

Trabalhos Científicos

Título: Outcomes And Risk Factors In Children With Septic Shock And Multiple Organ Dysfunction Syndrome In A Middle-Income Setting: A Single-Center Observational Study

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Resumo: Objectives: To evaluate the risk factors and mortality associated with septic shock and multiple organ dysfunction syndrome (MODS) and to examine associations with unfavorable outcomes among pediatric patients from the Brazilian Amazon. Design and Methods: A matched nested case-control, observational, single-center study was conducted between January 1, 2016, and December 31, 2019. All children admitted to the pediatric intensive care unit (PICU) with sepsis, as defined in the inclusion criteria, were included. The selected cases consisted of patients with septic shock with MODS, while the control group consisted of children who were randomly chosen (1:2 ratio) among patients admitted to the PICU, matched for age and sex. Qualified students collected the data while being “blinded” to the research hypotheses. Measurements and Main Results: There was an association between septic shock with MODS and pH, sodium bicarbonate and base excess, hyponatremia, hypocalcemia, and hyperchloremia. In patients with septic shock with or without MODS, hypocalcemia, hyperchloremia, hypomagnesemia, hypokalemia, and hypophosphatemia were associated with mortality. There was an association between low A/G, elevated anion gap, and hyperlactatemia in patients with septic shock and non-surviving MODS. Infections by gram-negative organisms, changes in coagulation markers, inadequate nutritional status, pulmonary impairment requiring invasive support, and the presence of acute respiratory distress syndrome were associated with an increased risk of septic shock with MODS and mortality. Conclusions: In our study, septic shock with MODS associated with death affected male infants with previous comorbidities, hospitalized for clinical reasons, and coming from other services. The main factors associated with a higher risk of septic shock with MODS in this study were the origin of external services.