revascularization of the culprit lesion in 67.5% of patients (23 - PCI, 1- ACTP, 1 CAGB) with in-hospital death of 8% (3 patients: 2 cases which the discharge 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 MACCE (p = 0.0010). PCI was successful in 99.5% 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 MACCE 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.

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 predominately 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 5.3% (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.

KEYWORDS Spontaneous coronary artery dissection

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 Acute coronary syndromes

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female gender but in male gender, uric acid was higher in negative coronary artery spasm (Table 1). However, when adjusted by age, the statistical significance disappeared (OR, 0.965; 95% CI, 0.898-1.037; P-value, 0.335). The incidence of MACE was 11.1% in male gender and 8.6% in female gender. In male gender, the serum uric acid level between the groups with and without MACE was similar but in female gender, the level of uric acid was higher in the group with MACE, compare to the group without MACE. However, when adjusted by age, uric acid was not associated with MACE (Table 2).

CONCLUSIONS In our study, uric acid was neither the risk factor nor prognostic factor for clinical outcomes during 3-year follow-up period in coronary vasospastic angina regardless of gender.

CATEGORIES CORONARY: Acute Coronary Syndromes
KEYWORDS Risk factors, Vasospastic angina

TCT-182
One-year Outcomes With Prasugrel (Pre-)Treatment in Routine Practice: Early Results from the Dutch, Multicenter and Observational Rijnmond Collective Cardiology Research (CCR) Study
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BACKGROUND Increased platelet inhibition by prasugrel has been shown to result in reduced ischemic events along with greater bleeding hazards in patients with acute coronary syndromes (ACS) treated with percutaneous coronary intervention (PCI). Yet, there is limited experience with the use of prasugrel in routine practice. We evaluated 1-year outcomes with routine prasugrel treatment after ACS in a large-scale registry.

METHODS The Rijnmond Collective Cardiology Research (CCR) registry is a prospective, observational study with enrollment of 4,259 PCI-treated ACS patients with 1-year follow-up in the larger region of Rotterdam, the Netherlands. Based on implemented hospital protocols, all patients received prasugrel as first-choice antiplatelet agent, unless contraindicated, including pretreatment before arrival at cathlab either pre-hospital (ambulance), in referring hospital or in-hospital (emergency room or coronary care unit), whenever possible. All events are validated by an independent clinical endpoint committee.

RESULTS A total number of 2729 patients (64%) received prasugrel in the registry after the index event. Half of these patients presented with ST-elevation myocardial infarction, 77% were men, and mean age was 60.1±10.8 years. Reasons for not subscribing prasugrel included, for instance, age >75 years (n=611 [42% of pts receiving clopidogrel]) and previous stroke or TIA (n=270 [18.4%]). At the time of current abstract submission, 70% of all study events were validated. At 1 year, the primary endpoint, a composite of all-cause death and myocardial infarction, occurred in 2.9% of patients receiving prasugrel. All-cause death occurred in 2.0%, myocardial infarction in 1.0%, target-vessel revascularization in 2.1%, stent thrombosis in 0.5%, and stroke in 0.3% of the prasugrel-treated patients. The safety endpoint of all Thrombolysis in Myocardial Infarction major bleeding episodes, whether related or not to coronary-artery bypass grafting was observed in 11.1% of patients receiving prasugrel. At TCT 2015, the remaining events will be validated and available for presentation.

CONCLUSIONS Early results from the CCR study show that prasugrel-treated ACS patients have low rates of ischemic events, including overall mortality, and no excess rates of major bleeding in routine practice up to 1 year post-PCI.

CATEGORIES CORONARY: Acute Coronary Syndromes
KEYWORDS Coronary angiography, Patients with Previously Normal Coronary Arteries
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BACKGROUND Coronary artery disease (CAD) is a serious public and economic health problem. Coronary angiography is a gold standard for diagnosis of CAD and is indicated in patients with ≥70% probability of the disease when the diagnosis cannot be made on clinical grounds alone and when revascularization is being considered. Around 25% of coronary angiograms demonstrate normal arteries. The natural history of normal coronary angiogram is poorly understood. We evaluated the progression of disease in patients with normal coronary angiography and assessed the overall survival and event-free survival from acute myocardial infarction in these patients.

METHODS We interrogated the Central Cardiac Audit Database (CCAD) between November 2005 and December 2013 to identify patients with normal or ‘near-normal’ coronary angiography. Demographic, clinical and angiographic data was recorded. This database was linked with the Patient Episode Database for Wales (PEDW) and the datasets from the Office for National Statistics (for mortality) using the Secure Anonymized Information Linkage (SAIL) database. This allowed for the extraction of information from all the sources above on the basis of the International Statistical Classification of Diseases (ICD-10) using the Structured Query Language (SQL).

RESULTS Out of over 20,000 patients undergoing coronary angiography between November 2005 and December 2013, 5032 patients had normal coronaries and minor CAD. Of 5032 patients, 136 underwent repeat angiography with 131 (96.3%) and 53 (7.7%) patients having two and three repeat investigations respectively. Mean time between procedures was 3.3 (±1.82) years. Of those 136 patients, at the median follow up of 6.8 years, no change in disease progression was demonstrated in 108/136 patients on the follow-up studies. In the remaining 28 (20.6%) patients, normal coronaries progressed to minor CAD. No patients progressed beyond minor CAD. Patients with normal coronaries had significant better survival than patients with minor CAD (p<0.05), but survival free from MI was ~99.5% in both groups at the median of 5 years follow up. (p<0.05)

CONCLUSIONS Normal coronary angiography and minor CAD is unlikely to progress to significant disease at 7 years and the incidence of MI in these patients is rare at 5 years. Therefore, repeating coronary angiography within at least 5 years is not indicated.

CATEGORIES CORONARY: Acute Coronary Syndromes
KEYWORDS Coronary angiography, Coronary artery disease
TCT-184
Duration of Dual Antiplatelet Therapy Following Drug-Eluting Stent Implantation in Patients with ACS vs. non-ACS: A Systematic Review and Meta-Analysis of Randomized Controlled Trials
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BACKGROUND Coronary artery disease (CAD) is a serious public and economic health problem. Coronary angiography is a gold standard for diagnosis of CAD and is indicated in patients with ≥70% probability of the disease when the diagnosis cannot be made on clinical grounds alone and when revascularization is being considered. Around 25% of coronary angiograms demonstrate normal arteries. The natural history of normal coronary angiogram is poorly understood. We evaluated the progression of disease in patients with normal coronary angiography and assessed the overall survival and event-free survival from acute myocardial infarction in these patients.

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CONCLUSIONS Normal coronary angiography and minor CAD is unlikely to progress to significant disease at 7 years and the incidence of MI in these patients is rare at 5 years. Therefore, repeating coronary angiography within at least 5 years is not indicated.

CATEGORIES CORONARY: Acute Coronary Syndromes
KEYWORDS Coronary angiography, Coronary artery disease