

지속성 외래 복막투석환자에서 수면장애의 빈도와 연관인자 분석

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Sleep Disordered Breathing is Common and Associated with Residual Renal Function in Prevalent Peritoneal Dialysis Patients

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Background: Patients with dialysis have an increased risk of sleep-disordered breathing (SDB) and SDB is associated with morbidity and mortality in these population. There was an improvement in SDB during nightly peritoneal dialysis (NPD) due to better fluid and uremic clearance and reduced upper airway congestion during sleep compared to continuous ambulatory peritoneal dialysis (CAPD). However, there are few published data about its prevalence and its risk factor in prevalent CAPD patients.

Methods: One hundred and ten prevalent CAPD patients underwent overnight polysomnography (PSG), bioelectrical impedance analysis, and urea kinetics. Sleep questionnaire was administered to assess excessive daytime sleepiness (EDS) and sleep quality. SDB was defined as apnea/hypopnea index (AHI) >10.

Results: The sample had a median age 53.5 years, was predominantly male (59.7%) and had a median body mass index of 24.8 kg/m² and their mean CAPD duration was 29±21 months. 67.3% were diagnosed as SDB and 25.8% had EDS. Patients with SDB had significantly higher BMI and poorer sleep quality (p<0.05) compared to patients without SDB. There were no significant differences in parameters of fluids status in bioelectrical impedance analysis between two groups. However, patients with SDB had significantly lower residual GFR (3.2±4.2 vs. 5.9±2.9 ml/min, p=0.032), urine volume (715±833 vs. 1418±776 ml/day, p=0.022) and higher peritoneal Kt/V (1.5±0.3 vs. 1.2±0.3, p=0.031). Multiple regression analysis showed age (95% CI:1.036-1.198, p=0.019), BMI (95% CI:1.172-3.218, p=0.01), and urine volume (95% CI:0.996-0.998, p=0.008) were independently associated with SDB.

Conclusion: SDB (predominantly obstructive) was common among prevalent CAPD patients and was associated with residual renal function. Considering the impact of SDB on morbidity in dialysis patients, further study is needed whether preserving residual renal function could improve SDB in these population.

Key Words: 수면장애, 복막투석, 잔여신기능

Sleep disordered breathing, CAPD, Residual renal function