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급성신부전 치료로 지속적신대체요법 시작 시점으로 소변량의 역할

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Urine Output as a Prognostic Factor in Initiating Continuous Renal Replacement Therapy for Acute Kidney Injury

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Introduction: Although some studies have found that early initiation of continuous renal replacement therapy (CRRT) is associated with better prognosis, no consensus exists on the best timing to start CRRT to improve patient outcome. We investigated whether the timing of CRRT initiation was relevant to overall mortality and explored which factors at the time of CRRT initiation were associated with better outcomes in critically ill acute kidney injury (AKI) patients.
Methods: A total of 361 patients, who received CRRT for AKI between 2009 and 2011, were collected retrospectively, and divided into two groups based on median BUN values and 6-hour urine immediately before CRRT start. The impact of the timing of CRRT initiation on 28-day all-cause mortality was compared between the groups and determination of early CRRT initiation as an independent risk factor was by the Cox proportional hazards model.
Results: When the timing of CRRT initiation was stratified by 6-hour urine output, crude 28-day mortality rates were significantly lower in the early CRRT group than the late CRRT group. In contrast, clinical outcomes were not different between early and late CRRT groups classified by BUN levels. Cox regression analysis revealed that the crude 28-day mortality risk was significantly lower in the early CRRT group stratified by 6-hour urine output, even after adjusting for age, gender, mean arterial pressure, serum biomarkers, and APACHE II and SOFA scores.
Conclusions: Urine output might be more useful than BUN concentration in making decisions about the timing of CRRT initiation in critically ill AKI patients.

Key Words: 급성신부전, 지속적신대체요법, 소변량
AKI, CRRT, Urine Output