

식이 중 소듐-포타슘 섭취비가 만성신장질환의 유병율에 미치는 영향

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Dietary Sodium–Potassium Intake Ratio and Chronic Kidney Disease

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Background: Recent study reported that a higher dietary sodium–potassium intake ratio is associated with increased risk of cardiovascular disease, and is stronger than sodium or potassium alone. However, there were few data showing the relationship between dietary sodium–potassium intake ratio and renal risk. In this study, we investigated the relationship between dietary sodium–potassium intake ratio and the prevalence of chronic kidney disease (CKD).

Methods: A total of 2,418 Korean adults who had visited the Healthcare System Gangnam Center between 2006 and 2010 were enrolled. Korean versions of food frequency questionnaires were used to measure the amount of dietary sodium and potassium intake in this study. Glomerular filtration rate (eGFR) was estimated using the simplified MDRD study equation. CKD was defined as a reduced estimated GFR (<60 mL/min/1.73m²) or albuminuria (UACR ≥ 30 mg/g).

Results: The mean age was 56.3±8.4 years and the prevalence of diabetes was 9.3%. Among 2,418 subjects, 316 (13.1%) had CKD. The mean dietary sodium–potassium intake ratio was 1.47±0.4. In a multivariate model, there was a non-significant trend in CKD prevalence over increment of dietary sodium intake and dietary potassium intake, but the prevalence of CKD was significantly increased over increment of the dietary sodium–potassium intake ratio (odd ratio [OR], 1.50, 95% confidence interval [CI], 1.06–2.10).

Conclusion: A higher dietary sodium/potassium intake ratio is associated with increased prevalence of CKD, and is stronger than sodium or potassium alone.

Key Words: 소듐, 포타슘, 만성신장질환

Sodium, Potassium, Chronic kidney disease