

The Severity Rate of Pre-Operative Acidosis Affecting Mortality in Patients with Abdominal Trauma Who Underwent Exploratory Laparotomy Ath. Adam Malik General Hospital Medan

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Abstract : Introduction Abdominal Trauma is in the third place among the traumatic incident and around 25% of the cases requires surgical procedure. The mortality in trauma patients known as lethal triad of death including hypothermia, coagulopathy, and metabolic acidosis. In trauma, metabolic acidosis occurs due to metabolism change, from aerobic metabolism to anaerobic metabolism resulting lactic acid accumulation. The aim of this study is to find out the correlation between severity of pre-operative acidosis and mortality rate in abdominal trauma patients who underwent exploratory laparotomy performed at RSUP H. Adam Malik Medan.

Methods The design of this study is a retrospective descriptive analytic study. The samples were 64 cases from the medical records of patients diagnosed with abdominal injury and underwent exploratory laparotomy at the digestive surgery division of RSUP H Adam Malik Medan during the period January 2011 to December 2013. The data was analyzed using Chi Square test.

Results From the 64 cases of abdominal trauma that underwent exploratory laparotomy, the mortality rate is 25 cases (39,1%). The exploratory laparotomy was performed in 61 cases (95,3%) and 3 cases (4,7%) with damage control surgery. The severity of acidosis showed mild acidosis in 55 cases (85,9%) and severe acidosis in 9 cases (14,1%). The results of Chi Square show a correlation between severity of preoperative acidosis and mortality in patients with abdominal trauma performed exploratory laparotomy ($p = 0,001$).

Conclusion The study shows significant relationship between the severity of pre-operative acidosis with mortality in patients with abdominal trauma who performed exploratory laparotomy in RSUP H. Adam Malik Medan.

Keywords : trauma; abdomen; acidosis; laparotomy.