

Abstract Type : Poster

Abstract Submission No. : PO-1261

Acute Kidney Injury in Traumatic Patients with Coagulopathy

Orapan Kongsap¹, Chennet Phonphet², Jom Suwanno²

¹Department of Surgery Intensive Care Unit, Suratthani Hospital, Thailand

²Department of School of Nursing, Walailak University, Thailand

Objectives: Acute kidney injury (AKI) is an uncommon but serious complication after trauma that is independently associated with increased morbidity and mortality. The objective of this study was to explore relationship between renal function with coagulopathy in traumatic patients.

Methods: The retrospective study design and second data analysis from the patient's health records were collected. A total of 253 traumatic patients who were admitted at tertiary hospital, South of Thailand during January 1 to December 31, 2016. The documentation includes detailed information on demographics, injury pattern and laboratory test for renal function and blood clotting. Definition of coagulopathy were platelets count <100,000 /uL and/or prothrombin time >13.3 second and/or activated partial thromboplastin time >60 second and/or international normalized ratio >1.2. Continuous normally distributed data were analyzed using the t-test. The chi-squared test was used for category data where appropriate. Statistical significance was defined by p-value of .05

Results: Most of the patients in this study were men 74.3%, age between 17-82 years, an average age of 35.53±14.32 years, blunt injury 77.5%, cause of injury was traffic accident 72.3% and coagulopathy rate was 45.5%. We did observe significant differences between the traumatic patients with and without coagulopathy in some aspects of the renal function. Creatinine (.93±.26 vs .82±.21, p=.000) and glomerular filtration rate (100.23±23.76 vs 107.87±17.60, p=.005) were differed of statistical significant but blood urea nitrogen wasn't significant (12.13±4.13 vs 11.83±3.37, p=.529). Finally, we compared outcome between both groups. The mortality (1.2% vs 11.9%, p=.000) and days in hospital (11.62±12.48 vs 8.75±7.35, p=.024) were statistically different between both groups.

Conclusions: Coagulopathy was a significant factor for uncontrolled bleeding or recurrent bleeding and lead to multiple organs failure such as renal failure. Resuscitation and management of life-threatening injuries as they were identified are essential to maximize patient survival and protect multiple organ failure.