

복막투석을 시작하는 환자에서 좌심실동심성형태의 예후인자적 의미

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Left Ventricular Concentric Geometry is a More Important Prognostic Factor than Left Ventricular Mass Index in Incident Peritoneal Dialysis Patients

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Cardiovascular disease is the leading cause of death in patients with end-stage renal disease (ESRD). Previous studies have demonstrated that echocardiographic estimates of left ventricular (LV) indices are important prognostic factors in ESRD patients, but it is not fully explored which index is a more relevant predictor for the outcomes in incident peritoneal dialysis (PD) patients. This study was undertaken to investigate the prognostic value of ejection fraction (EF), LV mass index (LVMI), and LV geometric pattern in new PD patients. Two hundred and ninety nine patients, who underwent echocardiography within 2 weeks after the start of PD, were included. The mean age was 56.2 ± 12.5 years with sex ratio of 1.3:1. One hundred and forty four patients were diabetes and the mean Charlson comorbidity index was 3.6 ± 1.6 . The mean EF was $53.5 \pm 15.6\%$ and the mean LVMI 145.4 ± 44.5 g/m². LV hypertrophy (LVMI >115 g/m² in men and >95 g/m² in women) were present in 243 patients, among whom 47.8% had LV concentric geometry (relative wall thickness >0.42). During the follow-up period (the median follow-up duration: 25.8 months), 90 cardiovascular events and 75 deaths were observed. Multivariate Cox regression analysis revealed that EF (1% decrease) was an independent predictor for all-cause mortality, cardiovascular mortality, and fatal and nonfatal cardiovascular event (HR [95% CI]: 1.04 [1.02–1.06], 1.04 [1.02–1.05], and 1.03 [1.01–1.04], respectively), even after adjustment for age, sex, Charlson comorbidity index, hemoglobin and total cholesterol levels, systolic blood pressure, and body mass index. The presence of LV concentric geometry was also an independent predictor for all cause mortality (HR [95% CI]: 1.95 [1.08–3.53]). In contrast, LVMI did not predict any outcome. In conclusion, the presence of LV concentric geometry is a more important factor than LVMI in predicting the outcome of new PD patients.

Key Words: 복막투석, 좌심실동심성형태, 심초음파

Peritoneal dialysis, Left ventricular geometry, Echocardiogram