revascularization of the culprit lesion in 67.5% of patients (29 - PCI, 1- ACTP, 1 CAGB) with in-hospital death of 8% (3 patients: 2 cases which the dissection progressed retrogradely during PCI and involved the left main and complicated by cardiogenic shock and 1 case involving also the aortic root), 21.6% of cases were initially treated with fibrinolysis which was also significantly related with MACC (p=0.001). PCI was successful in 99.8% of cases. 2 or more stents were needed in 50% of cases and the medium stent length was 46.7 ± 32.4 mm [SD]. During a mean angiographic follow-up of 1023 days the 85% of them didn’t have any images of dissection.

CONCLUSIONS The registry showed that after spontaneous dissection the prognosis in the long-term follow up is acceptable and most of the MACC occur during the acute phase. PCI of these types of lesions are generally successful but usually involve a long stent length. Tortuosity in coronary arteries, previous thrombolysis and the retrograde progression of dissection during PCI involving the left main are related to bad prognosis.

CATEGORIES CORONARY: Acute Coronary Syndromes

TCT-179 Comparison of Culprit-only versus Multi-vessel Percutaneous Coronary Intervention with 2nd Generation Drug Eluting Stent in STEMI Patients

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BACKGROUND We compared the effect of culprit-only and multifocal artery disease percutaneous coronary intervention (MVD-PCI) with 2nd generation drug eluting stent (DES) in ST-elevation myocardial infarction (STEMI) with multivessel disease (MVD).

METHODS From 2009 to 2014, a total of 1541 consecutive patients with STEMI underwent primary PCI were analyzed retrospectively. Of all patients, 559 patients (zotarolimus-eluting stent: 32%, everolimus-eluting stent: 29%, biolimus-eluting stent: 10%, others 29%) with MVD were chosen and divided into culprit only PCI (n=270, 48%) and MVD-PCI (n=289, 52%). In addition, MVD-PCI was classified into simultaneous PCI at index procedure (n=210, 38%) and staged PCI (n=79, 14%) according to the way of PCI. Primary endpoint was cardiovascular (CV) death. The secondary endpoints was major adverse cardiac events (MACE) including CV death, MI, target vessel failure (TVF), admission from heart failure and stroke.

RESULTS Over a mean follow-up period of 23±19 months, there were 69 (12%) CV death and 114 (20%) MACE. Compared with culprit only PCI, MVD-PCI had a numerically lower CV death rate (10.1% vs. 14.7%, HR 0.64, p=0.07, CI 0.399–1.041, Figure A) and significantly lower MACC rate (17.5% vs. 23.4%, HR 0.66, p=0.03, CI 0.458–0.961, Figure B). Of MVD-PCI patients, staged PCI showed numerically lower CV death rate (5.1% vs. 11.9%, HR 0.40, p=0.09, CI 0.141–1.667) and MACC (12.7% vs. 19.0%, HR 0.63, p=0.20, CI 0.319–1.277) compared to simultaneous PCI.

CONCLUSIONS In 2nd generation DES era, MVD-PCI was associated with better long term outcomes compared to culprit-only PCI in patients with STEMI with MVD.

KEYWORDS Multivessel percutaneous coronary intervention, Myocardial infarction, acute

TCT-180 Predisposing and Precipitating Factors in Men with Spontaneous Coronary Artery Dissection

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BACKGROUND Spontaneous coronary artery dissection (SCAD) is an acute coronary event of a non-atherosclerotic etiology, and predominantly affects younger women. SCAD remains underdiagnosed and a rare cause of myocardial infarction (MI) in men. Predisposing and precipitating factors remains poorly understood in men with SCAD.

METHODS Men with SCAD evaluated at Vancouver General Hospital were included in this cohort. Angiographic SCAD diagnosis was categorized as type 1 (multiple lumen), 2 (diffuse stenosis), or 3 (mimic atherosclerosis). Fibromuscular dysplasia (FMD) screening of renal, iliac, and cerebrovascular arteries were performed with catheter angiography, or computed-tomographic/magnetic-resonance angiography. Baseline predisposing and precipitating conditions, angiographic, revascularization, and inhospital events were recorded.

RESULTS We identified 19 men with SCAD; their mean age was 46.7±8.9 years. A precipitating stressor was readily identified in 14/19 (73.7%), with 8/19 (42.1%) performing extreme isometric exertion prior to SCAD. The other factors included 4 (21.1%) emotional/social stressors, 1(5.2%) work stressor, and 1(5.2%) due to severe illness. FMD was diagnosed in 9 (47.4%) men (4 had isometric exertion prior to SCAD). All presented with MI. ECG was abnormal in 68.4%(13/19) with 10.5%(2/19) having ST-segment elevation. Three (15.8%) men had multi-vessel SCAD. Majority had type 2 angiographic SCAD 57.9%(11), 36.8%(7) had type 1, and 5.2%(1) had type 3. The majority 84.2%(16) were treated conservatively, 15.8%(3) underwent percutaneous coronary intervention (2 with DES and 1 with BMS). One patient died within 30 days due to septic shock from ulcerative colitis. During mean follow-up of 10±13 months, 2 (10.5%) had a recurrent SCAD event. One patient also had dissection of his carotid artery prior to his SCAD event.

CONCLUSIONS In our small cohort of men with SCAD, patients either had FMD or performed severe isometric exertion as their predisposing or precipitating factor for their SCAD event.

CATEGORIES CORONARY: Acute Coronary Syndromes

TCT-181 Uric acid is neither the risk factor nor prognostic factor for clinical outcomes during 3-year follow-up period in coronary vasospastic angina

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BACKGROUND Vasospastic angina (VSA) is endothelial dysfunction of the coronary artery. It has been reported that a major cause of coronary vasospasm is endothelial dysfunction. However, it is controversial that uric acid is associated with coronary vasospastic angina and there has been no study for uric acid to become prognostic factor in coronary vasospastic angina.

METHODS A total 3828 patients (pts) undergoing coronary angiography with acetylcholine provocation test from Mar 2004 to Sep 2012 from prospective vasospasm registry of Cardiovascular Center of Korea University Guro Hospital were enrolled. The definition of positive coronary spasm test was defined as coronary vasospasm of more than 70%. The level of serum uric acid was categorized into each quartile group; less than 3.8, 3.9-4.7, 4.8-5.7, and more than 5.8 mg/dL. Major adverse cardiovascular events (MACEs) were defined as the composite end-point consisted of recurrent chest pain requiring repeat coronary angiography, cardiac death, myocardial infarction, and cerebrovascular disease. The duration of follow-up for MACES was 3-year. The rate of follow-up was the 2340 of 3828 pts (61.1%).

RESULTS There was no statistical significance in the level of serum uric acid between negative and positive coronary spasm groups in