

자동복막투석과 지속성 복막투석간의 임상적 지표 및 투석 적절도의 비교 연구

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Comparative Study of Clinical Parameters & Dialysis Adequacy between Automated Peritoneal Dialysis and Continuous Ambulatory Peritoneal Dialysis

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Objectives: Automated peritoneal dialysis (APD) is increasingly used due to freedom from daytime exchanges and expectations of improvement in the quality of life, although only a small number of PD patients have been receiving APD until now. In this study, we compared APD with continuous ambulatory peritoneal dialysis (CAPD) to evaluate the effect of mode of PD on various measures of clinical parameters.

Methods: 44 APD and 18 CAPD patients were enrolled at the Yonsei university Medical Center from January 2007 to December 2009 in this study. Peritoneal equilibration test (PET) was evaluated at 1st month and 12th month during the 1st one year after dialysis were done and weekly Kt/V (Kt/V) and standard creatinine clearance (SCCr) of PD, and residual renal function (RRF, 24hr urine creatinine clearance) were measured at 1st month, 6th month, 12th month and 24th month after start of dialysis. In addition, serial biochemical tests were measured every three months during this period. We analyzed the alterations from the values at the 1st month to those at the 24th month between APD and CAPD patients.

Results: No statistically significant differences in baseline demographic and biochemical parameters were evaluated between APD and CAPD patients. Furthermore the differences in alterations in SCCr, RRF and Kt/V from 1st month to 24th month were insignificant statistically. However, hemoglobin (Hb) and calcium (Ca) were increased at 24th month, compared with at 1st month in APD patients, while they were decreased in CAPD patients (0.26 vs. -1.68 g/dL, 0.57 vs. -0.51 g/dL, $p < 0.05$, respectively). On the contrary, parathyroid hormone (PTH) was decreased in APD patients, whereas it was increased in CAPD patients (-41.30 vs. 6.90 pg/mL, $p < 0.05$).

Conclusion: No significant differences were shown between APD and CAPD in SCCr, RRF and Kt/V including PD adequacy for 24months after start of PD. However, APD may be significant that several biomarkers such as blood levels of Hb, Ca and PTH were improved compared with CAPD.

Key Words: 자동복막투석, 생화학적 지표, 투석 적절도
APD, Biochemistry, Dialysis adequacy