ABSTRACTS PRESENTED AT

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108617

MODALITY: E-POSTER YOUNG RESEARCHER - NON-CASE REPORT
CATEGORY: CARDIOVASCULAR INTENSIVE CARE/ CARDIOVASCULAR EMERGENCIES

TITLE: ASSOCIATION BETWEEN LUNG ULTRASOUND FINDINGS, SCAI SHOCK CLASSIFICATION AND CLINICAL OUTCOMES IN PATIENTS WITH ST SEGMENT ELEVATION MYOCARDIAL INFARCTION

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Background: Incidence and mortality in cardiogenic shock (CS) remains high despite current management. Improvements in early diagnosis and risk stratification are warranted in order to prevent CS in ST segment elevation myocardial infarction (STEMI). Objectives: Our aim is to evaluate the association between pulmonary congestion evaluated by lung ultrasound (LUS), Society for Cardiovascular Angiography and Interventions (SCAI) shock classification and clinical outcomes in patients admitted with STEMI. Methods: Prospective cohort study of STEMI patients treated in a tertiary care hospital in Brazil. LUS was performed immediately before coronary angiography. Development of cardiogenic shock in the first 24 hours and in-hospital mortality were retrospectively evaluated Results: A total of 582 included patients. Mean age was 61±12 years and 373 (64.1%) were male. After 24 hours of admission, SCAI shock stage A was present in 361 (62%) patients, while 115 (19.8%) were class B, 44 (7.6%) class C, 58 (10%) class D, and 4 (0.7%) class E. There was an association between increasing number of positive LUS zones and the SCAI shock classification (P<0.001). We also found strong association between number of positive zones in lung ultrasound and CS (OR = 1.4 (95% CI 1.3-1.5, P<0.001), SCAI shock stages (OR 1.3 (95% CI 1.2-1.4, P<0.001) and in-hospital mortality (OR 1.3 (95% CI 1.2-1.4, P<0.001). Additionally, presence three or more positive LUS zones was associated with increased mortality, P (log-rank)<0.001. Conclusions: Lung congestion evaluated by admission LUS was significantly associated with increment in SCAI shock stage, development of CS and in-hospital mortality in STEMI patients.
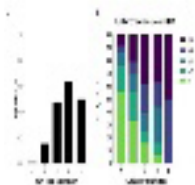
108636

MODALITY: E-POSTER YOUNG RESEARCHER - NON-CASE REPORT
CATEGORY: CONGENITAL AND PEDIATRIC CARDIOLOGY

TITLE: CARDIAC ARREST ON PERSONS UNDER THE AGE OF 20, FROM 1996 TO 2019

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Introduction: Cardiac arrest (CA), in pediatrics, has high mortality and severe neurological sequelae. Information on the causes and mechanisms of death in children under 20 can provide theoretical support for improving health in childhood and adolescence. Objectives: To carry out a population analysis of mortality rates (MR) from basic and multiple causes of death, in children under 20 years of age, of both sexes, from 1996 to 2019, and to identify the frequency of description of CA in death certificates (DC) of these individuals and their places of occurrence, to promote strategies to improve the prevention of deaths. Method: An ecological time-series study, from 1996 to 2019, of children deaths under 20 years of age, in which MR and we evaluated proportional mortality (PM) due to underlying cause of death. We analyzed the percentage of CA description in the DC (any lines) and the place of occurrence. Also, we described MR per 100,000 inhabitants and PM due to underlying cause of death under 20 years of age, by sex, and age group. The percentages of death from underlying causes were calculated when CA was described in any line of parts I and II of the DC, by age groups, and the percentages of death from underlying causes, according to their place of occurrence. Data were taken from DATASUS, IBGE and SINASC. Results: In Brazil, from 1996 to 2019, there were 2,151,716 deaths in children under 20 years of age, with a MR of 134.38 per 100,000 inhabitants, with higher death rates among male neonates. Two hundred forty-nine thousand three hundred thirty-four had CA described in any DC line, corresponding to 11.6% of these deaths. We defined four patterns for the underlying cause of death when CA in the death sequence. In the neonatal period, perinatal causes; in children under five years, respiratory system diseases; 5 to 14 years, neoplastic and hematological; and in adolescents aged 15 to 19, external causes. The central place of occurrence of these deaths was in the hospital. Conclusion: The highest MR of underlying causes of death, in those under 20 years of age, in Brazil, from 1996 to 2019, was due to perinatal and external causes. When we evaluated multiple causes of death, the leading underlying causes of CA were respiratory, hematological, and neoplastic diseases, with higher in-hospital mortality. It is crucial to understand deaths sequence events and implement teaching strategies to pediatric cardiopulmonary resuscitation.

108644

MODALITY: E-POSTER YOUNG RESEARCHER - NON-CASE REPORT CATEGORY: NURSING

TITLE: PATIENTS' PERCEPTION OF EDUCATIONAL AND MUSICAL NURSING INTERVENTION BEFORE EMERGENCY CARDIAC CATHETERIZATION

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Objective: To evaluate the experience and acceptability of an educational and musical nursing intervention to reduce anxiety in patients undergoing unscheduled catheterization. Method: Qualitative study was carried out in a highly specialized cardiology hospital in the city of São Paulo. In the study, 15 patients diagnosed with the acute coronary syndrome were treated and submitted to unscheduled catheterization at the emergency unit. All patients received the nursing intervention, consisting of a musical and educational component called Education and Music Intervention to Reduce Anxiety (EMIRA), prepared according to the methodological framework of complex intervention by Sidani and Braden. The interviews were recorded, transcribed, and analyzed according to Bardin's content analysis. Data collection took place from October to September 2021. Results: The analysis of the interviews allowed the grouping into three categories, 1) EMIRA Intervention: a new experience that helps reduce anxiety; 2) EMIRA intervention: an experience that generates satisfaction; and 3) EMIRA Intervention: anxiety alleviating experience. Participants have suggested using EMIRA to promote a feeling of relaxation and satisfaction. Conclusion: EMIRA seems to be an acceptable and potentially relaxing intervention for patients awaiting unscheduled catheterization in the emergency department.

108674

MODALITY: E-POSTER YOUNG RESEARCHER - NON-CASE REPORT
CATEGORY: HEART FAILURE/ CARDIOMYOPATHY/ TRANSPLANT

TITLE: PREVALENCE OF REDUCED LEFT VENTRICULAR EJECTION FRACTION IN THE BRAZILIAN AMAZON BASIN AND DIAGNOSTIC USEFULNESS OF B-LINES BY LUNG ULTRASOUND

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Background: B-lines by lung ultrasound (LUS) indicate presence of extravascular lung water and has been associated with reduced left ventricular ejection fraction (LVEF) in patients with heart failure. We aimed to describe the prevalence of reduced LVEF in a community sample without a history of heart failure and to evaluate the usefulness of B-lines by LUS in this setting. Methods: In a cross-sectional study we examined a random sample of adults (≥18 years) from a community in the Northwestern part of the Brazilian Amazon (June-December 2020). All participants underwent state-of-the art echocardiographic image acquisition and 8-zone LUS by a medical doctor. No patients had known heart failure, recent chest trauma or clinical signs of infectious disease. Reduced LVEF was determined by Simpson's biplane method and defined as <45%. We assessed the mean of B-lines across all zones. Logistic regression models were applied to investigate reduced LVEF and B-lines. Results: A total of 551 participants were included (39% men, mean 41±15 years) who had a mean LVEF of 57±5%. From this group 16 (3%) had LVEF <45%, corresponding to a prevalence of 29/1000 adults with reduced LVEF. Participants with reduced LVEF were older, had higher blood pressure and more frequently smoked. Number of B-lines by LUS was significantly higher among participants with reduced LVEF compared to those with normal LVEF (mean B-lines 4 vs 1, P=0.002). In logistic regression models, adjusted for clinical and cardiovascular risk factors, presence of a single B-line was associated with 1.18 higher odds of having reduced LVEF (95%CI 1.06-1.31, P=0.002). Conclusion: The prevalence of reduced LVEF was 29/1000 adults in a community from the Amazon Basin without a known history of heart failure. B-lines by LUS were significantly more present in participants with reduced LVEF. As LUS is feasible in resource limited settings, may be conducted by non-medical personnel and by the use of handheld devices, this may be useful to identify patients with reduced LVEF in rural communities where echocardiography is not available.