

복막투석환자에서 심혈관 질환예측인자로서 복막 알부민 청소률의 가치?

순천향대학교 부천병원 신장내과

박무용, 조혜민, 최수정, 김진국, 황승덕

Peritoneal Albumin Clearance Predicts Cardiovascular Risk in Peritoneal Dialysis Patients

Mooyong Park, Hye Min Jo, Soo Jeong Choi, Jin Kuk Kim, Seung Duk Hwang

Soonchunhyang University Hospital, Bucheon, Department of Nephrology

Introduction and aims: Patients starting peritoneal dialysis (PD) with active cardiovascular disease (CVD) show higher protein and albumin levels in peritoneal effluent. PWV is known as a strong independent predictor of cardiovascular mortality. We hypothesize that peritoneal albumin excretion in PD patients, can predict cardiovascular disease in new PD patients.

Methods: We performed a prospective observational study of 35 patients from a single center receiving stable PD for more than 6 months. We studied peritoneal protein and albumin excretion in these new PD patients and repeated the studies every 6 month. These patients were screened for subclinical peripheral artery disease (PAD) using the ankle-brachial index (ABI) measurement. The brachial-ankle pulse wave velocity (baPWV) was measured by using an ABI-form device. ABI and PWV were measured at the time of starting PD and at 6, 12, and 24 months thereafter.

Results: The average duration of follow-up was 26.5±17.6 months. Of these patients, 4 patients have coronary artery disease (CAD) and none have PAD. Initial peritoneal albumin excretion measured at first month of PD, was higher in CAD patients compared to non-CAD patients ($p=0.013$). Moreover, the increment was maintained through follow-up period (mean albumin excretion was higher in CAD and non-CAD, $p=0.037$). But, protein excretion was not different between groups. At 12 month PWV, peritoneal albumin excretion was elevated in upper 3rd tertile PWV group compared to lower two tertile groups ($p=0.042$ and $p=0.034$). During the study period, mean albumin excretion was directly related with PWV measured at first year after starting dialysis ($r=0.39$, $p=0.017$). Moreover, mean albumin excretion was inversely correlated with ABI during the first year of dialysis ($r=-0.67$, $p=0.003$).

Conclusions: Increased peritoneal albumin excretion was an important predictive marker and risk factor for developing cardiovascular disease in PD patients.

Key Words: 복막투석, 알부민, 심혈관질환

Peritoneal dialysis, Albumin, Cardiovascular disease