ASSOCIATION OF HEPATIC DYSFUNCTION AND THE MORTALITY IN CRITICALLY ILL PATIENTS ON CONTINUOUS RENAL REPLACEMENT THERAPY

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Objectives: Acute kidney injury (AKI) is a common clinical problem and has a high mortality rate in hospitalized patient. Many severe AKI patients has received renal replacement therapy and the patients with hemodynamic instability receive the continuous renal replacement therapy (CRRT). Risk factors of mortality of these patients with CRRT was reported such as liver cirrhosis, congestive heart failure and sepsis on a few study. So, we analyzed the clinical manifestation associated with the 28-day mortality on the CRRT of our hospital.

Methods: We retrospectively studied on adult patients who received CRRT in the intensive care unit (ICU) on our hospital from March 5, 2016 through December 31, 2016. They were divided two groups based on the 28-day mortality. The clinical manifestation associated with the 28-day mortality was analyzed. The value was expressed by median(range).

Results: 41 patients who received CRRT were enrolled. The median age of patients is 70(18-89) year-old and men were 73.1% (n=30). All patients had stage 3 AKI and oliguria. 28-day mortality rate was 68.3% and the septic shock was the main cause of CRRT (n=25, 61%). The platelet count was lower in the non-survivor group compared with survivor group, significantly [93(11-320) vs. 216(54-353) ×10³/mm³, P=0.01)]. The serum cholesterol level was lower in the non-survivor group and the serum total bilirubin level was higher in the non-survivor group (mg/dl) [115(73-235) vs. 87(29-211) mg/dL, P=0.02; 0.57(0.14-5.02) vs. 1.58(0.31-30.69) mg/dL, p=0.03]. The level of serum gamma-glutamyl transferase, other liver function test and lactate dehydrogenase and the prevalence of underlying liver cirrhosis was higher in the non-survivor group than survivor group insignificantly.

Conclusions: Hepatic dysfunction was the major cause of the mortality even though underlying liver disease was not common in these patients with CRRT in our hospital. We need to manage more carefully patients who have hepatic dysfunction with AKI.