

## 우성다낭성신질환 환자에서 SGA를 이용한 영양평가 및 위험인자에 대한 고찰

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### Nutritional Assessment of ADPKD using SGA Score in Outpatient Clinic

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**Introduction and Aims:** In Autosomal dominant polycystic kidney disease (ADPKD) patients, malnutrition risks are elevated due to inadequate oral intake and gastrointestinal symptoms as disease progress. Also protein restriction therapy done in CKD patients with ADPKD can further increase risk of malnutrition. In this study, we evaluated the nutritional status of ADPKD patients in outpatient setting by using Subjective global assessment (SGA) and investigated the risk factors for malnutrition.

**Methods:** This study is a cross sectional study with ADPKD patients who were registered at PKD clinic in Seoul National University Hospital. Patients were evaluated nutritional status with SGA. Total liver volume was measured by stereotactic volumetry using abdominal computed tomography (CT) scan and adjusted by the height. Total kidney volume was obtained by ellipsoid method. The recent laboratory datas including creatinine, albumin, and cholesterol were collected

**Results:** A total of 288 patients (150 male, 138 female) were included in the analysis. Mean age was 48.3 years and their mean eGFR was  $65.3 \pm 25.3$  mL/min/1.73m<sup>2</sup>. Mean SGA score was 6.63. Total 21 patients (7.3%) were mild to moderately malnourished and 63 patients (21.7%) were at risk of malnutrition. There was no difference in SGA score distribution with sex. Physical scores related to nutritional status in total and male were age, height, weight and BMI. However none of these factors were related in female. Laboratory parameters as hemoglobin and albumin were correlated with SGA score in total and male but these were not seen in female. The eGFR was lower in lower SGA score, in total, male and female population. Height adjusted total abdominal volume (htTAV, sum of kidney and liver volume adjusted with height) were correlated with nutritional status. Area under curve was 0.727 and cutoff value was 2,340 cm<sup>3</sup>/m (sensitivity 66.7% and specificity 81.4%) by using ROC curve analysis. After adjusting sex, age, hemoglobin, albumin and serum creatinine by using binominal logistic regression, malnutrition risk was increased in htTAV  $\geq 2,340$  cm<sup>3</sup>/m group with odd ratio 8.7.

**Conclusions:** ADPKD patients were in high prevalence of malnutrition even in outpatient setting. Abdominal volume was dominant risk factor even after adjusted with other factors. Proper nutrition assessment and intervention should be done in ADPKD patients with large abdominal volume.

**Key Words:** 우성다낭성신질환, 영양

Autosomal dominant polycystic kidney disease, Nutrition