PREDICTORS AND OUTCOME OF ACUTE KIDNEY INJURY IN CRITICALLY ILL PATIENTS

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Background: Acute kidney injury (AKI) is a frequent complication of all hospital admissions, especially those in intensive care units (ICU) and is an independent poor prognostic marker. Nevertheless, information on factors predicting AKI and influencing the survival is limited.

Aim: The present study aims to elucidate the incidence and predictors of AKI and mortality in internal medicine ICU.

Methods: This is a single-center retrospective study conducted in an internal medicine ICU. 414 consecutive patients hospitalized for longer than two days were screened. Patients with previous renal disease within first 48 hours of addmission were excluded; remaining 304 patients were enrolled. Acute kidney injury was defined based on AKIN criteria during ICU stay. Baseline characteristics, laboratory examinations at admission to ICU, Glascow coma score in first 24 hour, APACHE II and SOFA scores were noted. Independent predictors for AKI development and ICU mortality were defined with logistic regression analysis by using backward method.

Conclusion: One third of our patients developed AKI during ICU stay and it was significantly associated with increased mortality. It has been showed that lower serum albumin and higher uric acid levels at admisson predict AKI development; while pre-existing hypertension and AKI development emerged as independent predictors of ICU mortality. APACHE II score and need of MV were found as predictors of both AKI development and ICU mortality.