

복막투석 초기 잔여신기능의 감소가 복막투석환자의 임상양상에 미치는 영향

영남대학병원 내과

조규향 · 도준영 · 정요한 · 박정민 · 강석희 · 박종원
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Impact of Early Decline in Residual Renal Function on Clinical Outcomes in the CAPD Patients

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Residual renal function (RRF) contributes to the quality of life of patients on dialysis through the better solutes clearances, fluid removal, less degree of anemia, better calcium-phosphorus control, better nutrition and removal of other uremic toxins. The purpose of this study is to investigate the effect of rapid decline of RRF in early period on clinical outcomes and body composition changes in CAPD patients. Among new CAPD patients from May 2001 to December 2009 in our hospital, 200 patients who finished 12 month protocol (male: 103, mean age: 50.0 ± 13.2 years, diabetes: 94) were analyzed. Patients were assigned to high GDP group (n=103, Dianeal[®] and Stay-safe[®]) and low GDP group (n=97, Physioneal[®] and Stay-safe : Balance[®]). We defined early RRF decline group (n=68) as more than 5 ml/min decline in RRF at the first month after initiation of PD from GFR just before initiation of PD. Daily ultrafiltration volume (UFV) and urine volume (UV), daily peritoneal glucose absorption, adequacy, RRF and clinical indices were measured at the first month, 6th month and 12th month. UFV and D/P4Cr during the peritoneal equilibration test (PET) using 4.25% dialysate were measured at the first month, 6th month and 12th month. Body composition including total body water (TBW) volume, lean body mass (LBM) and fat mass were measured using bio-impedance analysis (BIA) at the first month and 12th month. We analyzed the data with independent t-test and chi square test by SPSS 17.0. Results can be summarized as follows. 1) Baseline characteristics between early RRF decline group and non-early RRF decline group were not significantly different. 2) Incidence of early RRF decline group was 34% (68/200 patients). There is significant positive correlation between RRF at the first month and RRF at the 12th month. 3) Early RRF decline group showed significant lower RRF at the 6th and 12th month, and also significant higher CRP and lower serum Albumin at the 12th month than non-early RRF decline group. Early RRF decline group showed significant lower BW, TBW and LBM at the 12th month (60.2 vs. 64.6 kg, 31.0 vs. 34.0 kg, 44.1 vs. 47.6 kg) than non-early RRF decline group. There were no significant differences in RRF at the 12th month between the high GDP and the low GDP group. There were also no significant differences in RRF between diabetic and non-diabetic group at the 12th month. In conclusion, early decline of RRF in the first month could be associated with body composition changes and clinical outcomes during the first year in CAPD patients. It is suggested that preservation of RRF in early period of peritoneal dialysis is important to improve clinical outcomes and nutritional status.

Key Words: 복막투석, 잔여신기능, 임상양상

Peritoneal dialysis, Residual renal function, Clinical outcome