

필수 아미노산의 ketoanalogs 보충을 동반한 단백 제한 식이가 만성 신질환의 진행에 미치는 영향

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The Effect of Ketoanalogs of Essential Amino Acids Supplemented Low Protein Diet on the Progression of Chronic Kidney Disease

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Background : Low protein diet (LPD) is prescribed as a conservative treatment in patients with chronic kidney disease (CKD) to improve uremic symptoms and to slow the progression of renal dysfunction. However, deleterious effects of LPD on nutritional status and obscure clinical outcomes have raised concern. We investigated whether LPD supplemented with ketoanalogs retards progression of CKD and maintains nutritional status.

Methods : Data were collected retrospectively from 120 predialytic CKD patients to whom a supplemented LPD with ketoanalogs was administered for at least 6 months. Measurements of decline rate of glomerular filtration rate (GFR), clinical and biochemical parameters before (pre LPD+KA period) and after ketoanalogs supplemented LPD (LPD+KA period) were compared.

Results : GFR- time slope and reciprocal creatinine- time slope increased significantly during the LPD+KA period in both diabetic and non- diabetic patients. Mean total cholesterol and triglyceride levels decreased during the LPD+KA period. However, levels of albumin and protein did not change. Responders defined as patients who showed an increase in GFR- time slope during the LPD+KA period had higher prevalence of diabetes and a higher serum albumin level during the pre LPD+KA period. On multivariate analysis, responsiveness to LPD with ketoanalogs supplementation was independently related to diabetes and higher levels of albumin in the pre LPD+KA period.

Conclusion : LPD supplemented with ketoanalogs have beneficial effect for preserving GFR in CKD patients, and the nutritional status before starting the dietary treatment is thought to be an independent factor of this effect.

Key Words : 만성신질환, 케토아날로그, 저단백식이

Chronic kidney failure, Keto acids, Protein- restricted diet