

## 패혈성 급성 신손상의 임상적 특징 및 결과

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### Clinical Characteristics and Outcomes of Septic Acute Kidney Injury

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**Purpose:** This study aimed to determine the clinical characteristics and outcomes of critically ill patients with septic acute kidney injury (AKI) in comparison with non-septic AKI.

**Methods:** We retrospectively collected data of patients with AKI who were  $\geq 18$  years of age and admitted to the intensive care unit (ICU) for  $\geq 24$  hours between 1 April 2007 and 31 December 2009, and compared the clinical characteristics and outcomes of patients with and without sepsis. Outcome measures were in-hospital mortality, renal replacement therapy (RRT) requirements, duration of ICU and hospital stays, and renal recovery. We analyzed predictors of mortality using logistic regression.

**Results:** Of the 1075 patients, 333 (30.9%) had AKI, as defined by the RIFLE criteria, and 134 (40.2%) of them had AKI with sepsis. The predominant septic foci were thoracic (46.3%) and abdominal (29.9%). Septic AKI had significantly higher SAPS II and SOFA scores, and required more mechanical ventilation and vasoactive drugs than non-septic AKI. Furthermore, a significantly greater proportion of patients with septic AKI progressed to the failure category of the RIFLE classification compared to patients with non-septic AKI (62.7% versus 44.7%). Septic compared with non-septic AKI had a higher in-hospital mortality and required more RRT (63.2% versus 35.7%,  $p < 0.001$ ; 44.7% versus 23.2%,  $p < 0.001$ , respectively). Amongst survivors, patients with septic AKI were more likely to recover renal function. Finally, a higher SAPS II score, and a greater requirement for vasoactive drugs and RRT were independently associated with increased in-hospital mortality in septic AKI after adjustment for other covariates.

**Conclusion:** The incidence of AKI in ICU patients is high, for which sepsis is a leading contributing factor. Patients with septic AKI are sicker and have a higher burden of illness with an increased risk of death compared to patients with non-septic AKI, but renal function recovers better in survivors of septic AKI. Further studies are necessary to determine the clinical factors and actual pathophysiology related to outcomes and also to find valid treatment modalities in septic AKI.

**Key Words:** 패혈증, 급성 신손상, 사망률

Sepsis, Acute kidney injury, Mortality