

## 지속적 신대체요법을 시행받는 패혈성 급성신손상 환자에서 사망 예측 인자로서 델타 뉴트로필 지표의 의의

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### Delta Neutrophil Index as an Independent Predictor of Mortality in Septic Acute Kidney Injury Patients Undergoing Continuous Renal Replacement Therapy

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**Background:** Delta Neutrophil Index (DNI) indicates the fraction of circulating immature granulocytes, which is known to increase in infectious and/or septic conditions. However, to date, the relationship between DNI and mortality in septic acute kidney injury (AKI) patients has not been fully elucidated. Therefore, we assessed whether DNI was associated with mortality in septic AKI patients requiring continuous renal replacement therapy (CRRT).

**Methods:** We retrospectively enrolled 285 patients with septic AKI who were treated with CRRT at Yonsei University Health System between August 2009 and September 2012. Patients were dichotomized into high and low DNI groups based on median value of DNI at the time of CRRT initiation. Log-rank test and Cox proportional hazards analysis were conducted to evaluate the prognostic value of DNI for 28-day all-cause mortality.

**Result:** The mean age of the enrolled patients was 61.0±14.7 years and 180 patients (63.2%) were male. During the study period, 192 patients (67.1%) died. Mortality rates during 28-day were significantly greater in the high DNI group compared to low DNI group (log rank test, p<0.01). In multivariate Cox proportional hazard analysis, DNI at CRRT initiation was an independent predictor for 28-day mortality after adjusting age, gender, mean arterial blood pressure, hemoglobin, platelet, albumin, PT, aPTT, and APACHE II and SOFA scores (hazard ratio: 1.010, 95% confidence interval: 1.001-1.019, p=0.035).

**Conclusion:** This study demonstrated that DNI at CRRT initiation could be a useful predictor for mortality in septic AKI patients requiring CRRT.

**Key Words:** 델타 뉴트로필 지표, 사망 예측인자, 패혈성 급성신손상  
Delta neutrophil index, Predictor for mortality, Septic AKI