

혈액투석환자와 복막투석환자에서 Onodera 예후영양지표와 림프구아수의 관계

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Relationship between Onodera's Prognostic Nutritional Index and Subpopulation Lymphocyte Counts in Hemodialysis and Peritoneal Dialysis Patients

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Background: No standard method for assessing the nutritional status in dialysis patients. In the present study, we undertook an evaluation to determine whether estimation of Onodera's Prognostic Nutritional Index (OPNI) and lymphocyte subset counts can be helpful in diagnosis of malnutrition in hemodialysis (HD) and continuous ambulatory peritoneal dialysis (CAPD) patients.

Methods: We examined the OPNI and lymphocyte subset counts of 50 HD patients (55.8±12.7 years; 28 men and 22 women) and 16 CAPD patients (49.8±14.5 years; 10 men and 6 women). The OPNI is calculated based on the serum albumin level and total lymphocyte count and uses the following equation: OPNI=10×serum albumin (g/dL)+0.005×total lymphocyte count (/mL). Logistic regression analysis was performed for predicting malnutrition in dialysis patients.

Results: The average OPNI value was 47.0±4.6 in HD patients and 39.5±4.3 in CAPD patients. Lymphocyte subset counts were not different between HD patients and CAPD patients. Lymphocyte subset counts were lower in patients with higher OPNI (OPNI ≥45). According to logistic regression for predicting malnutrition according to GNRI, age, CAPD and CD 19 count predicted malnutrition in hemodialysis and peritoneal dialysis patients

Conclusions: These results suggest that OPNI and lymphocyte subset counts (especially CD 19 count) may be a significant nutritional marker in HD and CAPD patients.

Key Words: Onodera 예후영양지표, 림프구아수, 투석
OPNI, Subpopulation lymphocyte counts, Dialysis

Table 3. Logistic regression for predicting malnutrition according to OPNI at start of study

Variable	OR (95% CI)	P
Age > 60 years	16.724 (1.450-192.884)	0.024
Female	1.115 (0.152-8.194)	0.915
PD	5.307 (1.872-14.457)	0.021
Duration of dialysis (months) > 60	2.467 (0.326-18.672)	0.382
DM	0.541 (0.053-5.473)	0.603
Total Lymphocyte Count (/mm ³) < 1500	4.351 (0.698-27.121)	0.115
CD3 count (/mm ³) < 1000	8.041 (0.158-40.833)	0.298
CD4 count (/mm ³) < 600	0.771 (0.076-7.833)	0.826
CD8 count (/mm ³) < 350	0.317 (0.010-10.081)	0.515
CD19 count (/mm ³) < 100	3.444 (1.265-7.347)	0.034