

한국인 복막투석 환자에서 과수분 상태의 장기간 관찰 결과

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Long Term Follow Up of Volume Status in Korean Peritoneal Dialysis Patients

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Volume overload is prevalent in ESRD patients and is known to be associated with chronic inflammatory process. Volume overload and chronic inflammation are both independent risk factors of morbidity and mortality in dialysis patients. Therefore we evaluated the long term effects of volume status in peritoneal dialysis patients.

98 patients were enrolled in a single center and total 78 patients completed the study (12 were dropped out, 8 changed dialysis modality). Body composition was measured using body composition monitor (BCM, FMC): overhydration (OH), lean tissue mass index (LTI), fat tissue mass index (ATI). Overhydration was defined as OH value over 1.1L. Geriatric nutritional risk index (GNRI=[14.89×albumin (g/dl)]+[41.7×body weight/ideal body weight]) were used as a nutritional marker.

The percentage of severely overhydrated patients was increased (OH≥2.5L, 41.8% to 50.6%, p<0.05) without any intervention. Those who were overhydrated remained overhydrated and the extent of overhydration was aggravated (p=0.002). The patients with excess fluid had lower GNRI, with less LTM and ATM at the beginning of the study and the results remained similar after the completion of the study (p<0.05), although the extent of LTM decreased more (p=0.000) and the ATM increased (p=0.02). Aortic calcification score (0–24) was significantly increased overall (p=0.000), however the score was not significantly different from patients with or without overhydration. During median follow-up of 2.5yrs, 11 (14%) died. All-cause mortality was increased in fluid overload state (crude hazard ratio 1.3). Those with low lean tissue mass index (LTM/weight) also showed increased risk of mortality. Volume overload is associated with malnutrition and both seem to be an independent predictor of mortality in PD population. Further study should evaluate the effects of intervention of volume control in PD patients.

Key Words: 과수분, 복막투석, 사망률

Volume overload, Peritoneal dialysis, Mortality

	OH (-0.5~1.1 L)	OH (1.1L~2.5L)	OH (2.5L ~)	p value
GNRI				
0 m	105.29±10.9 ^A	101.31±8.42 ^B	95.76±10.51 ^{A,B}	0.000
24 m	105.03±6.94 ^{A'}	101.94±4.6 ^{B'}	98.85±7.96 ^{A',B'}	0.029