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# 복막투석을 시작한 환자에게서 렙틴과 아디포넥틴의 변화

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# Changes in Leptin and Adiponectin in Patients after Starting Peritoneal Dialysis

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**Background:** Leptin and adiponectin are adipokine with respective pro-atherogenic and anti-atherogenic properties. Peritoneal dialysis (PD) is characterized by the gain in fat mass. In this study, we prospectively elucidated serial changes in leptin, adiponectin and fat composition in patients undergoing PD.

**Methods:** Visceral and subcutaneous fat mass on umbilical level were measured by computed tomogram (CT). Nutrition status was assessed by means of protein equivalent of nitrogen appearance (nPNA), serum albumin, C-reactive protein (CRP) and lipid profile. All measurements were performed on the seventh day, 6 months and 12 months after the start of PD.

**Results:** thirty six patients (17 men), with a mean age 54.9±12.5 years, were enrolled. Plasma leptin and adiponectin level on baseline were 30.7±9.9 ng/mL and 30.3±4.2 μg/mL, respectively. Leptin (11.4±3.1 vs. 36.4±10.6 ng/mL, p=0.022) and adiponectin (19.4±3.7 vs. 31.4±3.9 μg/mL, p=0.042) in women was greater than in men on baseline. Leptin in the elder (age >65 years) was greater than the younger leptin (48.2±20.5 vs 16.9±5.2 ng/mL, p=0.041). But, diabetes mellitus (DM) didn't affect these levels. Initial leptin was associated with subcutaneous fat (r=0.758, p=0.000), BMI (r=0.541, p=0.007) after adjustment for sex, age, DM, cardiovascular disease. Initial adiponectin was associated with albumin (r=-0.432, p=0.002), and subcutaneous fat (r=-0.522, p=0.010) after adjustment. While body weight increased significantly, visceral and subcutaneous fat didn't change in 12 months. Serum albumin, triglyceride and CRP didn't change. KT/V and n PNA didn't change. While leptin tends to increase (p=0.090), adiponectin decreased in 12 months (p=0.040).

**Conclusion:** Initial leptin and adiponectin are associated with initial subcutaneous fat mass in patients starting PD. Adiponectin decreases during 12 months.

**Key Words:** 복막투석, 렙틴, 아디포넥틴
Adiponectin, Leptin, Peritoneal didalysis