

복막투석을 시작한 환자에서 체지방의 변화

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The Changes of Body Fat Mass in Patients Starting Peritoneal Dialysis

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Background : Peritoneal dialysis (PD) is characterized by gain of fat mass. However, the factors associated with such condition have been still unknown. In this study, we studied the serial change of fat composition and nutrition status, and factors associated with the gain of body fat in PD patients.

Methods : Forty patients (22 were male; age, 52.8 ± 11.8 years; 19 continuous ambulatory peritoneal dialysis/21 automated peritoneal dialysis) were enrolled. Body composition was assessed by bioelectric impedance analysis (BIA) and computed tomogram (CT). Nutrition status was assessed by subjective global assessment (SGA), means of protein equivalent of nitrogen appearance (nPNA), serum albumin, C-reactive protein (CRP) and lipid profile. All measurements except BIA were performed at baseline and after 6 months.

Results : the visceral and subcutaneous fat mass were $84.4 \pm 61.1 \text{ cm}^2$ and $101.6 \pm 60.3 \text{ cm}^2$ at baseline. Body weight and Body mass index increased after 6 months. While serum hematocrit and albumin decreased, nutrition parameter such as nPNA, and SGA didn't change. SGA scores in 39.4% patients increased while those in 18.2% decreased. The visceral fat and subcutaneous fat increased after 6 months ($97.7 \pm 53.1 \text{ cm}^2$, and $132.0 \pm 66.6 \text{ cm}^2$, respectively). The changes of visceral and subcutaneous fat mass were correlated each other ($r=0.327$, $p=0.04$). The changes of visceral and subcutaneous fat mass were not different according to DM, old age, and sex. Multiple linear regression showed that baseline TG ($\beta=25.3$, $p=0.001$), and baseline visceral fat mass ($\beta=-0.33$, $p=0.000$), and the changes of subcutaneous fat mass ($\beta=0.56$, $p=0.000$) were factors of the increase of visceral fat. Baseline TG ($\beta=-20.8$, $p=0.000$), and baseline visceral fat mass ($\beta=0.23$, $p=0.000$), and the changes of visceral fat mass ($\beta=0.73$, $p=0.000$) were factors of the increase of subcutaneous fat.

Conclusion : Visceral and subcutaneous fat increase after 6 months of PD. Baseline TG is positive predictor of visceral fat mass and negative predictor of subcutaneous fat mass.

Key Words : 체지방, 내장지방, 체지방

Body fat mass, Visceral fat, Peritoneal dialysis