**IMPACT OF DIABETES MELLITUS ON SUBCLINICAL ATHEROSCLEROSIS IN ASYMPTOMATIC INDIVIDUALS**

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*Objectives*: The purpose of this study was to investigate the impact of diabetes mellitus on the risk of subclinical atherosclerosis in asymptomatic individuals.

*Background*: Little is known about subclinical atherosclerosis on coronary computed tomographic angiography (CCTA) in asymptomatic individuals with diabetes mellitus.

*Methods and Results*: We analyzed 6,311 consecutive asymptomatic individuals aged 40 and older with no prior history of coronary artery disease (CAD) who voluntarily underwent CCTA evaluation as part of a general health examination between January 2007 and December 2011. The mean age of the study population was 54.5±7.4 years, and 4,594 (72.8%) were male. Of the study population, 1,033 (16.4%) had diabetes mellitus. After adjustment using age and gender distributions from the 2010 South Korean population census, individuals with diabetes mellitus had a significantly higher prevalence of plaque (standardized rate ratio [SRR], 1.37; 95% confidence interval [CI]: 1.17–1.60; p<0.001), non-calcified plaque (SRR, 1.71; 95% CI: 1.35–2.17; p<0.001), calcified plaque (SRR, 1.29; 95% CI: 1.09–1.53; p=0.003), mixed plaque (SRR, 1.69; 95% CI: 1.24–2.31; p=0.001), significant CAD (SRR, 2.66; 95% CI: 1.93–3.68; p<0.001), and significant CAD in the in the left main or proximal left anterior descending artery (SRR, 2.94; 95% CI: 1.71–5.04; p<0.001) compared with those without.

*Conclusions*: In asymptomatic individuals, diabetes mellitus was associated with subclinical atherosclerosis on CCTA with subsequent high risk for future cardiac events. These findings suggest the importance for control of hyperglycemia in asymptomatic individuals.