

## 복수를 동반한 간경병증환자에서 매우 낮은 혈청 크레아티닌 수치가 사망율에 미치는 영향

한림대학교성심병원 신장내과

송영림, 김좌경, 김성균

### Low Serum Creatinine Levels and a Small Increase in Creatinine Predict Mortality in Cirrhotic Patients with Ascites

Young Rim Song, Jwa-Kyung Kim, Sung Gyun Kim

Division of Nephrology Hallym University Sacred Heart Hospital

**Background and Aims:** Although renal dysfunction is a known prognostic factor in cirrhotic patients, serum creatinine is an inaccurate marker for glomerular filtration rate, and the optimum diagnostic criteria for acute kidney injury (AKI) are unclear in these patients. We hypothesized that very low serum creatinine levels might be associated with other clinical factors besides renal function, and that small changes in serum creatinine could affect the long-term outcomes of cirrhotic patients.

**Methods:** We performed a retrospective study of 130 patients with cirrhosis who were hospitalized for the management of ascites. We analyzed the optimal cutoff values for low baseline creatinine and AKI to predict all-cause mortality. The absolute changes and percentage changes in serum creatinine were calculated according to the peak and initial baseline creatinine levels during hospital stays.

**Results:** Forty-three patients died during the follow-up period. Baseline creatinine was significantly lower but the absolute changes and percentage changes in serum creatinine were significantly higher in patients who died compared with those who survived. The optimal cutoff value to predict mortality was a baseline creatinine level of 0.5 mg/dL, and a  $\geq 40\%$  increase in creatinine indicated AKI. Multivariate analysis showed that a baseline serum creatinine  $< 0.5$  mg/dL on admission (hazard ratio [HR] 2.41, 95% confidence interval [CI] 1.13-5.11;  $p=0.022$ ) and AKI (HR 2.25, 95% CI 1.15-4.43;  $p=0.018$ ) were significantly associated with increased all-cause mortality.

**Conclusions:** Low baseline creatinine and AKI during hospitalization were independent predictors of all-cause mortality in patients with cirrhosis and ascites.

**Key Words:** 간경변증, 혈청크레아티닌, 급성신손상  
Creatinine, Acute kidney injury, Cirrhosis