**IMPACT OF INITIAL FUNCTIONAL EVALUATION COMPARED WITH INVASIVE ANGIOGRAPHY FOR STABLE CORONARY ARTERY DISEASE**

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*Background:* There are limited data about the clinical implications of invasive coronary angiography (CAG) or myocardial perfusion imaging (MPI) for an initial evaluation for stable coronary artery disease (CAD).

*Methods*: From national health insurance claims data in South Korea, patients aged 18 years or older without a known history of CAD, who underwent CAG or MPI for the diagnosis of stable CAD between 2009 and 2013, were enrolled. Patients in the hospitals, which could perform both CAG and MPI, were only evaluated. Patients were divided into CAG (n=60,525) and MPI (n=19,932) groups. The primary endpoint, defined as a composite of all-cause death and myocardial infarction, was compared between the two groups.

*Results*: The mean age of study participants was 60.9 years and 44,532 (55.3 %) were male. During the follow-up period (median, 2.4 years; interquartile range, 1.5–3.5), coronary revascularization was more frequently performed in the CAG group (adjusted hazard ratio [aHR] of CAG, 26.27; 95% confidence interval [CI]: 21.86–31.58; P<0.001). However, the incidence of the primary endpoint was significantly higher in the CAG group (aHR, 1.26; 95% CI: 1.16–1.36; P<0.001). The individual endpoints of all-cause death (aHR, 1.19; 95% CI: 1.09–1.29; P<0.001) and myocardial infarction (aHR, 1.81; 95% CI: 1.49–2.20; P<0.001) were also higher in the CAG group.

*Conclusions*: As an initial diagnostic test in patients with stable CAD, MPI is associated with better clinical outcomes than CAG.