

복막투석 환자에서 혈당 조절이 잔여신기능에 미치는 영향

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Impact of Glycemic Control on Residual Renal Function of Diabetic Patients on Peritoneal Dialysis

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Background : Although better glycemic control has been reported to slow down the progression of nephropathy in pre-dialysis diabetic patients, the effect of glycemic control on the residual renal function in peritoneal dialysis (PD) patients is uncertain.

Methods : We enrolled 49 incident diabetic PD patients from 5 centers. We measured the glomerular filtration rate (GFR) within 2 months after starting PD as baseline and every 6 months thereafter over 1- year period. GFR was calculated as the average of creatinine and urea clearance. Based on the mean hemoglobin A1c (A1c) during 1 year, the subjects were divided into two groups, i.e., good A1c (HbA1c<8%, n=34), and poor A1c (HbA1c ≥8%, n=15). We used Mann-Whitney tests to compare the continuous variables between two groups, and performed multivariate linear regressions to assess factors associated with the changes in GFR (Δ GFR).

Results : At baseline, good A1c group had lower body weight, higher diastolic blood pressure, and lower serum triglyceride level. During 1 year, Δ GFR were - 3.7 L/week/1.73m² in good A1c group, and - 22.5 L/week/1.73m² in poor A1c group (p=0.045). The presence of congestive heart failure ($\beta = 18.1 \pm 8.4$, p=0.038), logarithm of mean A1c ($\beta = - 104.3 \pm 45.9$, p=0.030), mean hemoglobin ($\beta = 7.3 \pm 3.5$, p=0.042) influenced Δ GFR. Age, gender, mean arterial pressure, emergency hemodialysis treatment before starting PD, and baseline dialysate per plasma creatinine ratio (D/Pcr) were not correlated to Δ GFR.

Conclusion : These results imply that better glycemic control even after commencing peritoneal dialysis may preserve residual renal function in diabetes.

Key Words : 잔여신기능, 복막투석, 혈당조절

Residual renal function, Peritoneal dialysis, Glycemic control