

3-Year Follow-Up of Fixed Coronary Lesion in Patients with Coronary Artery Spasm

Background: Coronary artery spasm (CAS) and fixed atherosclerotic coronary lesion (FCL) are both known to be major causes of myocardial ischemia. However, their association and the impact of FCL on long-term clinical outcomes in CAS patients is largely unknown.

Methods: A total of 2,797 patients without significant coronary artery disease (CAD) enrolled between Nov. 2004 and Oct. 2010 underwent the acetylcholine (ACH) provocation test. Significant CAS was defined as having more than 70% of narrowing of the coronary artery. Patients were divided into two groups: FCL group (n=765) and non-FCL group (n=845). To adjust potential confounders, a propensity score matching (PSM) analysis was performed using the logistic regression model.

Results: After PSM analysis, 2 propensity-matched groups (525 pairs, total = 1050, C-statistic=0.703) were generated. The baseline clinical characteristics of the two PSM groups were undifferentiated in all measured criteria. Regarding angiographic characteristics during the ACH test, the FCL group consisted of more ST-segment depression change, focal spasm, and small spastic narrowing diameter compared with the non-FCL group. However, the two groups were undifferentiated regarding both primary and secondary endpoints in the 3-year clinical follow-up.

Conclusions: Although, the FCL group was expected to have more adverse long-term clinical outcomes, this group did not have increased incidence of major adverse clinical outcomes compared with the non-FCL group.