including discrimination between the thrombotic and atherosclerotic plaque components. We sought to investigate the feasibility of thrombus quantification and its monitoring in patients with high thrombotic burden acute coronary syndromes.

Methods: Patients with successfully revascularized acute coronary syndromes and a large thrombus burden on initial coronary angiography who beneficiated from repeated TD-OCT examinations in our institution were suitable for inclusion. Coronary lesion stenosis degree was determined by quantitative coronary angiography (QCA) methods. Thrombus volume, maximal surface and minimal luminal area (MLA) were quantified by serial area measurement within the athero-thrombotic culprit lesion in 1 mm intervals before any stenting.

Results: Eleven patients underwent 2 consecutive TD-OCT examinations. The OCT image quality was suitable for thrombus quantification in n=9 subjects (89% men/ age=62.4±5.7y/ 89% STEMI). All patients were under anticoagulant and dual antiplatelet therapy between the two procedures (mean delay: 4.1± 0.4 days). No adverse events were observed following OCT analysis.

We measured a progressive reduction of thrombus burden between the two analysis, as assessed by the decrease of thrombus volume (5.3±1.7 vs.11.0±3.4 mm3, p=0.004), length (7.4±1.0 vs. 10.9±1.8 mm, p=0.02) and increase of MLA (2.5±0.6 mm^2 vs. 1.8±0.3 $mm^{2,}$ p=0.02). However, the degree of stenosis analyzed by QCA didn't significantly decrease over time (49.7±4.6% vs. 55.7±6.6%, p= 0.15). The thrombus volume reduction was time dependent, as witnessed by the high correlation between the percentage of thrombus volume decrease and the delay between analysis (R=0.87, p=0.002). The observed thrombus volume reduction rate was evaluated to 12% of the initial volume per day under medical therapy.

Conclusion: TD-OCT assessment of thrombus volume in patients with ACS is feasible, safe and could allow in vivo clot regression monitoring.

037

Observatoire Français des SyndromEs de TakoTsubo (OFSETT): A French registry of TakoTsubo syndrome in non-academic hospitals

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Background: We report on the management of and processes of care in consecutive patients with Takotsubo syndrome using data from a French registry (OFSETT).

Methods: Between November 2010 and December 2011, 15 non-academic hospitals included consecutive patients diagnosed with Takotsubo syndrome according to the Mayo clinic diagnostic criteria.

Results: A total of 121 patients were enrolled: 89% were women and the mean age was 72±12 years. Most of the women (89%) were >50 years' old; 8% of patients had diabetes, 30% were current smokers and 52% had hypertension. Symptoms of Takotsubo syndrome were chest pain (81%), dyspnoea (27%) and/ or syncope (5%). The mean maximum troponin level was 7.8 ng/mL and the mean maximum B-type natriuretic peptide level was 1013 pg/mL. ECG showed a negative T wave in 73%, ST elevation in 42% and/or a new Q wave in 29% of patients. One patient was treated with fibrinolysis. Coronary angiography was performed in all patients. Coronary arteries were angiographically normal in 78% of patients and showed <50% stenosis in 22%. Left ventricle (LV) angiography showed apical ballooning in 35% of patients. The mean LV ejection fraction was 42±13% on echocardiography and 46±10% on angiography. The target event was identified in 55% of the patients: mental stress in 61% and physical stress in 29%. In-hospital treatment included nitrates (11% of patients), unfractionated heparin (25%), low-molecular-weight heparin (79%), aspirin (91%), antiplatelets (82%), and angiotensin-converting enzyme inhibitors/angiotensin receptor inhibitors (ACE/ARB) (75%). None of the patients died during hospitalization. At discharge, patients were treated with aspirin (59%), statins (46%), beta-blockers (75%), ACE/ARB (79%) and/or neurotropic agents (26%).

Conclusion: These observational data from 15 non-academic French hospitals provide insights into the characteristics of patients with Takotsubo syndrome and current processes of care for this population.

038

In type 2 diabetic patients at goal for LDL-cholesterol, atherogenic dyslipidemia is associated with an increased risk of asymptomatic coronary artery disease

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Objective: To investigate whether elevated triglycerides and low high-density lipoprotein (HDL) cholesterol (atherogenic dyslipidemia) are predictive of risk for silent myocardial ischemia (SMI) or angiographic coronary artery disease (CAD) in asymptomatic patients with type 2 diabetes.

Methods: Cohort study in 1080 asymptomatic patients with type 2 diabetes, a normal 12-lead resting electrocardiogram (ECG), at least one additional cardiovascular risk factor and low density lipoprotein (LDL) cholesterol <3.4 mmol/L. Patients initially underwent screening for SMI by ^{201}thallium myocardial scintigraphy after an ECG stress test, a pharmacological stress test (dipyridamole injection), or both. Patients with SMI underwent coronary angiography.

Results: SMI was detected in 292 patients and CAD in 91 patients. Overall, 60 (5.5%) patients had atherogenic dyslipidemia (triglycerides ≥2.04 g/l mmol/L and HDL cholesterol ≤0,34 g/l), which was associated with SMI (40.0 vs 26.3%, p<0.001) and CAD (22.2 vs 8.3%, p<0.001). In multivariate analyses taking into account the parameters associated in univariate analyses with SMI and then CAD, SMI was associated with atherogenic dyslipidemia (odds ratio 1.8[1.0-3.3]), male gender (OR 2.1[1.5-2.9]), BMI (OR 0.97[0.94-1.00]), retinopathy (OR 1.4[1.1-1.9]), peripheral occlusive arterial disease (POAD: OR 2.5[1.6-3.8]) and mean blood pressure (OR 1.01[1.00-1.03]); CAD was associated with atherogenic dyslipidemia (OR 4.0[1.7-9.2]), male gender (OR 3.0[1.6-5.6]), BMI (OR 0.94[0.90-1.00]), retinopathy (OR 1.7[1.0-2.9], POAD (OR 4.0[2.1-7.4]) and mean blood pressure (OR 1.03[1.01-1.05]). In the subgroup of 584 patients at LDL cholesterol <2.6 mmol/L, CAD was also independently associated with atherogenic dyslipidemia (2.96 [0.97-9.03], p=0.06).

Conclusions: In type 2 diabetic patients including those at LDL cholesterol goal, atherogenic dyslipidemia is associated with an increased risk of silent CAD. Management targeted to this dyslipidemic profile may help to reduce the high residual burden of cardiovascular disease.

039

Platelet reactivity predicts both ischemic and bleeding events at one year follow-up in acute coronary syndome patients receiving prasugrel

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There are evidences of a link between platelet reactivity inhibition and thrombotic and bleeding events. We have previously demonstrated that PR after prasugrel loading dose (LD) predicts short-term thrombotic events. We aimed to further investigate the relationship between PR under prasugrel and one-year thrombotic and bleeding events.

Method: Patients were prospectively included in this multicentre study if they had a successful PCI for an acute coronary syndrome (ACS) and received prasugrel. Vasodilator-Stimulated Phosphoprotein (VASP index) was measured after prasugrel LD. Endpoint included the rate of thrombotic events (cardiovascular death, myocardial infarction and stent thrombosis) and bleeding events (TIMI) at one year.

▶

Results: Three hundreds and one patients were enrolled. Nine patients (3%) were lost to follow-up at one year. The rates of thrombotic and bleeding events at one year were 7.5 and 6.8% respectively. The mean VASP index after a 60 mg LD of prasugrel was 34}23% and 76 patients (25%) were considered as having high on-treatment platelet reactivity (HTPR). Patients with HTPR had a higher rate of thrombotic events compared to good responders (19.7 vs 3.1%;p<0.001). Patients with a minor or major non-CABG related TIMI bleeding had lower PR compared to patients with no bleeding events (21}18 vs 35}23%;p=0.008). In multivariate analysis, the VASP index predicted both thrombotic and bleeding events (OR: 1.44 (95% CI: 1.2-1.72; p<0.001 and 0.75 (95% CI: 0.59-0.96;p=0.024 (respectively, per 10% increase)).

Conclusion: Platelet reactivity measurement after prasugrel LD predicts both ischemic and bleedings events at one year follow-up for ACS patients undergoing PCI.

040

Myocardial bridging: comparative analysis of coronary angiography and autopsy results

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Background: Myocardial bridge (MB) is congenital myocardial band overriding a portion of a coronary artery, mainly LAD. Incidence on coronary angiography (CA) appears lesser than on autopsy, which can be ethnics-related, while clinically all forms of coronary artery disease (CAD) are reported: from benign arrhytmias up to sudden death.

Aim: We sought to determine incidence of MBs in the Serbian population along with respective clinical features.

Methods: Retrospective analysis was carried out in the same population, during the same 1-year time-frame and comprised consecutive: **(A)** 721 autopsies, with LM studies of the tunneled vessel (TV) wall together with the morphometric analysis of the ventricular myocardium supplied by TV (experimental group) and the ventricular myocardium of the same heart but with a different blood supply (control group); **(B)** 4510 CA of symptomatic patients were re-assessed for presence of MBs.

Results: (A) MBs were described in 6 cases (0.8%): 5 male, all over 70yrs. Only single MB over LAD were found, while all showed: **a)** TV' intensive atherosclerotic changes proximal to MB, only focal in the tunneled part; **b)** intensive interstitial fibroses of the TV-supplied myocardium. **(B)** MBs were found in 42pts (0.93%): 33 male, aged of 55+11yrs, with single MB over the mid-LAD. 29% were CAD-free, 43% had 1-vessel CAD, 2-v-CAD (24%) and 3-v-CAD (4%). MBs were most frequent in hearts with right coronary dominance (69%). Hypertension and smoking were equally present (69%), dyslipidemia (59%), family history of CAD (48%) and diabetes (21%). Pts presented with stable angina (40%), nonspecific symptoms (14%), unstable angina (7%) and supraventricular arrhythmia (5%), with a history of an anterior wall STEMI *vs*. NSTEMI in 26% *vs*. 7%.

Conclusions: This first overview of MBs-incidence in Serbia (0.8% on autopsy *vs*. 0.9% on CA) might underestimate its actual presence, which prompted us to continue prospectively.

041

Microalbuminuria and uric acid in acute coronary syndrome

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Background: Microalbuminuria and uric acid are emerging as new coronary risk factors in diabetics and non diabetics, their prevalence as well as their prognostic value in patients with acute coronary syndrome (ACS) are still unclear.

Methods: We propose a prospective study of 175 patients admitted with ACS with ST segment elevation (mean age of 57, 7±9.6 years (28-89 years), 71% are male, 53% are diabetics, 44% are hypertensive, 12% are followed for chronic renal failure and 14.7% are overweight. The SCA affected the anterior territory in 51% of cases. A primary angioplasty was performed in 26% of cases and a fibrinolysis in 52% of cases.

Results: Microalbuminuria is positive in 22% of cases, affecting 42% of diabetics and 8.7% of non diabetics, the rate of microalbuminuria is correlated with the blood sugar level in diabetic and non diabetic (r=0.650, p=0.01 and r=0.687, p=0.02).

The uric acid is correlated to the serum creatinine level and the peak of troponin in patients with a creatinine clearance> 60 ml/mn (r=0.690, P=0.02 and r=0.740, p=0.001). The uric acid is also correlated to the number of affected coronary arteries (r=0.602, p=0.02). The rate of microalbuminuria is correlated to the distribution of atherosclerosis 13±8 mg in single vessel disease vs. 15±7 mg in two vessel disease Vs 29±5 mg in three vessel disease, p=0.02. In univariate and multivariate analysis, 56% of patients who have microalbuminuria presented a three vessel disease vs 23% among other patients, p=0.01, OR=6.9 (95% ICA 1.7-23) independently of diabetes and hypertension.

Conclusion: The uric acid is not correlated to the diffusion of atherosclerosis after adjustment to diabetes and kidney failure.

042

Real life dual antiplatelet therapy after NSTE-ACS in a Tunisian population: is there a need for 12 months of treatment?

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Aim: Even if the recommended duration for dual antiplatelet therapy (DAT) after non ST elevation acute coronary syndromes (NSTE-ACS) is 12 months, evidence concerning the benefit of clopidogrel adjunction especially beyond 3 months remains poor. The aim of the study was to assess the effective clopidogrel intake and the incidence of a composite endpoint including all causes death and non fatal myocardial infarction in a Tunisian population after NSTE-ACS.

Methods: We included patients admitted for NSTE-ACS in our department between January 2010 and August 2011 for whom long term evaluation was possible. In-hospital deaths were excluded (including post operative deaths). By telephone follow up, we evaluated the effective DAT duration and the occurrence of all causes death and non-fatal myocardial infarction.

Results: One hundred thirty patients were included. Mean (SD) follow up was 261 (99) days. DAT was effectively observed during 94±103 days (extremes ranging from 0 to 360 days). Angioplasty was performed in 51.5%, coronary artery bypass graft in 8.4% and medical therapy was considered in 40.1%. In 35 (26.9%) patients, aspirin was the only antiplatelet therapy taken after discharge although DAT was prescribed; 46.9% of the patients took the DAT for more than 3 months, and 23.1% for more than 6 months. The composite endpoint occurred in 6 (4.6%) patients: 2 deaths (both of cardiac causes) and 4 myocardial infarctions. Three of them were under DAT, and the 3 others remained event free during 7, 240 and 270 days after clopidogrel withdrawal. These findings suggest that DAT does not protect against death or myocardial infarction. The rebound phenomenon after clopidogrel withdrawal isn't patent in our population.

Conclusion: In the Tunisian context, DAT observance is poor after NSTE-ACS. Death and non fatal myocardial infarction don't seem to be reduced by DAT and the rebound phenomenon after clopidogrel withdrawal isn't patent. This may be in part attributed to the small sample of population and the predominantly low risk (as assessed by TIMI risk score), but larger studies are needed to strengthen the evidence for DAT after NSTE-ACS.