Conclusions: The ERG test triggered epicardial coronary spasm in more than 40% of Japanese patients who underwent diagnostic angiography for assessment of stable angina and unobstructed coronary arteries. Our results suggest that abnormal coronary vasomotion plays a pathogenic role in this setting and that the ERG test might be useful to identify patients with cardiac symptoms, despite normal coronary arteries.

TCT-432
Angiographic Characteristics according to Acetylcholine Dose Responsible for Significant Coronary Artery Spasm

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Background: We assume that patients (pt) showing positive acetylcholine (Ach) provocation test to lower Ach dose may more vulnerable to CAS. We investigated whether there are differences in angiographic characteristics according to Ach dose causing significant CAS during intracoronary Ach provocation test.

Methods: A total 1730 consecutive pts underwent Ach provocation test by incremental doses of 20, 50, 100 were enrolled. Significant CAS was defined as focal or diffuse severe transient luminal narrowing (>70%) with/without chest pain or ST-T change on ECG. Angiographic characteristics were compared between the Low dose group (20 & 50 ug, n=716) and High dose group (100 ug, n=1014) among pts with positive Ach provocation test.

Results: Baseline clinical characteristics were similar between the two groups except the Low dose group had more elderly (>50 years), diabetes mellitus and previous myocardial infarction (MI). During the Ach provocation test, the incidence of atroventricular (AV) block, severe CAS (>70% stenosis by QCA), multi-vessel spasm and diffuse spasm were more frequent in low dose group (Table).

Conclusions: In our study, we found that pts showing significant CAS to lower Ach dose showed more chance to have severe, diffuse and multivessel spasm during the test. Special care with intensive medical therapy should be considered who showed significant Ach response to lower Ach dose as compared with those responded to higher Ach dose.

TCT-433
Impact of Beta-Blocker on Angiographic and Clinical Parameters during Intracoronary Acetylcholine Provocation Test

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Background: Beta blockers (BB) are widely used to control hypertension. It is well known that BB may lead to significant vasospasm. However, the impact of chronic administration of BB on clinical and angiographic characteristics during acetylcholine (Ach) provocation test is not clarified yet.

Methods: A total 3034 consecutive patients (pts) underwent coronary angiography with Ach provocation test from January 2004 to August 2010 were enrolled for this study. Ach was injected in incremental doses of 20, 50, 100μg into the left coronary artery. Significant coronary artery spasm (CAS) was defined as focal or diffuse severe transient luminal narrowing (>70%) with/without chest pain or ST-T change on ECG. A total 1394 pts (45.9%) showed positive provocation test results. Among the (+) provocation test pts, we compared the clinical and angiographic characteristics of patients with beta-blocker to those without beta-blocker in pts with myocardial infarction.

Results: The baseline clinical and procedural characteristics were well balanced between the two groups. There was no difference in the incidence of myocardial bridges, chest pain, ischemic ECG changes and atrioventricular (AV) block on ECG, incidence of baseline spasm, severe vasospasm, multi-vessel involvement during the Ach provocation test were similar in both groups.

Conclusions: The use of beta blocker in pts with vasoplastic angina was not associated with worse clinical and angiographic parameters during the Ach provocation test. BB may be safely used in pts with vasoplastic angina.