

## 복막투석 환자의 체지방 변화

순천향대학교 의과대학 내과학교실

김은정 · 정철호 · 박무용 · 최수정 · 김진국 · 황승덕

### Changes in Body Fat Mass in Patients after Starting Peritoneal Dialysis

Eun Jung Kim, Chul Ho Chung, Moo Yong Park, Soo Jeong Choi, Jin Kuk Kim, Seung Duk Hwang

Soonchunhyang University College of Medicine, Department of Internal Medicine

**Background:** Peritoneal dialysis (PD) is characterized by the gain in fat mass. Visceral fat mass is associated with metabolic syndrome and atherosclerosis rather than subcutaneous fat mass. In addition, the change in visceral fat mass is more reliable predictor of survival in PD patients. In this study, we prospectively examined serial changes in fat composition and nutritional status, and analyzed factors associated with the gain in fat mass undergoing PD patients.

**Methods:** 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 on the seventh day, 6 months and 12 months after the start of PD.

**Results:** sixty patients (30 men), with a mean age  $55.0 \pm 12.48$  years, were enrolled. An increase in body weight continued during 12 months, but visceral and subcutaneous fat mass increased in first 6 months and decrease in second 6 months. While serum hematocrit and albumin decreased in first 6 months, they did not change in second 6 months. Serum creatinine, total cholesterol and triglyceride increased similar to the weight pattern. While nPNA decreased in 12 months, KT/V, SGA, and CRP didn't change.

The patients who had more visceral fat mass at the start of PD had less gain of visceral fat mass in early 6 months ( $r = -0.821$ ,  $p = 0.002$ ). The patients who had more subcutaneous fat mass at the start of PD had less gain of subcutaneous fat mass in early 6 months ( $r = -0.709$ ,  $p = 0.015$ ). The change of weight ( $\Delta W$ ) was not associated with the change of visceral or subcutaneous fat in the first 6 months.

**Conclusion:** Patients starting PD have the increase of weight which includes visceral and subcutaneous fat in first 6 months. Patients with high baseline fat mass had less of an increase in fat mass than those with low baseline fat mass regardless visceral or subcutaneous fat mass.

**Key Words:** 복막투석, 내장지방, 피하지방

Peritoneal dialysis, Visceral fat, Subcutaneous fat