

지속성외래복막투석환자에 있어서 복막중피세포와 임상지표의 장기변화

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Long-term Changes of Ex Vivo Human Peritoneal Mesothelial Cells (HPMC) and Clinical Indices in CAPD Patients

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The purpose of this study was to analyze the long-term changes of human peritoneal mesothelial cells (HPMC) and clinical indices over time in CAPD patients. Among new CAPD patients from May 2001 to Mar 2009 in our hospital, 327 patients (203 male, 194 diabetes, mean age 52.3 years) enrolled in this protocol (6–96 months, mean: 34.5 months). Patients were assigned to one of four groups, Group D (N=131, pH 5.5, high GDP, Dianeal[®], Baxter), Group P (N=41, pH 7.4, lactate/bicarbonate, low GDP, Physioneal[®], Baxter), Group S (N=69, pH 5.5, high GDP, Stay-safe[®], FMC), and Group B (N=86, pH 7.0, lactate, low GDP, Stay-safe. Balance[®], FMC). Switching of dialysate were done in 50 patients (group D to P: 38, S to B: 24, P to D: 2). D-CA125 and ex vivo HPMC culture from overnight effluent, PET and clinical indices were measured at the 1st month, every 6 months between 6th to 60th month and after then annually (number of culture: 2016 times). We scored HPMCs (1: cobble stone appearance mesothelial cell, 2: mixed, 3: fibroblast) in the T25 culture plate as morphologic characteristics by the same researcher. We analyzed the data with independent t-test and Pearson chi square test. Results can be summarized as follows. There were significant increases over time in D-CA125 level during 12 to 42 months ($p<0.01$). Residual renal function was decreased with time ($p<0.01$) but there were no significant changes of D/P 4hCr with time on PD. There were significant changes of HPMC score in effluent over time (the numbers of score 3: 15%, 17.4%, 19.9%, 18.4%, 22.5%, 24.6%, 27.5%, 37.8%, 39.4%, 48.8%, 48.4%, 52.9%, 81.8% and 100% at 1, 6, 12, 18, 24, 30, 36, 42, 48, 52, 60, 72, 84 and 96 months). Group D showed lower incidence of cell score 3 than group P ($p<0.05$, $P<0.01$, $p<0.05$ and $p<0.05$ at 6, 18, 24 and 30 months) and group B showed lower incidence of cell score 3 than group S ($P<0.01$, $p<0.01$ and $p<0.05$ at 12, 24 and 30 months). In conclusion, there were significant changes in CA125 level and HPMC cell score over time on PD.

Key Words : 지속성외래복막투석, 복막중피세포
CAPD, human peritoneal mesothelial cell