

Five-year Clinical Outcomes in Patients with Significant Coronary Artery Spasm; A Propensity Score-Matched Analysis

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Background: Coronary artery spasm (CAS) is known to be a risk factor of acute coronary syndrome and angina pectoris. We evaluated the prevalence of CAS and the impact of CAS on 5-year clinical outcomes in a series of Asian CAS patients documented by intracoronary acetylcholine (Ach) provocation test. **Methods:** A total of 1,413 consecutive patients without significant coronary artery disease (CAD) who underwent Ach provocation test between Nov. 2004 and Oct. 2008 were enrolled. Significant CAS was defined as > 70% of narrowing by incremental intracoronary injection of 20, 50 and 100 µg. Patients were divided into two groups based on the presence of significant CAS (the non-CAS group: n=640, the CAS group; n=773). To adjust potential confounders, a propensity score matched (PSM) analysis was performed using the logistic regression model. **Results:** A total of 54.7% (773/1413) patients were diagnosed as CAS documented by Ach provocation test. After PSM analysis, 2 propensity-matched groups (451 pairs, n = 902, C-statistic=0.677) were generated. Despite of similar incidence of individual hard endpoints including mortality, myocardial infarction and revascularization, the CAS group showed the higher trend of recurrent angina requiring follow up angiography than the non-CAS group up to 5years (HR; 1.56, 95% C.I; 0.99-2.46, p=0.054). **Conclusions:** Although the CAS was not associated with increased incidence of major adverse clinical outcomes, the cumulative incidence of recurrent angina seems to be increased up to 5 years.