

## 지속성 신대체요법을 받은 패혈증에 동반된 급성신손상 환자의 임상 양상과 예후 인자

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### Clinical Characteristics and Prognostic Predictors in Sepsis-Induced Acute Kidney Injury Patients Treated by Continuous Renal Replacement Therapy

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**Background:** The incidence of acute kidney injury (AKI) in the intensive care unit (ICU) is increasing recently. AKI is a common complication of sepsis and carries a high mortality. Continuous renal replacement therapy (CRRT) has been widely used for treating critically ill patients with sepsis-induced AKI as a preferable tool to intermittent hemodialysis because of the hemodynamic tolerance. This study was performed to identify clinical characteristics and prognostic predictors in critically ill sepsis-induced AKI patients treated by CRRT at ICU in our hospital.

**Patients & Methods:** This study retrospectively analyzed the data of one hundred patients who had diagnosed to the sepsis-induced AKI and been treated by CRRT from January, 2007 to February, 2010 in GSNU. There were excluded patients who had stopped CRRT within 48 hours.

**Results:** Of the 100 cases who treated by CRRT, 64 were males and 36 were females. The average age was 63.7 years (range 29–88 years). Primary sources of infections : lung (52%), heart (5%), Urinary tract (10%), gastrointestinal tract (14%), musculoskeletal (7%), others (12%). The average of initial APACHE II score were  $21.9 \pm 6.5$  and  $26.5 \pm 5.4$  in survivors and non-survivors, respectively. Univariate analyses showed that higher APACHE II score, and serum bicarbonate level 48 hours after CRRT was more higher in survivors than non-survivors. Multivariate analyses revealed that APACHE II score (OR: 1.16; 95% CI 1.04–1.36;  $p=0.04$ ), pre-CRRT oliguria (OR: 12.31; 95% CI 1.19–125.46;  $p<0.0013$ ) were independent predictors for the prediction of mortality.

**Conclusion:** Important prognostic factors were APACHE II score and the existence of oliguria before CRRT in this study. Using these prognostic predictors in critically ill patients with sepsis-induced AKI will be helpful for the early and appropriate management.

**Key Words:** 지속성신대체요법, 패혈증, 급성신손상  
CRRT, Sepsis, Acute kidney injury

**Table 1. Comparison of Initial Clinical and Laboratory Variables of Survivors and Non-survivors in Sepsis Patients\***

	Survivors (N=20)	Non-survivors (N=80)	p-value
SBP (mmHg)	119.0±31.2	111.4±31.9	NS
DBP (mmHg)	76.2±21.0	69.2±18.4	NS
MAP (mmHg)	90.4±23.9	83.3±22.3	NS
Laboratory data			
BUN (mg/dL)	49.8±27.0	36.5±26.8	NS
Creatinine (mg/dL)	4.7±4.7	2.4±2.2	0.002
Sodium (mmol/L)	134.1±5.0	133.9±5.1	NS
Potassium (mmol/L)	4.5±0.9	4.4±1.0	NS
Albumin (g/dL)	2.8±0.7	2.7±0.6	NS
pH	7.29±0.18	7.31±0.13	NS
Bicarbonate (mmol/L)	18.9±2.4	19.0±3.6	NS
Prothrombin time (sec)	17.7±3.2	19.9±5.7	NS
Fibrinogen (mg/dL)	338.1±163.5	342.0±184.1	NS

\*Variables are expressed as mean±SD