

장기간 복막투석 유지 환자의 임상적 특징: %제지방지수와 복막염의 중요성

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Clinical Characteristics of Long-term CAPD Patients: Importance of Lean Body Mass and Peritonitis

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Purpose : CAPD is known as an effective modality of renal replacement therapy. But lower technical survival rate of CAPD compared to hemodialysis is still problem. Purpose: to evaluate the characteristics of long-term CAPD survivors in pre-dialysis and early phase of dialysis for proper choice of dialysis modality and to predict the prognosis of CAPD patients.

Methods : We retrospectively reviewed medical records of long-term CAPD patients who were maintained CAPD for more than 100months (LT group, n=51), and age-sex matched short-term patients who switched to hemodialysis before 50 months due to technical failure of CAPD (ST group, n=51). For all patients, clinical characteristics, serial biochemical parameters, KT/V, normalized protein nitrogen appearance (nPNA), %lean body mass normalized to body weight (%LBM) and peritoneal equilibrium test (PET) within 1 month of CAPD were analyzed. Results: (1) LT group had lower prevalence of DM compared to ST group (3.9% vs.41.2%, $p<0.001$). (2) At the initiation of CAPD, the LT group had higher serum albumin (3.48 ± 0.50 g/dL vs. 3.17 ± 0.72 g/dL, $p<0.05$), creatinine (12.0 ± 4.8 mg/dL vs. 10.0 ± 2.7 mg/dL, $p<0.05$), and %LBM ($73.0\pm 11.9\%$ vs. $67.7\pm 10.3\%$, $p<0.05$). (3) LT group had a lower peritonitis rate (0.27 ± 0.29 /patient-year vs. 0.87 ± 0.93 /patient-year, $p<0.001$) and shorter initial peritonitis free duration (32.4 ± 31.4 months vs. 12.9 ± 10.3 months, $p<0.01$). (4) Peritoneal transport status on PET and adequacy of dialysis did not influence on longevity of CAPD (5) In multiple logistic regression analysis, diabetes (RR=13.81, $p<0.05$, 95% CI: 2.26–84.28), %LBM (RR=0.938, $p<0.05$, 95% CI: 0.89–0.99), and peritonitis rate (RR= 50.6, $p<0.001$, 95% CI: 3.40–103.78) were independent risk factors for failure of long-term maintenance of CAPD (6) In early course of CAPD, an abrupt increment of serum albumin was observed in first month of CAPD and remained stable in LT group.

Conclusion : The present study revealed that non-diabetic history, higher %LBM, lower peritonitis rate and initial longer peritonitis free duration after CAPD initiation are predictors of long-term CAPD survival. Our data suggest that improvement of albumin in early phase of CAPD may be important to predict long-term survival of CAPD.