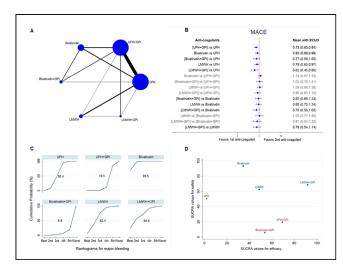
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CRT-137

Impact Of Renin-angiotensin-aldosterone System Inhibitors On 5-year Clinical Outcomes in Patients with Significant Coronary Artery Spasm; A Propensity Score Matching Study

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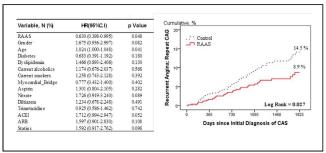
BACKGROUND It has been well known that a major cause of vasospastic angina is endothelial dysfunction of the coronary artery. Also, renin-angiotensin-aldosterone system (RAAS) is known to be closely associated with endothelial dysfunction. However, there is no study for impact of RAAS inhibitor on long-term clinical outcomes in vasospastic angina patients (pts).

METHODS A total of 3,349 consecutive pts without significant coronary artery disease (CAD) underwent acetylcholine (Ach) provocation test and diagnosed as CAS between Nov. 2004 and May. 2014 were enrolled. Significant CAS was defined as > 70% of narrowing by incremental intracoronary injection of 20, 50 and 100 μg into left coronary artery. Pts were divided into two groups based on the treat of RAAS inhibitors (the RAAS group: n=666, the control group; n=2683). To adjust potential confounders, a propensity score matched (PSM) analysis was performed using the logistic regression model.

RESULTS After PSM analysis, 2 propensity-matched groups (1,143 pairs, n=2,286, C-statistic=0.845) were generated and the baseline characteristics of the two groups were balanced. At 5 years, despite of similar incidence of individual hard endpoints including mortality, myocardial infarction and revascularization, the RAAS inhibitors group were significantly associated with lower incidence of recurrent angina requiring repeat coronary angiography than the control group (HR; 0.63, 95% C.I; 0.40-0.99, p=0.048, Table and Figure).

CONCLUSIONS In our study, RAAS inhibitor was associated with reduced incidence of recurrent angina in pts with vasospastic angina up to 5-year clinical follow-up.

Table. Clinical outcomes upto 5-years



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Impact of Trimetazidine Treatment on 5-year Clinical Outcomes in Patients with Significant Coronary Artery Spasm; A Propensity Score Matching Study

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BACKGROUND Trimetazidine (VastinanTM) is an anti-ischemic metabolic agent, which improves myocardial glucose utilization through inhibition of fatty acid metabolism, also known as fatty acid oxidation inhibitor. Trimetazidine usually prescribed as a long-term treatment of angina pectoris. The aim of this study is to investigate clinical impact of trimetazidine as an additional treatment of acetylcholine (Ach) induced coronary artery spasm (CAS) on clinical outcomes up to five-years.

METHODS A total of 3,360 consecutive patients (pts) underwent Ach provocation test and positive CAS pts were enrolled between Nov. 2004 and May. 2014. Significant CAS was defined as > 70% of narrowing by incremental intracoronary injection of 20, 50 and 100 μg into left coronary artery. Pts were divided into two groups: the Trimetazidine group (Diltiazem+Nitrate+Trimetazidine; n=1,154), the control group (Diltiazem+Nitrate+Placebo; n=745). To adjust potential confounders, a propensity score matched (PSM) analysis was performed using the logistic regression model.

RESULTS After PSM analysis, 2 propensity-matched groups (659 pairs, n =1,318, C-statistic=0.695) were generated and the baseline characteristics of the two groups were balanced. At 5 years, there were similar incidence of individual hard endpoints including mortality, myocardial infarction, revascularization and recurrent angina requiring repeat coronary angiography.

CONCLUSIONS In this study, despite the expected improvement if ischemic symptoms by anti-ischemic mechanisms, an additional treatment with Trimetazidine in CAS pts was not associated with improving clinical outcomes up to five-years. To get a final conclusion, a large scale randomized trial would be needed.

Table. Clinical Outcomes up to 5-years after Propensity Score Matching

