

한국 성인에서 포타슘 섭취가 무증상 관상동맥질환에 미치는 영향

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Association of Dietary Potassium Intake with Subclinical Coronary Artery Disease in Korean Adults

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Objective: Although several previous studies have evaluated the relationship between potassium intake and stroke or cardiovascular disease, but the results have been conflicting. The objective of this study was to investigate the relationship between dietary potassium intake and the prevalence of subclinical coronary artery disease in Korea.

Methods: We conducted a cross-sectional study of 1,945 subjects without history of cardiovascular disease or stroke, who underwent routine health checkups including computed tomography (CT) coronary angiography at the Healthcare System Gangnam Center of Seoul National University Hospital from 2007 through 2010. Dietary potassium intake was assessed by the Korean version of food frequency questionnaires. Significant coronary artery stenosis was defined as more than 50% of luminal stenosis of any major coronary artery on CT coronary angiography.

Results: Among 1,945 subjects, 68 (3.5%) had significant coronary artery stenosis. Individuals with lower potassium intake showed higher prevalence of significant coronary artery stenosis (p for trend 0.028). After adjustment for age, sex, body mass index, hypertension, diabetes mellitus, and dyslipidemia, the lowest quintile group of potassium intake was associated with higher risk of significant coronary artery stenosis (odds ratio [OR] 2.96; 95% confidence interval [CI] 1.12–7.79). In subgroup analysis, among individuals without diabetes, the lowest quintile group of potassium intake was still associated with higher risk of significant coronary artery stenosis (odds ratio [OR] 4.42; 95% confidence interval [CI] 1.21–16.19).

Conclusion: Our findings suggest that lower dietary potassium intake is significantly associated with higher prevalence of subclinical coronary artery disease. Among nondiabetic adults, the harmful effect of lower potassium intake on subclinical coronary artery disease may be even larger than that among general population.

Key Words: 포타슘 섭취, 관상동맥질환

Potassium intake, Coronary artery disease