUST emergency department, from February to July 2017. A total of 3899 patients were seen. Their mean age was of 24 years, with 64% \geq 15 years and 35% female. Based on the START triage, 16% were red at arrival, 62% yellow and 22% green. 33% of cases were referred after stabilization, 18% needed urgent surgery, and <1% died, most of whom (95%) were red at presentation. Overall, 55% of the cases seen were trauma due to violence. Of them, 47% were referred, 25% were admitted for surgery and the others discharged.

Conclusion: A robust triage system allowed a rapid and reliable segregation of patients in life- and non-life-threatening, low intra-op mortality and a better use of the scarce resources available in this crisis context.

Did the research involve human subjects, including review of existing records/material?: No

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CHARACTERISTICS AND DISPOSITIONAL DETERMINANTS OF PSYCHIATRIC EMERGENCIES IN A UNIVERSITY HOSPITAL IN BEIRUT



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Background: Patients with psychiatric complaints often present to the Emergency Department for treatment. One of the main concerns is the risk of harm to self or others. These patients might require hospitalization, while others can be discharged home. In countries that do not have comprehensive socialized medical systems, psychiatric emergencies are sometimes faced with inappropriate disposition. Little is known about psychiatric emergencies and their dispositional determinants in Lebanon. The study aims to discuss psychiatric emergencies at AUBMC, identify determinants for patient disposition, and determine factors preventing appropriate disposition.

Methods and Results: This is a retrospective, single-center, chart-review study of patients who presented to the Emergency Department between July 1, 2016 until December 31, 2016. Data was obtained from the medical records. The MRNs of all patients requiring a formal psychiatry consultation in the ED were collected from logs of psychiatry residents who assess patients in the ED. Chart reviews from the medical records took place according to these patients' MRNs. The total number of ED visits requiring psychiatric consultation in the six-month period was 195 visits (6.7 per thousand ED visits). The most common diagnosis was depression (75 patients) followed by anxiety (61 patients). 107 patients (54.8%) required admission for adequate treatment; however only 72 (67.3%) of those were actually admitted, and the rest (32.7%) left the hospital against medical advice.

Conclusion: Increased hospital admission was associated with being a female (OR= 3.042), having family history of psychiatric disease (OR= 2.040) and having suicidal ideations (OR=12.949). In a country that has inadequate health coverage, financial coverage can also be a determining factor in whether or not patients get the admission they need.

Did the research involve human subjects, including review of existing records/material?: Yes

INCIDENCE, RISK FACTORS AND OUTCOMES OF SUBARACHNOID HEMORRHAGE IN A TERTIARY CARE CENTER IN LEBANON: A CROSS-SECTIONAL RETROSPECTIVE STUDY



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Background: Subarachnoid hemorrhage (SAH) is a life threatening condition, characterized by bleeding into the subarachnoid space. Early diagnosis is essential since mortality and morbidity are time dependent with mortality reaching up to 50%. Most data regarding non-traumatic SAH is from the U.S. and Europe and there is a paucity of studies looking at populations in the Middle East and in particular Lebanon. This study aims at describing demographics, management, and outcomes of presentations of