

Impact of Fixed atherosclerotic Coronary Lesion in Patients with Coronary Artery Spasm on 5-year Clinical Outcomes

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

Methods: A total of 1,986 consecutive patients without significant coronary artery disease (CAD) who underwent Ach provocation test were enrolled. Patients were divided two groups according to FCL (FCL group : n=349, non-FCL group: n=1637).

Results: At baseline, the FCL group had a higher incidence of elderly, male, hypertension, diabetes and dyslipidemia than the non-FCL group. During Ach provocation test, the non-FCL group had higher incidence of myocardial bridge and baseline spasm. The FCL group had a higher incidence of major adverse cardiac & cerebrovascular events (MACCE) including all-cause mortality, myocardial infarction, coronary revascularization and cerebrovascular accidents (8.9 % vs. 1.3%, p=0.000) at 5 years. Also, FCL was a strongest independent risk factor for MACCE in patients with CAS (HR; 4.04, 95% C.I; 2.21-7.40, p=0.000).

Conclusions: In this study, the presence of FCL in vasospastic angina (VSA) patients was associated with adverse 5-year clinical outcomes as compared with VSApatients without FCL.